



ABSTRACT BOOK

The 3rd International Conference on Sustainable Innovation 2019 (ICoSI)



Focal Conferences

- ✓ ISHERSs (International Symposium on Social Sciences, Humanities, Education, and Religious Studies)
- ✓ ISETH (International Symposium on Engineering, Technology, and Health Sciences)
- ✓ ICoSA (International Conference on Sustainable Agriculture)
- ✓ ICoELTICs (International Conference on English Language Teaching, Literature & Linguistics)
- ✓ ICIEFI (International Conference on Islamic Economics and Financial Inclusion)
- ✓ ISCEIE (International Symposium on Civil, Environmental, and Infrastructure Engineering)
- ✓ ICONURS (International Conference on Nursing)
- ✓ ASIAN COL (Asian Conference on Comparative Laws)
- ✓ ICISDE (International Conference on Islamic Studies in the Digital Era)

 **Universitas Muhammadiyah Yogyakarta**
Jl. Brawijaya, Kasihan, Bantul, Yogyakarta 55183, Indonesia

 **July 30 – 31 2019**

Preface by the Chairman of the Third ICoSI 2019



Assalamu'alaikum wr.wb.,

Dear Participants,

Welcome to Yogyakarta. The city with a well-established learning environment and Javanese cultural ambience. It has been one of the main destinations for further education in Indonesia as well as tourism. Those combination has developed a unique living experience not only for the people who are seeking for the best education but also to someone who are trying to enjoy the lively daily life of Yogyane people.

The Third International Conference on Sustainable Innovation (ICoSI) 2019 which was held by Muhammadiyah University of Yogyakarta is a remarkable work of scientific effort, trying to serve as a scientific showcase of a vast range of field from technology and engineering, health sciences and nursing to social sciences, law, humanity, education and religious sciences composing 9 focal conferences under the ICoSI. Those are International Symposium of Engineering, Technology and Health Science (ISETHS), International Symposium of Social Science, Humanity, Education, and Religion Studies (ISHERS), International Symposium of Civil, Environmental, and Infrastructure Engineering (ISCEIE), International Conference of Islamic Economic and Finance Inclusion (ICIEFI), International Conference of Nursing Science (ICoNurs), Asian Conference on Comparative Laws (ASIAN COL), International Conference on English Language Teaching, Literature & Linguistics (ICoELTics), International Conference on Sustainable Agriculture (ICoSA) and International Conference on Islamic Studies in Digital Era (ICISDE).

With the theme of “Sustainable Innovation in Disruptive Era”, this conference established two key points, namely “sustainability” and “innovation” which served as an umbrella theme for the 9 focal conferences. The relevancy of those words has taken into a more prominent place, nowadays, with the emergence of the current issue of sustainability in industry 4.0, where innovation is playing as a prominent factor. That lifted itself up to act as a showcase for academicians, policy maker and students alike to give broaden perspectives of how to keep innovative in this disruptive era. At this point, ICoSI 2019 is also a prove of significant sustainability from the previous conference in 2014 with the theme of “Technology and innovation challenges in natural resources and built environment management for humanity and sustainability”.

The supports of the focal conference led to the massive participation and successfully produce 842 full paper and 967 participants involving sixteen country (Australia, Germany, India, Japan, Malaysia, New Zealand, Norway, Paksitan, Philippines, Singapore, Sudan, Taiwan, Thailand, Turkiye, US, and Spain). Indeed, the richness of works presented has also meant the difficulty in the organization of the whole event. The complexity of the work can also be found in the selection

process of the articles. Nevertheless, as can be seen from the articles, the quality of the works is still unquestionable.

As the conference chairperson, I realize that the success of the conference depends on, first of all and unquestionably, Allah SWT, and certainly many people who have worked hard in planning and organizing the conference with us. Therefore, I would like to express my gratitude to the Steering committee and Organizing committee members who have worked extremely hard for the details and important aspects of the conference. I would also like to extend my gratitude to the Scientific committee who have done extraordinary work reviewing and providing constructive feedbacks for the abstracts and full papers from our participants. Last but not least, our gratitude also goes to the sponsors and co-host for their contribution to our conference.

I wish everyone a successful conference, a pleasant stay in the cultural city of Yogyakarta, and a success in every step of our lives.

Wassalamu'alaikum wr.wb.

Chairman of The Third ICoSI 2019

dr. Iman Permana, M.Kes., Ph.D

Welcome Remarks by Rector of Universitas Muhammadiyah Yogyakarta



“The best research is nothing without publication. The world-famous researcher can produce the best research but means nothing without sharing it to the world.”

In the past seven years, we have successfully organized the International Conference on Sustainable Innovation (ICoSI). ICoSI highlighted the importance of scientific innovation to sustain the life of the human race, preserve humanity, and strengthen our civilization through the power of knowledge, science, and wisdom. We believe that the future of our culture and civilization should be underpinned and sustained, not only by robust scientific discoveries but also the principles of humanity.

Initially, ICoSI had been successfully served as a forum within which scholars and researchers from two main polar of field of researches were met and shared their researches and ideas: social and technological sciences. The first ICoSI was held in 2012 and followed by the second in 2014. Currently, we are expanding the scope of the Third ICoSI 2019 to various field of researches ranges from technology and engineering to medical, nursing and social, education, humanity and religious studies. With more than eight hundreds of papers from different countries across Asia, Africa, Europe, Australia, and the United States, we are very proud that the two-day conference has been able to serve as a platform for invited respected scholars who have contributed to the body of knowledge in different academic fields, as well as to facilitate young researchers, senior lecturers, and even experienced policymakers to share perspectives, key issues, and research findings. It provides a best venue in the best place in Indonesia to share ideas, concepts, and of course, networking among academicians, practitioners, researchers, and people with the same interest alike, not only from Indonesia, but also internationally.

Since its inception in 1983, Universitas Muhammadiyah Yogyakarta (UMY) has been committed to promote the spirit of the Muhammadiyah movement in developing knowledge and technology as well as in fostering the welfare of the human beings based on the Islamic values. With the vision “To Be a Leading University Through Developing the Knowledge and Technology Based on the Islamic Values to Contribute a Proper Society”, Universitas Muhammadiyah Yogyakarta has been recognized as the 24th best universities in Indonesia and the 4th best private universities according to the UniRank in 2019 (<https://www.4icu.org/id/>). We believe that maintaining national and international leverage is important for us to establish our existence and without questions conferences and scientific and academic publications are the great vehicles to reach that goal. In the past ten years, UMY has organized a wide range of academic activities: learning process, research, scholarly publication, and community development projects. Indeed, with almost 500 publications were published in the Scopus indexed publications so far

(<http://sinta2.ristekdikti.go.id/affiliations/detail?id=1872&view=overview>), we are still striving to put ourselves better. Alhamdulillah, from 2013 to 2018, our publications were increasing 6 times higher.

Finally, I personally and on behalf of UMY as the host of the third ICoSI 2019 welcome all participants and thank you for your great participation. We do our best endeavors to organize the conference and expect that everyone can reach their goals: publishing their papers in the most excellent academic publishers. Not only that, we also try to provide a wonderful and great experience for all participants to a more cultural and social ambience of Yogyakarta. For sure, Yogyakarta, with its vibrant culture, provides you not only with many unforgettable cultural events and touristic spots but also with the friendly atmosphere and generous people. *Sugeng rawuh* and enjoy the fabulous Yogyakarta.

Yogyakarta, July 30, 2019

Rector of Universitas Muhammadiyah Yogyakarta

Dr. Gunawan Budiyanto



ICoSI

International
Conference
on Sustainable
Innovation

Book of Abstracts





ISCEIE 19

The 1st International Symposium on Civil,
Environmental, and Infrastructure Engineering

International Symposium of Civil, Environmental, and Infrastructure Engineering



Determining the Criteria of Air Hub in Indonesia using Analytical Hierarchy Process (AHP)

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Keywords:

Provision of infrastructure that encourages national connectivity will reduce transportation costs and logistic costs so that it can increase product competitiveness and accelerate the economic growth. Application of the optimum hub and spoke airport model will improve the efficiency of transportation costs and the effectiveness of air transport logistics distribution. The efforts are made by examining the parameters or criteria used to establish an airport as a hub airport. A nation with regional hub airport not only provides many job opportunities but also increases the nation's export's of electronic manufacturing products through high-density air route networking and frequent flight schedules. (Sasaki et al. 1999) considered the hub airport selection problem as a one-stop multiple allocation p-hub median problem. Parameters that influence hub airport selection are number of passenger, distance between airports' service networks. The aim of this research was to determine the parameters or criteria for establishing an airport as a hub airport using Analytical Hierarchy Process (AHP)

method. The study location was in five international airports in Indonesia namely Soekarno-Hatta International Airport in Cengkareng, Kuala Namu International Airport in Deli Serdang, Juanda International Airport in Surabaya, Ngurah Rai International Airport in Denpasar, and Sultan Hasanuddin International Airport in Makassar. Five parameters or criteria for determining an airport become a hub airport i.e.: airport charges/cost, cargo handling capacity, time used for handling cargo, value-added service, and location and infrastructure aspect. The most influential parameter or criteria is airport charges or costs that include: landing fees, airport parking fees and security charges with the value weight is 23.76%.

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M. Sasaki, A. Suzuki and Z. Drezner. (1999). On the selection of hub airports for an airline hub and spoke system, *Computers & Operation Research* 26 (14): 1411-1422

Feasibility Planning of Tuban Outer Ring Road Construction

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Keywords: Tuban outer ring road; Alternative route; Analytical Hierarchy Process; Time Value; Vehicle Operational Cost

In the document of East Java RTRW 2011 – 2031 shows a planning of strategic areas called Golden Triangle Development, Tuban is one of the triangle in.

Over this time, vehicles those across the city always using urban road causing the heavy vehicle traffic mixed with local traffic. One of the solutions is The

Construction of Tuban Ring Road (outer ring road). This final project will determine the alternative of Tuban ring road route to be more effective, and analyze the feasibility of the chosen alternative. Using The Analytical Hierarchy Procces method to choose best route from interview with some experts. The questionnaire which used in selection route is a pairwise comparison matrix, a matrix that compare several criteria as a key performance index, the weight value of each criterion are obtained (Saepudin et al. 2017). The result was found that altenative three be the chosen route. Saving of Vehicle Operational Cost of this ring road construction reach Rp 270.118.152.562 and saving of Time Value reach Rp 101.560.399.789. All cost of the

construction and land aquistition is Rp 799.629.618.714. Then the value of Benefit Cost Ratio is $4,28 > 1$ and amount of Net Present Value is Rp 2.705.937.413.332 > 0 . This study definitevely answer that the construction of Tuban Outer Ring Road with the chosen route is worthy for economic aspect.

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Sustainability of Enzyme-Mediated Calcite Precipitation (EMCP) Method for Soil Stabilization: A review

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Keywords: Calcite Precipitation; EICP; EMCP; Urease Enzyme; Soil improvement

Calcite induced precipitation methods (CIPM) are the recently potential technique in geotechnical engineering to improve the engineering properties of sandy soil. One of the most promised methods is enzyme-mediated calcite precipitation (EMCP). In this technique, the mixed solution composed of reagents and an enzyme of urease, which produces calcite, is used as the grouting solution. The precipitated calcium carbonate in sandy soil provides ties between the grains of sand, limiting their movement and, thus, leading to improving the strength and stiffness and also reducing the permeability of the sandy soil (Yasuhara et al. 2012). This paper presents a review of the application of EMCP for soil improvement method and discusses the additional

material and their effect on the treatment process and engineering properties of the sandy soil. Envisioned application, potential advantages and the limitation of EMCP for soil stabilization are also presented and discussed. Finally, the primary challenges and development opportunities for future research are briefly discussed.

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Sensitivity of Car Followers to The Moving Warning Sign

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Keywords:

A car follower's response and sensitivity are marked by its speed conversion that will generate either an acceleration or deceleration. The study equipped a hidden camera operated with the iOnRoad Augmented Driving Professional Program to find out the following vehicles' speed and acceleration. A design of warning sign was installed at the back of the tester car to determine the following drivers' sensitivity. The moving warning sign was made based on several standard requirements, which include size letter, dimension, font type, symbol and letter color, background color, and type of materials used, Federal Highway Administration (2009). The study carried out the tester car on the real traffic flow on the arterial and collector road by two conditions. The first condition was made as the tester car installed with a warning sign at its back. Meanwhile, the second condition was through the removal of the moving warning sign. At the condition of when the moving warning sign was removed, the sensitivity values (α) of

the car-followers on the arterial road were 0.622 and -4.045, while at the condition of when the moving warning sign was installed, the sensitivity values marked the numbers of 1.143 and -3.566. In contrast, the sensitivity values of the car-followers on the collector road were 0.953 and -2.647 at the condition of when the moving warning sign was removed, while the values marked the numbers of 1.723 and -2.229 at the time of when the moving warning sign was installed. The statistic indicated a significant degree of difference in regards to the drivers' sensitivity. To sum up, the warning sign installation at the back of the tester car could affect its following vehicles' sensitivity.

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Finite Element Analysis of Flexural Failure of High-Strength Reinforced Concrete Columns

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Keywords: concrete column; high-strength reinforced concrete; finite element analysis

At high-rise buildings, the column has a vital role in resisting gravity and earthquake load. The utilization of high-strength concrete and high-strength steel rebar at high-rise buildings can reduce columns dimension at the lower story. In this study, Nonlinear Finite Element Analysis was carried out to model the flexure behavior of high-strength reinforced concrete columns subjected to displacement-controlled monotonic loading and constant axial loading. There are two high-strength

reinforced concrete column specimens with a 600x600x1800 mm column dimension that are modeled using 3D finite-element analysis. The variables in this study are the axial loads. The axial load of $0.1A_g f'_c$ and $0.33A_g f'_c$ represents the low and high axial load on columns at high-rise buildings, respectively. The columns utilized with high-strength longitudinal reinforcement ($f_y=685\text{MPa}$), high-strength transverse reinforcement ($f_y=785\text{MPa}$) and compressive strength

of concrete of 70 MPa. The SD685 and SD 785 rebar were originally developed in Japan and modify slightly in Taiwan by TCI New High-Strength Reinforced Concrete Committee (2014). Finite element analysis is carried out with appropriate constitutive modeling of concrete and steel, material behavior parameters, geometric modeling, and mesh. The plasticity model was based on concrete plasticity under compressive models that can predict typical concrete behavior. The finite-element result showed that the prediction of the force -

drift relationship curves is relatively similar to the experimental results.

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Traffic Flow Analysis Due to Bottleneck (Case Study: Jatingaleh Underpass)

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Keywords: congestion; traffic; bottleneck; underpass

Underpass Jatingaleh is designed to solve congestion problem and reduce the rates at which accidents occur at intersections due to conflicts, but bottleneck can affect traffic performance. According to previous studies, traffic congestion can lead to an increase in local density, thereby negatively affecting the economy, Quek et al. 2014. This study aims to determine changes in traffic movements, traffic performance after the existence of Underpass based on MKJI (1997), analyze density with the Greenshield linear approach, and analyze the effect of bottleneck. To be more effective, the survey is conducted by using drones. Based on the analysis, the road performance becomes better, but some segments should be optimized because degree of saturation (DS) > 0.75. The vehicle speed results are 52.29; 55.49; 29.87; 26.28 Km / Hour in segment A; B; C; D and Segment Density C; D = 155.71; 152.86 pcu/Km. Vehicle speed on bottleneck Segments C and D, in Setia Budhi Street

does not meet the Primary Arterial Road criteria at 60 km / hour with very high density result. Bottleneck causes increased density, raises new conflict points (weaving), decreases vehicle speed up to 42-46%, and causes queue length of 0,150 Km. We propose that the Underpass it must be in accordance with the geometric requirements of MKJI, there should be no narrowing of the road in any segment.

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Evaluation of Pore Water Pressure and Seepage on Panohan Dam

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Keywords: Panohan Dam, Pore Water Pressure; Seepage

One of the causes of failure of a dam structure is the occurrence of seepage triggered by high pore water pressure that occurs in the body of the dam. Pore water pressure can cause the shear strength of the constituent material to decrease. In the Panohan Dam seepage occurs on the downstream slope of the dam which can disturb the stability of the Panohan Dam body. The purpose of this research is to evaluate the pore water pressure and seepage in the Panohan Dam body using the piezometer and v-notch instrumentation reading method on the Panohan Dam body which is then compared with the analysis of water pressure and seepage using numerical methods (finite element method) which was carried out at the detail design stage of the Panohan Dam. Pore water pressure analysis and seepage was carried out on the C-C cross of the Panohan Dam using several variations of reservoir water level. The comparison results show that pore water pressure in numerical modeling is greater than the pore water pressure value based on current

piezometer readings at minimal and normal water level conditions. In the condition of flood waters level there is an increase in pore water pressure which causes some results of the measurement of the piezometer to be greater than the results of numerical analysis. The seepage value of the v-notch reading on the body of the dam is greater than the seepage value from the analysis of the numerical model. From the value of seepage discharge that occurs at this time, Panohan Dam is in the category of unsafe conditions according to Look (2007), whereas according to Soedibyo (1987) the seepage discharge that occurs in Panohan Dam is still within safe limits.

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Analysis of Infrastructure Deficiency at Black Spot Area (Case study in Mayjend. Sungkono Street, Blater, Kalimantan, Purbalingga, Central Java, Indonesia)

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Keywords: black spot area; road geometric; infrastructure deficiency; road safety audit; traffic safety

The deficiency of road infrastructure is a reduction/decrease in the function of road infrastructure resulting in inefficient functioning of road infrastructure. This can trigger potential traffic accidents. Traffic accident is one of the serious problems in road traffic. Road crash are not only caused by the condition of vehicle and driver, but also due to many factors, including road design (horizontal and vertical

alignments), stop sight distance, road pavement condition, completeness of traffic signs or directions, and weather. The aim of this research was to analysis the road safety audit of infrastructure deficiency at black spot area in arterial road at Purbalingga. Road safety audit defined as a systematic approach for evaluation of existing or new roads by an independent audit team at the stages of planning, design, construction, operation

and maintenance to achieve accident free roads and to enhance overall safety performance (Sugiyanto et al., 2019). The study location was in Mayjend. Sungkono Street, Blater, Kalimantan, Purbalingga, Central Java, Indonesia. Three parameters that analyzed in road safety audit i.e.: condition of road geometric, condition of road pavement, and harmonization of road equipment facilities. The result of the study shows that some of road infrastructures must be repaired to reduce the potential traffic accident. Road geometric aspect involves the preceding sight distance and shoulder width. Aspect of road pavement condition involve lane or shoulder drop

off. Harmonization of road equipment aspect involves speed limit sign (40 and 50 km/h), warning sign along black spot location.

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Impact of High-Speed Train for Passenger Executive Train Jakarta-Surabaya Corridor

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Keywords: High-speed train

Due to the increasing demand for travel by train in recent years, the large potential number of passengers in Jakarta - Surabaya corridor needs to be anticipated with adequate transportation system planning so that the bottlenecks on available transportation network system can be minimized. This paper analyzes the potential competition between the demand of executive passenger train and Jakarta-Surabaya high-speed train which will be built by the Government as planned. This study only use travel time variables and ticket rates as independent variables between executive passenger train and high-speed train, then stated preference methods and binomial

logit models are used as tools for processing data. Lee et al. (2016) fare are the costs incurred for the payment of the transportation fee in rupiah per person, which is the cost of the Jakarta - Surabaya route. As a result, we believe that the operation of Jakarta-Surabaya high-speed train will have a negative impact on the demand of executive passenger train on this route.

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Future Transport System with Technology and its Chance for Indonesia: A Review

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Keywords: Sustainability; Future Transport; Technology; Indonesia; Adaptation

Transport sector was becoming important role for general nation development, including Indonesia. One of the increasing transport activity was due to technology used by people, like smartphone, online shop, etc. Transportation also affected by human behavior (Ma et al. 2017). In this paper, we present an overview of transport development by time based on a comprehensive literature and practical report in the real world. This paper also discussed how chance Indonesia overcomes transport demand to reach sustainability in Indonesia. Based on this review, transport development from past, current and future built by smart mobility concept through technology. Many alternative concept related with technology has been implemented as the solution for transport problem in the current also predicting the future, like organizing about transport plan by GPS, monitoring transport activity by CCTV, using Artificial Intelligent (AI) system to improve

comfortability, and safety in the public service and reach more about alternative energy source for future transport based from environmental friendly. Technology made prediction for future easier with more scientific calculation then fortune-telling. Indonesia has a big chance to adopt them but also consider about existing condition in Indonesia, like heterogeneous cultural and economical reason. Implementation about future transport system supported by transport policies was becoming primary key to reach sustainability in Indonesia.

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Transparency and Accountability Public Sector Procurement for Infrastructure in Indonesia: A Literature Review

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Keywords: transparency; accountability; infrastructure

Transparency and Accountability are two principles of good governance and need to be prioritized in applying the concept of good governance. Good governance requires open government (open government) as one of its fundamental (Kodar, 2012). Both of these principles have a close and mutually supportive relationship. Without transparency, there will be no accountability and without accountability, transparency means nothing. This study aims to discuss the relationship and position of these two principles

through criteria and methods based on literature review. According to the Construction Services Act, the selection of service providers as referred to in Article 41 which uses funding sources from state finances is carried out through tendering or selection, electronic procurement, direct appointment, and direct procurement in accordance with statutory provisions. Electronic procurement as referred to in paragraph (1) is the method of selecting Service Providers listed in the catalog. Data collection is sourced from Indonesian

legislation related to the procurement of Government goods / services. Equipped with articles that discuss transparency and accountability in the procurement of goods / services. However, from a number of articles that have been analyzed, few have specifically addressed infrastructure. The results of the study are presented in

the form of a model of transparency and accountability in the infrastructure public sector.

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Fresh Properties and Compressive Strength of Self Compacting Concrete with Fines Aggregate Replacement using Red Brick Powder and Rice Husk Ash

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Keywords: Self-Compacting Concrete; Flow-ability; Rice Husk Ash; Brick Masonry

This study discusses the results of fresh properties and compressive strength of self-compacting concrete using ingredients added Red Brick powder as a fine aggregate substitute. The results of the study were compared with the properties of fresh properties and compressive strength with ingredients added by rice husk ash, which is also a fine aggregate substitute. Some of the studies that have been successfully carried out are using aggregate recycle from fly ash and rice husk ash (Sua-Iam and Makul 2014). In addition, it was also examined the initial compressive strength of each of these variations in order to accelerate the completion time of construction projects using self-compacting concrete. Fresh properties testing is carried out in the form of V-Funnel, Flow Table, J-Ring and L-Box where all specimens produce quite varied flow rates.

Compressive strength was carried out at ages 3, 7 14 and 28 days with cylindrical specimens with a diameter of 150 mm and a height of 300 mm. the variation of fine aggregate substitutes used is 20%, 40%, and 60%. From the results of the compressive strength, it can be concluded that the added material is categorized as self-compacting concrete with high initial compressive strength, while at 28 days the compressive strength test results are categorized as high strength self-compacting concrete.

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Water Quality and Function Feasibility of Babon River in Semarang, Central Java, Indonesia

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Keywords: River; Water Quality; Class Function

The Central Java Province has many river watershed that are not known water quality, water class and its function. Babon Watershed is one of watershed where located at north slope of Ungaran Mount. Babon Watershed consist of three rivers basin, i.e. Gung (8,372 Ha), Pengkol (7,009 Ha), and Babon downstream (9,202 Ha). The main river is about 33,76 km length. Base on its function, from upstream to downstream of Babon Watershed can be divided into 8 segments. The research aims to measure water quality and water class, to know each function and to predict its pollutant load capacity. Data collecting method use sampling for each segment. Meanwhile, the parameters measured are Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), Dissolved Oxygen (DO), Natrium (Na), dan Phosphat (PO₄). The parameters analyzed included physical parameters (TDS, TSS, temperature, DHL, brightness), inorganic chemical

parameters (pH, BOD, COD, total P, NO₂, NO₃, N total, NH₃, Cl, F, Sulphate, H₂S, chlorine free, sulfur as H₂S), organic chemical parameters (oil-fat, detergent as MBAS, phenol), biological parameters (fecal coliform and total coliform) (Bsni, 2004). There are 17 sampling locations that consist of 9 location points in the main river, 5 points in the tributary, and 3 points random withdrawal. Data analysis was carried out based on Government Regulation No.82 of 2001. According to the analysis results obtained that in segment number I, II, III of Babon Watershed is recommended to function in class II, while segments number IV, V, VI, VII, VIII are recommended to function in class III, for 2.17 m³/s flow-rate can be COD 50 mg/l.

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Wave Simulation for Comparing Existing and Extended Jetty in River Estuary, Pekalongan, Central Java, Indonesia

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Keywords: Water; Estuary; Wave; simulation

Pekalongan River has two functions for fishing boat transportation and also the main drainage of Pekalongan City. The Pekalongan river estuary has Jetty located on two sides of the river mouth. The jetty used to protect to wave and sediment. Jetty (breakwater) has been built on both sides of the river mouth which is useful for

protecting sediment longshore transport and sediment Pekalongan River. (T. Wilms, 2016). The Pekalongan river had upstream flow from Kupang and Banger river. Because of the flood incident around 2003, Since 2014, the two rivers became two estuaries. This condition has a negative impact of sediment at the river mouth. So that

the research aims to find solutions by simulating waves, currents and sediments. In this paper the focus is about the wave simulation. This research method begins with the collection of primary data in the form of bathymetry measurements at the river mouth. While the secondary data is wind data for 13 years and tidal. Calculation of wind hindcasting can find wave significant high value of 1.38 m and a significant period of 4.80 seconds. For wave simulations using SMS software in the CGWave module. The simulation compares the two jetties

condition, in existing condition and development condition. Based on the simulation, the wave is still height for existing condition and less by extended jetty 200 lengths. The simulation results can be used to analyze the movement of sediment transport that is affected by the movement of waves around the river mouth.

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Mechanical Analysis of Environmentally Friendly Concrete Rubber

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Keywords: Rubber; green concrete; Compressive Strength

Tire production Indonesia has been constantly increasing by numbers from year to year along with a great amount causes the availability of abundant rubber tire waste, this waste has not been widely used and has unravelable properties leading into environmental pollution. In this research, we developed an environmentally friendly concrete innovations. This research aimed at determining the optimal value of concrete based on the rubber tire waste aggregate, compressive strength, tensile strength, elastic modulus and density of rubber concrete. This research is designed with quantitative method along with a laboratory true

experimental approach. The sample is part of the number and characteristics possessed by the population (Sugiyono, 2013). The results conclude that maximum compressive strength of rubber concrete was found in a variation of 5% with a strength of 19.42 MPa. Maximum split tensile strength of rubber concrete was found in a variation of 5% with a strength of 1.70 MPa, The weight of the minimum content of rubber concrete is found in a variation of 5% with a strength of 2418.02 kg / m³.

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Stability of Bengawan Solo River Embankment due to Various River Water Level

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Keywords: Bengawan Solo river; embankment; Kanor; water level change; suction

Issues on river embankment as the flood barrier system currently has increased due to plenty failures

occurred along dry and rainy seasons in Indonesia. Water level change along the seasons might be the primary cause of failures. Commonly saturated embankment stability is almost always applied in assessing safety factor. Even though, in-situ soil properties show different characteristics among the different water level, such as soil suction. Stated that is commonly known where the initial soil properties may change throughout a year due to the changeable seasons (dry and rainy seasons) (Satrya et al, 2017). In fact, suction or negative pore water pressure, that located above ground water table, has advantageous effect to increase the unsaturated embankment stability. This paper analyzes the saturated and unsaturated embankment stability in Bengawan Solo river at Kanor village section, Bojonegoro, East Java, Indonesia due to soil suction change along the various water level. Both analyses of water table definition and embankment stability are performed to determine safety factors. The field investigations were conducted to

obtain the actual in-situ soil properties. Safety factors are calculated for maximum, medium and low water levels. Safety factor varies due to various water level, it increases when the water level is increasing, while it decreases when the water is decreasing. It implies that the hydrostatic force enhances the stability condition. Because of negative pore water pressure consideration above ground water table, safety factor of unsaturated embankment stability is greater than safety factor of saturated embankment stability.

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Redesign Intersection with Roundabout and Pedestrian Service Analysis at 0 Km Yogyakarta

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Keywords: VISSIM; redesign

Malioboro Street is very well known as a tourism area connected with 0 KM Yogyakarta. Unfortunately, the traffic jam was often happened at the intersection of 0 KM. Since it is closed with the museum and the castle of Yogyakarta, there was a lot of pedestrian along the sidewalks. F. Falahuddin (2018) Hence, redesign of intersection and upgrade facilities of pedestrian were needed to improve the performance of the intersection. Using traffic and pedestrian volume, vehicle speed, and driving behavior as primary data and VISSIM as the modeling tools, the comparative performance of before and after the redesign was found. As a result, roundabout

gave better performance than signalize intersection at 0 KM area. Additionally, the compatible crossing facility for the intersection was pelican crossing by I. Prasetyaningsih (2010).

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Method Analysis to Determine Open Channel Dimensions in Pit Mine

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Keywords: Rainfall; Open Channel; Selection Method; Time of Concentration; Drainage.

In designing the dimensions of open channel in open pit mining, rainfall intensity, downstream runoff coefficient, and catchment area are three amongst many factors that will determine the amount of runoff water entering the pit and affect the dimensions of the open channels that are expected to handle the runoff water discharge. This research was done for two months at PT. ANTAM UBPN Sultra and aims to analyze the effect of the selection method for calculating time of concentration and rainfall plans for the dimensions of the drainage that are needed to handle the runoff water. This research uses primary data from direct observation on the field and secondary data based on rainfall data from BMKG station. Izzard, William, and field observation method are used to determine the time of concentration,

while maximum, average, and minimum alternatives are used to determine the rainfall plans. Both factors greatly influence the value of rainfall intensity. Warsito, Ulfa., Cahyadi, T.A., Setyowati, I. (2018). The results of this research are open channel (drainage) dimensions which are calculated based on analysis of several methods for rainfall intensity. It is expected that the results are appropriate and in accordance with the needs of the mine openings so that mining operations can run smoothly.

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Comparison of Infiltration Pattern in Homogeneous Soil of Various Grain Sizes Based on The Water-Ponding Model

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Keywords: infiltration; water-ponding; water-content; soil-column; soil-water

Water infiltration phenomenon through ground surface into the vadoze zone is often described by a water-ponding model. The description has been presented by researchers, but less of them have illustrated infiltration into homogenous soil of various grain sizes. The aim of this study is to compare water-content distribution and the speed of wetting zone in Silica Sand soil of various grain sizes based on the purely

physical movement approach. In this study, an infiltration process was simulated in a precisely soil-column apparatus by Neuman (1975), which was used as a physical model; it had a height of 50 cm and a diameter of 15 cm. The water content distribution was illustrated by using numerical simulation based on Richard's equation that was solved by finite different method with Crank-Nicolson scheme. Meanwhile, the function of

water-retention curve of the soil was predicted following van Genuchten parameters from measured logarithmic scale of negative soil-water tension and water-content values. The simulation results indicated that the speed of wetting fronts is decreased proportionately between soil size and ponding time that are apparent by means of comparison in logarithmic pattern. This simulation was

refining the previous water-ponding model of natural sand, silt and clay soils.

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Study of Roadroid Application Usage in Determining Road Pavement Functional Conditions

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Keywords: Pavement condition; Roadroid; IRI; PCI

In Indonesia, Pavement condition measurement tools did not fully distributed to every region, especially on the level regional road. This matter happens because the number of costs which needed to procure the measurement tools. To overcome the problem of the availability of this equipment, the agency that has authority over roads usually conducts visual surveys in determining the conditions of road pavement. In line with technological developments, many innovation had been made to determine functional conditions of road pavement road using minimum procurement cost. One of the innovations which were developed in determining pavement conditions is the use of smartphones to measure road pavement roughness. By using an installed mobile application on the smartphone roughness measurements can be done. Roadroid™ is a mobile application that can be used in these measurements. Roadroid application measures roughness on International Roughness Index (IRI). In this research roughness surveys was conducted to give a recommendation about the usage of Roadroid. The survey was conducted with various conditions such as differences in speed and testing repetition (Forsslöf and Jones 2015). Based on the analysis, it can be seen that

surveys with a speed of 20-40km/hour provide the best data quality in terms of repetition with repetition error is <20% (20m segmentation), <12% (50m segmentation), and <11% (100m segmentation). Roadroid has an accuracy issue that affects the sensitivity of IRI at certain segment intervals. Thus, the output data should be generated in large segments such as 100m. Based on the statistical analysis performed the best relationship between the conditions of pavement between the two methods (IRI and PCI) occurred at a survey speed of 20-40km / hour 100m segmentation with a correlation coefficient according to Spearman Rank test of 0.774 and 0.737 for Kendall Rank test. The correlation coefficient in the statement before shows that the pavement conditions based on Roadroid IRI of 20-40km/h have the best correlation with PCI pavement conditions. In terms of segmentation, the longer the segmentation interval give the greater the correlation between IRI Roadroid and PCI pavement conditions.

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Analysis Demand and Supply Parking Lot of Motorcycle Abu Bakar Ali Yogyakarta

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Keywords: parking; motorcycle; Abu Bakar Ali; Yogyakarta; Intelligent Transportation System (ITS)

Parking is an absolute requirement to support activities in commercial area. Recently parking lot of Abu Bakar Ali Yogyakarta is quite busy to accommodate motorcycle that will go to Malioboro, Yogyakarta. Hence this study aims to analyze the demand and supply of motorcycle parking lot of Abu Bakar Ali, Yogyakarta. The method employed in this study is a field survey to count the number of motor cycle entering and exiting parking lot and to estimate the parking capacity. The analysis results show that the maximum accumulation parking of motorcycle occurs on weekend which was equal to 401, while on weekday were 192 motorcycles. The static parking space was 2760 m² with a configuration using a 90 degrees pattern so it can accommodate 1306 motorcycles. The parking system is operated manually hence the users need longer time for

parking process. In addition, the information of parking space availability for the users cannot be accessed just in time that leads to less efficient services. Hence it is very important to apply Intelligent Transportation System, particularly to manage the parking lot of motorcycle in this area efficiently (Limantara et al. 2017).

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Circular Economy Model of Indonesian Construction Industry Waste Based on System Dynamics

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Keywords: Circular economy; Construction waste; Waste management; System Dynamics.

In recent years circular economy has been widely discussed throughout the world as a solution to the problem of resources efficiency and also environmental problems, especially regarding waste. The construction industry is one of the largest waste-producing industries, even 30% of waste on landfills is construction waste (Crawford et al. 2017). The application of circular economy in the construction industry has many interrelated and dynamic variables that change over time. This study aims to identify the variable of circular economy and analyze the pattern of its relationship using system dynamics method (Caulfield and Maj 2011). The variables were obtained from in-depth literature review and interviews, including management performance, low-waste technology, and behavior. Then from these variables a causal loop diagram is created. This diagram

describes the relationship between variables of circular economy. For model validation, a multi-storey building project in Surabaya is used as a case study. The results of the study shows that the behavior is one of the most impactful variable on waste reduction and recycle rate.

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Selection Model of Building Demolition Method Based on Expert System

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Keywords: demolition; demolition method; building; expert system; neurofuzzy.

Demolition needs special attention because the planning process is complex and has high risks (Yeheyis, et al. 2013). In decision making, practitioners are faced with various conditions that influence the choice of demolition methods. This study aims to develop an optimal model for building demolition methods according to building characteristics. Identification of criteria is done by in-depth literature review and interviews with practitioners who have carried out demolition in Indonesia. The five criteria used in this study are health and safety, the presence of hazardous materials, the shape and size of the structure, requires structural engineers and workplace security. Furthermore, neurofuzzy is used to make the optimum demolition method decision. Fuzzy is used to integrate quantitative and qualitative variables while the Neural

Network is to make decision making rules. Shiue, W. (2008) For validation the model uses 13 building condition that have been demolished and use case studies. Simulation results show that the proposed model is able to make accurate decisions on the selection of demolition methods.

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Acceleration of Decomposition Process by Lignocellulolytic Bacteria and Its Effect to The Physical and Engineering Properties of Kalimantan Fibrous Peat

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Keywords: acceleration; fibrous peat; fiber decomposition; lignocellulolytic bacteria

Peat is an organic soil which has very low bearing capacity and very high compressibility; its organic content is higher than 75%. ASTM Annual Book. (1984). Peat is classified into two categories, amorphous granular peat and fibrous peat (fiber content > 20%). Fibrous peat has higher bearing capacity compared to the amorphous one due to its fiber content (MacFarlane et al. 1965). When the fiber undergone decomposition, however, its bearing capacity drops and bigger

compression takes place. Due to that reasons, decomposition process of fibrous peat has to be accelerated before the construction starts in order to prevent the change of its properties. In this study, lignocellulolytic bacteria was used to accelerate the fiber decomposition. The results showed that 10% of bacteria with 28 days curing period given the optimum results. The fiber content decreased from 50% to 36.67% in 28 days curing period. The coarse and medium sizes of fiber

decreased 5.13% and 22.03%, respectively; but the fine fiber increased 27.16% because of the change of coarse and medium fiber. Its unit weight and specific gravity decreased 6.8% and 7.7%, respectively. The peat compression increased 22.95% compared to the initial one; but the internal friction angle decreased 27.29%.

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Analisis Pengaruh Penerapan Multi Lane Free Flow Terhadap Perubahan Kinerja Ramp On (Studi Kasus Pintu Masuk Tol Tebet 2)

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Keywords: MLFF; Toll Gate; Vissim

Queues at toll gates are still the main problem on the toll road. Removing this queue, therefore, is very important. The fact that the Indonesian government will implement the Multi Lane Free Flow (MLFF) system as solution is a good news. However, the Government needs to see more about the problems that might arise due to queues such as changes in traffic characteristics and arrival times of vehicles at the main toll road meeting point. In this study, the author conducted traffic modeling using Vissim software to predict changes in traffic patterns that occur by measuring changes in traffic volume and vehicle speed through ramp on and main toll roads (Fitrada et al. 2015). Traffic counting and vehicle

speed are carried out during the busy hours period of toll road services. The results of this study can solve post MLFF implementation problems so that their emergence can prevent in the future by predicting increased travel time after the implementation of MLFF.

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Community Participation Criteria to Achieve Sustainable Road Projects

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Keywords: road; community participation; sustainable development

The operational phase of the road project is considered successful when this type of facilities can improve the community's life. According to Budimanta (2005) the points out that sustainable development is a way of looking at activities carried out systematically and planned in the framework of improving welfare, quality of life, and the human environment without reducing access and opportunities for future generations to optimizing them. One of the criteria for the project that is said to be successful is by applying the concept of sustainable development, consisting of three aspects, namely economic, environmental, and social aspect. This paper discusses social aspects regarding the role of the community participation in road construction projects. In the existing practice, community participation was applied at the environmental impact assessment, considered as a form of formality to get

building permits. Previous researches on community participation have been carried out in several areas such as public buildings and urban planning. However, still limited research has been conducted in the area of road construction process. This paper investigates community participation criteria using mean analysis. The first conclusions from this research, there are 20 criteria for community participation to achieve a sustainable highway project in Surabaya.

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Functional Damage Assessment Visually On The Road Using Pavement Condition Index (PCI) (Study Case on Triwidadi Street, Pajangan, Bantul)

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Keywords: Bantul; Pavement Condition Index (PCI); Road Assessment; Road damage

The road is a land transportation infrastructure that is very important in facilitating social and economic activities of the community. Well-constructed road conditions will equip population mobility in social activities and social relations. However, road damage both in low and high level will result in not only obstruction of social and economic activities but also can cause accidents. Any road pavement structure will undergo a gradual destruction process since the road was first opened for traffic. In order to overcome this phenomenon, a method is needed to determine a road

maintenance program; that can be prepared by using the Pavement Condition Index (PCI) method. PCI is a visual survey method to rate the types of failure located on the road surface, ASTM (2007). The case study of this research is on Triwidadi Street, Pajangan, Bantul, Yogyakarta, and located 14 km from the zero points of Bantul Regency. This study reviewed the four km road. Based on the results of data analysis, the PCI segment value is 34.75 very poor. Also, it was found 13 types of road damage with a percentage value

of: Alligator Cracks 6.08%, Bump and Sags 6.98%, Corrugation 0.90%, Depression 5.86%, Edge Cracks 11.04%, Longitudinal Crack 22.07%, Patches 13.06%, Polished Aggregate 18.02%, Potholing 8.33%, Shoving 0.23%, Slippage Cracking 0.23%, Upheaval 0.23%, Raveling 6.98%. Furthermore, it was also obtained the percentage of PCI value of Km 14-15 is 45.2 (poor), Km 15-16 is 28.05 (very poor), Km 16-17 is 37.35 (very poor), Km 17-18 is 28.4 (very poor). According to PCI Decision Matrix, the optimum time of treatment is immediately reconstructed.

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Choice Probability Of Train As Ground Access Mode In Juanda International Airport, Sidoarjo, Indonesia

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Keywords: airport access mode; mode choice probability; multinomial logit model

Access travel to and from Juanda International Airport (JIA) currently faces a severe problem, due to relatively high travel time. The use of private vehicles as an access mode to the airport causes longer travel time. The government plans to introduce the train as an alternative access mode to JIA. This research aims to get the choice probability of train as an alternative access mode. Though this topic may not a new issue in airport access mode, however, the characteristics of the traveler and the distribution of the origin passengers become an interesting condition to be discussed. To measure the response to this mode acceptance, this research adopts mode choice probability using Multinomial Logit Model. Analysis of airport selection is done using the Nested Logit model, while the analysis of access mode selection uses the Multinomial Logit model (Gupta et al. 2008). Data of 900 respondents indicate the characteristics of travelers through JIA. Results of the analysis show that generally there is a low probability of train mode choice. The causes of the low probability are concluded in six factors. Those factors are mode convenience, mode operational management, social characteristic, mode accessibility, transport system characteristic, number of baggage and party size factor.

The total effect of the six factors is 61,23%. Based on the probability model of access mode choice, those factors affect the selecting of train, except the accessibility factor. It fails to enter the probability model formulation because it does not pass the partial test. Even though it is the most common influenced factor in public transport research. The six factors resulted from this research could become a reference to improve the train use probability. But, this behavior is considered as a shortage causing improper model if there are mutually correlated alternatives. Many researchers commonly use this model for analyzing the airport ground access mode choice (Tsambuolas and Nikoleris 2008).

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Good Project Design Indicators for Educational Building

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Keywords: design; building; good project design

Design is an important part of the process of creating a product, therefore a good design concept is needed. Good design which is actually a concept used in the context of urban design is called urban design. The aim of urban design is to provide social sustainability values to the community, including improving economic life, social relations, and providing safe, comfortable and easily accessible public spaces for all people regardless of physical ability. The purpose is in accordance with the objectives of several design concepts namely Universal Design. Concept of good project design have been carried out in several fields, such as technology, architecture, and urban planning. But there are however the concept of good project design in the field of construction management is still limited, therefore indicators are needed to measure the performance of a design, especially in educational building. Participatory design is a concept that actively involves end users in the decision making process

with other stakeholders such as designers, engineers, decision makers and the like to better understand their needs. The method used in this research is literature study to determine the pre-analysis of research variables. Then the distribution of questionnaires was used to collect perceptual data of respondents. Respondents from this study were consultants, government and communities as end users. To analyze perceptual data of respondents used statistical analysis in the form of initial analysis, factor analysis.

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The Validation of Equivalent Static Method on the Earthquake Load Design of Multi-Storey Structure

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Keywords: Static equivalent; time history; base shear; horizontal story forces; story shear forces

An equivalent static is an approach method to design the earthquake loads that must be calculated in the structure design. This method is practical and easy to apply, but it is only appropriate for low structures with high rigidity. This paper aims to investigate how high structures are still allowed to be designed using equivalent static earthquake loads. The validation was done by comparing the results of the equivalent static

analysis with the results of time history dynamic analysis representing the reality. For practical purposes, the equivalent static analysis is commonly used which is a simplification of dynamic analysis and it is restricted only to a single mode of vibration of the structure. The structure models were four 2D open resistant concrete frame, with 7, 9, 10 and 15 stories. The Analysis used the SAP2000 program resulting structure responses

including storey horizontal forces, base shear, storey shear forces and displacement. The result of the analysis shows that the 9-storey structure or higher must be analyzed using the time history dynamic method. The potential damage of structures designed using equivalent static methods is estimated at the bottom areas. This

result can be used as a consideration to choose an analysis method in earthquake resistant structural design.

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Determining Factors that Influence Model of Performance Assessment and Sustainability for National Roads

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Keywords: Relative Important Index; Pairwise Comparison; Triple Bottom Line; Sustainable Development

This study aims to determine factors influencing performance assessment of road infrastructure and design proposals for non-toll road performance and sustainability assessment models. According to Parikesit et al. (2004), studies of post-construction assessments of road infrastructure have received little attention; this can lead to a lack of information on the effectiveness of investments in the road sector. At the moment the statement is still relevant even though the intensity may have changed, where there are studies that have discussed post-construction assessments even though the amount is still limited compared to research that discusses assessment at the planning stage and the construction stage. Actually, in Indonesia, an assessment has been carried out in this direction through the search for the outcomes and impacts of a program/activity/project, but this process still needs to be developed. Meanwhile, according to Iskandar (2011) performance appraisal is also related to service to the public. Thus, in addition to fulfilling the SDG's, the assessment of performance and sustainability is also needed to evaluate the success of the program or activity itself as well as a form of responsibility to the public for the public funds used by the government to finance a program planned by the government. As of now, the existing assessment is limited to the construction of new roads and road improvements. It also still needs some exploration by using other sub-criteria that have not been

used, especially for roads that have been operated and maintained. The design of the road infrastructure performance assessment model is done by selecting sub criteria based on literature reviews and expert interviews. Then filtering out variables using relative important index (RII) and weighting variables using pairwise comparisons method. Based on the results of the analysis, economic criteria have the highest weight of 30%, followed by engineering criteria of 26%, then social criteria of 20.1%, environmental criteria of 12,1% and finally management criteria with weights of 11,8%. A paradigm change needs to be done so that in a development not only prioritizes the increase of economic activities, it also needs to be considered management aspects and environmental aspects, with the word weight gain on economic criteria and engineering criteria, can be reduced to minimize the gap with interests in the 2 criteria that have low weight.

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The effectiveness of Addition of Infilled Wall Against Earthquake Load in Building Models

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Keywords: Infilled Wall; SNI 1726-2012; open frame structure; and drift ratio

The Yogyakarta region is an area that has quite a high earthquake activity. Meanwhile, the usual earthquake resistant building design ignores the influence of wall stiffness. For this reason, it is necessary to evaluate the structural behavior of earthquake loads, if the infill wall is included in the analysis. Performance evaluation can provide information about the extent to which an earthquake will affect the structure of a building. This is important for evaluating the seismic behavior of post-melting building structures (Pranata, 2006). This research was conducted at the Postgraduate Building of the Faculty of Medicine, Gadjah Mada University. The purpose of this study is to look for the effect of displacement and interstory drift with additional infill walls. The important thing about performance-based evaluation is that the building's performance targets against earthquakes are clearly stated. The performance targets consist of earthquake events, and the level of allowable damage or level of performance (performance level) of the building against the earthquake event (Dewobroto, 2006). The research was conducted with ETABS software to make the model according to the actual conditions. The earthquake load simulated using equivalent static load and spectrum response. The structure model of the open frame structure building and the infill frame structure are modeled to compare the results. Result analysis shows

that interstory drift in the open frame structure model is not safe because it exceeds the permit limit. In analyzing earthquakes in buildings there are several variables that must be considered, namely horizontal deflection (drift) and the period of the building structure. Excessive drift will burden the structure and can damage buildings both structural and non-structural. On the other hand, the deformation of the structure means that some energy is dissipated from seismic forces (Ambrose & Vergun, 1999). Without proper consideration during the design process excessive deflection and drift can have adverse effects on structural elements, nonstructural elements, and time history methods (Sameer & Gore, 2016). While the infill frame structure of each floor is still within the range of permit values so that the structure deviation is still in the safe category as required by SNI 1726-2012.

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Experimental Study Of Column-Fondation Joint Using Semi Pricast System Subjected To Axial And Lateral Cyclic Loading

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Keywords: column-fonation; cyclic loading; bataton

Semi-precast column consists of the combination of cast-in-place concrete and segmental precast concrete. In semi-precast concrete column, difference in compressive strength exists between the cast-inplace and precast concrete. This aim of this research is to investigate the behaviour of column-fondation joint of semi-precast concrete column under axial and lateral cyclic loading. The behaviour of column-fondation joint of semi-precast concrete column has been evaluated by using ACI T1.1.2005. The result show that the column complies with acceptance criteria of ACI T1.1-05 at point c. Thereby column bataton can be used only at the moderate moment resisting frame system (SRPMM) of

precast concrete structure, with maximum value of R (modifications response factor) is 6 (ACI T1.1-05). Imran et.al., (2009) have done experimental research of connection between column and foundation using precast concrete system using still sleeves method.

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Quality Assessment of Pavement Road Using Lightweight Deflectometer

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Keywords: IRI; LWD; Elasticity Modulus; PCI

Quality assessment in existing road pavement is used to decide the right action for road preservation. In Indonesia, the quality is measured by functional parameter in riding quality using International Roughness Index (IRI) and visually using Pavement condition Index (PCI) to evaluate pavement condition. However road quality structurally can be assessed by measured the deflection and elasticity modulus by using light weight deflectometer (LWD) test. The Lightweight Deflectometer is a device that measures the vertical deformation that imparted by a falling mass impacting a plate resting on the ground. LWD also known as Portable Fallingweight Deflectometer (PFWD) which is one of the plate bearing test that using impact load that fall from

certain height. A buffer is used to decrease the rise time of the applied loading in order to better match that of vehicle traffic. The estimation of dynamic modulus (ELWD) is based on Boussinesq equation relating to the static deflection of an elastic half space subjected to an axisymmetric surface loading as given by eq 1[5,8] Three (4) segments of National arterial road in Kupang City, East Nusa Tenggara Province data are collected using Light weight defletometer test to find the elasticity modulus and then compared and analized with the result of IRI test on the same segments . The statistic result of mean, coefficient of varians and coefficient of correlation are obtained in this research and founded that there are no significance relation between IRI value and

stiffness modulus obtained by Lightweight Deflectometer test showed by the value of coefficient of correlation. According to the result, the basic assumption of the modulus (Evd) may be accepted because the result leads to correct evaluation of average stiffness modulus of the soil into the loading phase [11].

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Shear Strength Parameter of MSW Embankment Due To Decomposition Process

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Keywords: Ages, Municipal Solid Waste, Decomposition, Shear strength parameter, engineering properties

This research presents result of changes material of Municipal Solid Waste (MSW) embankments by decomposition process on engineering properties and shear strength parameters. The waste mechanics properties would be considered by selecting compenent such as shear strength, tensile strength, comprehensive strength, elongation at break (at given strain), and modulus of elasticity (Dixon, et al., 2008). It can be grouped by three cluster which has determined by ages of MSW. This research located on Piyungan MSW Embankment Yogyakarta. The characterization of MSW is necessary to describe the constituents of the engineering response (e.i., compaction, compressibility, hydraulic conductivity and shear strength) at MSW Embankment (Cox, 2013). In situ test by standard penetration tests (SPT) and material sampling by test pit. Characterization of engineering properties was determined by unit weight, water content, organic content and specific gravity. Also Shear strength parameter was determined by Triaxial test. Unit weight increased from the fresh embankment to the oldest embankment about 20.4%, also the results of shear strength parameter showed that cohesion value increased about 26.8% and the results of friction angles value increased about 9.8%. Also Triaxial shearing may be representative of the field shearing mode of waste in case of the back calculation of failed waste slopes. (Bray et al. 2008). The due to decomposition process on MSW embankment which has the oldest embankment can be decomposed to improve engineering properties and shear strength parameter more than the fresh MSW embankment. Decomposition effects was indicated by

organic content has been decreased about 35.6% from the fresh of MSW embankment to the oldest embankment. In accordance with the result of the analyses could be influence the slope stability analysis of waste embankment. Once researcher and practitioners agree on one or more consistent approaches for stress-deformation of MSW material should be directed toward the effect on the stress-deformation properties of degradation, aging, increased compaction etc (Fleming, 2008).

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Analysis Strategy of Workshop and Dormitory Building Utilization to Support Construction Training in Construction Service Office Unit IV Surabaya

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Keywords: Building Utilization; Strategy Formulation; Market Penetration

Construction Service Office Unit IV Surabaya is one of the work units of Ministry of Public Works and Housing. This work unit have the assets of a workshop and dormitory building which functions to support its duties in carrying out construction training. However, in terms of frequency of use and the level of utilization of the building is still low, so it is rarely used and has not been used optimally to support the duties and functions of the work unit especially for construction training. The purpose of this study was to analyze the strategies for the use and utilization of workshops and dormitories to support training in construction. This research is a case study with data collection techniques that use observation, semi-structured interviews and closed questionnaires to respondents from the workshop and dormitory building management at Construction Service Office Unit IV Surabaya. The sampling technique with purposive sampling is a sampling technique used by researchers if researchers have certain considerations in

sampling or determining samples for specific purposes (Riduwan, 2010).

To obtain the right strategy and in accordance with the internal and external environmental conditions of the work units, the strategy formulation include input stages with EFE and IFE Matrix, matching stages with SWOT Matrix, IE Matrix, SPACE Matrix, Grand Strategy Matrix and decision stages with QSPM. From the results of the study, the position of works units was in Quadrant 2, so the appropriate strategy was to improve cooperation with external parties, such as Local Government, Construction Services Associations, Construction Professional Certification Agency, Contractors and Vocational Schools to organize construction training that utilizes workshop buildings and dormitories.

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Analysis Of The Type Of Dominant Damage At The Drainage Pump Case Study: Surabaya City Pump Station

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Keywords: Drainage; Pump Station; Dominant Damage Type; Multi-Criteria Decision; AHP

Most of Surabaya area is lowland, which is 80,72% with an altitude between 3-8 meter above sea level, with a slope of less than 3%. Therefore, the city drainage system requires pump station operations to drain rainwater. One of the factors that can hinder the

performance of pump stations in flood management is the damage to the drainage pump unit. According to Fox and McDonald (1995), machines that add energy to the fluid by doing business/work on it are called pumps if the flow is liquid or slurry, and the fan, blower, or

compressor, depending on the increase in pressure for gas or steam. This study has succeeded in finding motor damage as the type of dominant damage at drainage pump in Surabaya. The analysis of the types of dominant damage using the Analytical Hierarchy Process (AHP) by determining the type of dominant damage as the objective in the first level hierarchy, the dominant damage criteria are at the second level, and the types of damage are at the third level as an alternative decision. (Aminbakhsh et al. 2013) studied risk assessment using the analytic hierarchy process (AHP) during the planning and budgeting of construction projects. Andriani et al. determined the most frequent (dominant) land subsidence impact using the analytic hierarchy process (AHP) (Andriani et al. 2018). Yudiono (2018) studied the implementation of the analytic hierarchy process (AHP) to analyze the selection of primary electrical power resources for pump station. The types of damage are obtained by processing historical-data of

pump damage in 2017 to 2018, while the criteria for determining the dominant kind of damage and the assessment in the AHP analysis are obtained from interviews and questionnaire with experts from the Surabaya city government and pump companies. The results of this study can be used to find the dominant causes of damage and forms of mitigation.

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The Performance of AC-WC Asphalt Mixture with Eco-Friendly Steel Slag Against Sea Tidal Impact

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Keywords: immersion; Marshall; sea puddles; seawater; steel slag

The roadways that located around the beach are often have some problems with seawater puddle that caused by the tidal condition or commonly known as rob water. In the coastal area, other factor related to seawater tidal could influence the road hardening, which is the existence of Chloride, Natrium and high content of Sulfate (Setiadji et al., 2017). Therefore, to find alternative way due to prevent pavement damage, the application of steel slag with higher quality is better to be used rather than ordinary aggregate. Steel slag is formed from minerals that are used as steel purifier in the high temperature furnace (Rahmawati, 2017). Water and air could accelerate the process of asphalt age deterioration; besides, water could cause the effect of asphalt film stripping on an aggregate (Syaifuddin, 2010). This steel slag has high level of coercion and rough surface; hence it is suitable to be applied as a blend for road hardening (Hartati, 2009). This research substitutes aggregate into the steel slag with 100% coarse aggregate sieve number 1/2" and 50% fine aggregate sieve number 30 that will be soaked in the seawater about 6 hours, 12 hours, and 24 hours,

respectively. From this research, the longer this immersion is conducted, the more significant effects will affect Marshall characteristic by resulting poor quality of asphalt, marked by the declining of stability value, VFWA value, and also MQ value. As for the value of flow, VITM and VMA are tended to rise.

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Numerical Modeling On Varying Patch Repair Size of Cracked Beam Using Engineering Cementitious Composites

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Keywords: Numerical Modeling; ECC; Repair; Patching; Cracked Beam

Engineered Cementitious Composites (ECC) is the cementitious based mortar that contains the specially selected PVA fiber having high tensile strength. ECC has been known to exhibit high ductility, high tensile strength, and improved durability performance. Thus, ECC is suitable as repairing material for patching cracked beam. There are many type of fiber to make the ECC such as Polypropylene (PP) (H. Liu et al. 2016). This study investigated about repairing cracked beam using ECC with different types of patching and the results are compared with repairs made by conventional concrete. Numerical analysis was conducted on a simply supported cracked beam with a dimension of 200x25x15 cm using ABAQUS software. Behavior of concrete and ECC in the simulation are described as concrete damage plasticity model. Normally, this concrete damaged plasticity was generally used for concrete material. In the CDP model assumed that there are 2 failure mechanism, they are concrete compressive crushing and tensile cracking (Wahalathantri et al. 2011). Linear elastic-plastic model was used to represent the behavior of rebar steel. The type of patching consisted of varying ratio of

lengths and depths, including patching length to total length ratios of 0.2, 0.3, and 0.4, and patching depth to total depth ratios of 0.2, 0.3, 0.4, and 0.5. Results show that variations in the patching length and depth ratios affect the maximum flexural load, stiffness, and ductility of the repaired beam. It was also found that repairing the cracked beam using ECC provides higher flexural load of the beam than the use of conventional concrete, due to the superior tensile strength of ECC.

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Method For The Selection Of Water Supply System (WSS) Project (Case Study: East Java Province WSS)

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Keywords: water supply system; infrastructure management; priority; selection; multi-criteria analysis

The availability of proper water is one indicator of the welfare of the Indonesian people, as stated in the settlement infrastructure development in the 2020-2024 target of 88% water service in 2024. The Government, through the PSPAM Working Unit, assists a stimulant program for Local Governments, in achieving water service targets. The limitation of the budget leads to the prioritisation of WSS projects. This study is aimed to develop a method for selecting WSS development programs with program priorities and budget optimisation. The existing method cannot assess the potential and water needs of the district and set program priorities to optimise the available budget. The main consideration in determining the priority of the SPAM development program are the Ministry of PUPR Policy, availability of funds, condition of PDAM, and commitments of local governments (Suprayitno et al. 2018). Planning for SPAM infrastructure development refers to existing conditions, including the status of the assets built. For this reason, it is necessary to manage infrastructure assets based on the principles of Infrastructure Asset Management. Infrastructure Asset Management is knowledge, science or program to manage the infrastructure to be able to execute its function sustainably, effectively, efficiently and always conform to the sustainability principle (Suprayitno & Soemitro, 2018). The selection method begins with the identification of existing WSS conditions and evaluates

the function of assets in each district. Priority sequence of the program was carried out by using Multi-Criteria Analysis (MCA) approach. Determination of priority criteria is based on the Strategic Policy for WSS Development, literature study and expert judgment. The priority sequence is the result of a calculation between the weighting of district criteria and the WSS project that carried out by experts by using Borda analysis method. The principle of the Borda method is to rank existing alternatives (Bouyssou, 2006). The budget optimisation process uses the breadth-first search algorithm to accommodate aspects of equitable development. The developed method will be recommended for PSPAM Working Unit to be used in the selection of WSS Infrastructure Development Programs.

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Effect of Adding Polypropylene Fibres to Flexural Strength of Ferrocement

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Keywords: Ferrocement; Polypropylene fibre; flexural strength

The development of lightweight structure is a growing trend in the construction industry all over the world. Ferrocement, a thin-shell concrete reinforced with layers of continuous wire mesh, had seen as an alternative material for this type of construction. However, due to the small thickness and large surface area of ferrocement, the potential of cracking due to drying shrinkage is high. In this study, application of Polypropylene fibres (PPF) in ferrocement mortar as secondary reinforcement has been utilised to control these cracks. This paper presents the effect of adding PPF on the behaviour of ferrocement subjected to flexural. Based on the experimental result, the addition of PPF improved the flexural strength of ferrocement

however too many fibres in the mortar will reduce the flexural strength due to poor compaction of cement mortar which leads to increases of air voids (Madhavi et al. 2014). It was found that under flexural test, 66.6% of the variation in flexural strength of ferrocement was dictated by volume fraction, Vr; 31.4% by percentage of PPF, Pf and 2% by the interaction of Pf and Vr.

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Irrigation Services for Balancing Water and Food Production Case Study : Wadaslintang, Sempor Irrigation Area, Central Java, Indonesia

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Keywords: irrigation system; balancing of water-food production; water utilization

A special attention for the Wadaslintang Irrigation System is considered, due to its expansive reach services. For reasonable water distribution in large areas, Kan and Shu, (1984), proposed an adjusted irrigation plan by lengthening the rotational irrigation periods in no water shortage conditions. This irrigation area consists of a vast 21,853 ha and includes two regencies that are Kebumen and Purworejo. Beside the irrigation interests, the

Wadaslintang Reservoir (122 million m³) is also used to supply the drinking water in the upstream to the downstream area with approximately 0,4 m³/s discharge and generate power. In downstream area, the system is connected with the Sempor System Irrigation (6.100 ha) especially in the Kejawang sub-irrigation system (480 ha). The connected irrigation system is used to ensure the availability of water during the dry season because the

water discharge from the Sempor irrigation system is not enough to irrigate the paddy fields in this area. The study intends to determine the adequacy of water used for various purposes. The conceptual framework consists of the balanced of water demand for drinking water and food production with the the comparison of water availability. Meanwhile, the study uses mixed quantitative and qualitative methods in acquiring the data from secondary services. In practice, water

utilization in the irrigation system has adapted to the needs of drinking water without reducing crop productivity.

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Juana River Flood Mapping

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Keywords: Juana River; Inundation Map; HEC-GeoRAS; HEC-RAS

Juana River is a river in Indonesia having high vulnerability degree toward flood occurrence. The major factors causing flood in Juana River are river slope having value 0,00001 and narrowing river channel. Therefore, the river witnesses discharge capacity reduction. Juana River flood mapping is necessary to analyze extent of inundated area, especially regarding disaster risk reduction activity. (Khattak et al. 2016) identified flood vulnerable area of Kabul River by employed HEC-RAS, HEC-GeoRAS, and GIS Tools. This study used GIS software to process Alos Palsar image as Juana Valley topography, HEC-RAS 4.1 application for modeling the unsteady river flow, and

HEC-GeoRAS 10.2 application to bridge HEC-RAS 4.1 results into GIS software. As hydraulic modelling boundary condition, this research used 52 Juana sub basin discharge having return period 50 years and tides level at Juana Estuary. Research results showed that the extent of flood due to Juana River discharge was 37,406 hectares in both Kudus and Pati.

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Comparison Analysis Of Road Preservation Of Long Segment Scheme And Conventional Scheme (Case Study : Satker Pelaksanaan Jalan Nasional Wilayah I Jawa Timur)

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Keywords: Long Segment Scheme, Conventional Scheme; Road Preservation; Independent sample t test; Satker Pelaksanaan Jalan Nasional Wilayah I Jawa Timur

Road preservation with a Long Segment Scheme is the handling of road maintenance within the boundary of a continuous segment length (can be more than one segment) carried out by one service provider. This Long Segment scheme came into force in 2016, which aims to optimize preservation funds, maintain the level of road services and improve the effectiveness of road maintenance (Bina Marga, 2018). The output of the Long Segment Scheme is in the form of widening, reconstruction, rehabilitation and routine maintenance. In Road Preservation with Conventional Schemes the handling of road maintenance by service providers is limited to a certain scope of output and can be carried out by more than one contractor, specifically for routine maintenance activities carried out in self-management. Both schemes certainly have advantages and disadvantages as well as differences influence. The purpose of this study is to compare the preservation of

Long Segment scheme and Conventional schemes. The research variable was obtained from three stages, procurement, implementation and maintenance stage. This study used the interview method and questionnaire to the expert then tested the validity and reliability. After that the variables are analyzed using the compare mean independent sample t test method which is processed using the SPSS application to obtain the dominant variable in each scheme then a comparative analysis is carried out between the two schemes. The result of this study is to get a comparison of the advantages and disadvantages of each stage implementation of the Long Segment and Conventional preservation schemes.

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Technical and Non-Technical Indicators for Service Index Modeling of Polder System with Retention Pond

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Keywords: flood management; polders; indicators

In flood management, polder system is one of many ways to decrease volume of flood, Schultz (2008). Government of DKI Jakarta Province already constructed polder system with retention pond in order to reduce floods in some area. To keep its function, there was some routine maintenance with appropriate budget of each polder, but somehow there are some situations

and conditions that have impact to the polder's functions and services. There are many aspects that have contributed in case of decreasing the capability of polder's service. In other hand, the Water Resources Agency of DKI Jakarta Province, who responsible of those polders, have not a guideline yet to evaluate the polder's services and then allocate the maintenance

budget for each polder. This research has analyzed variables and indicators that used to evaluate polder's services. Polders that used as a research's object are seven polders in DKI Jakarta, which are categorized in four different areas of polders. As the result of this research, for evaluate polder's services are more precisely by using 4 technical variables (Tx) with 17 indicators (tx) and 5 non-technical variables (NTx) with

15 indicators (ntx). These variables and indicators then could be used to evaluate the polder's service.

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Seismic Performance-based Evaluation of Academic Reinforced Concrete Building in Yogyakarta using Pushover Analysis and Time-history Records

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Keywords:

Periodical seismic safety evaluation for concrete buildings are necessary since they have been used for many years. Many approach can be used to evaluate them, one of them is pushover analysis. This analysis is performed by applying incremental loads then reading the displacement that happen, and comparing it to the response spectra demand to retrieve the performance point. One seismic performance evaluation that has been done on concrete frame is using endurance time approach (Bai et al. 2019). Moreover, time history records can be used to determine the displacement appear in structure. This study aims to perform 3D evaluation of reinforced concrete buildings. The building sample was selected from academic building in Yogyakarta, Indonesia which has 7 storeys. The analysis was performed using STERA 3D software. Three time-history records namely El Centro, Kobe, and Parkfield

earthquakes were used to determine the displacement. These records were matched with response spectrum for Yogyakarta based on Indonesian earthquake resistant building code. The result shows the performance level of the building and the displacement resulted from inputting time history, compared to the displacement limit. It is hoped that from this study, related stakeholders can take necessary actions if needed and can be the reference for future further studies.

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Suspended sediment distribution correspond to erosion and deposition processes at Bengawan Solo River, Indonesia

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Keywords: sediment; erosion; deposition; morphology; Bengawan Solo River

Bengawan Solo River is one of the longest natural channels in Indonesia which functioned as irrigation, fresh water supply and flood control. This river covers up to 1.6x10⁶ ha of area from the mountainous region in the Central of Java to the North Sea of Java with approximately 600 km of river reach length. Bengawan Solo River is an alluvial river indicated by Holocene formation along the river flow. Since alluvial soils were easy to transport, the river morphology changing becomes main problem. The river morphology changing causes local river channel alteration such as degradation, aggradation, river channel enlargement, and equilibrium of river profile. In this study, the suspended sediment concentration (SSC), flow discharge (Q) and flow velocity (u) were investigated as primary data through field work. The SSC provides the maximum and minimum value with 1496.868 mg/l and 294.308 mg/l respectively correspond to the climate succession in

Bengawan Solo River basin area. In general, the flow pattern is similar with previous data presented by (Hoekstra et al. 1988). The suspended sediment value shows the promising sediment equilibrium correlation with the river profile transformation tendency. Inequality between input and output sediment concentration in this study explains the mechanism of river channel alteration including deposition and erosion processes. Further, the correlation between flow regime which expressed by Reynold number (Re) and SSC was presented to evaluate river channel changes.

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Mapping for Road Network Performance in Urban Area Based ArcGis (Case Study of Urban Intersection on Yogyakarta)

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Keywords: ArcGis; intersection; mapping; road network; level of service

Yogyakarta is one of the cities in Indonesia that has an agglomeration area by connecting 3 districts (Yogyakarta city, Bantul and Sleman district) in the one ring-road. One of the biggest problems in the area is the intersection, particularly signalized intersections. Congestion that occurs on the road is also a serious problem besides having an impact on discomfort as well as congestion at the intersection (Wibisana and Utomo

2016). The purpose of this study is to create a database, identify and map the road network at each intersection that can be used as a transport policy for the government. The research method is using ArcGis program by collecting various data on the Yogyakarta urban intersections that have been studied using the 1997 Indonesian Highway Capacity Manual method on the analysis of signal intersections. Maps are also used in the

delivery of specific cities through ArcGis Online utilizing information that is on the system (Hamdani and Jamil 2017). To produce a GIS map, map of Yogyakarta Administration and Google Earth Image maps are used as the main source. From the 20 intersections studied, the results showed that urban intersections, the road network tended to experience a poor level of service intersection (LOS F) with the percentage in 97%. The percentage of queue lengths tends to be as high as 62%, and percentage

degree of saturation with a scope limit (LOS F) of 57%.

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Earned Value Management System In Indonesian Construction Project

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Keywords: Earned value management; construction; project management

Earned Value Management (EVM) is a methodology that combines scope, schedule, and resource measurements to assess project performance and progress, it involves the integration of the three key elements of the project which are scheduled, work scope, and cost. EVM as a recognized system that provides quantitative measures to project performance and integrates it with cost and schedule (Naderpour and Mofid 2011). Based on the references, various benefits have been found being associated with the use of EVM in a project management. The research aims to analyze four units of building construction project using earned value management method which consists of an analysis of project performance, estimation of cost and time for

project completion and analysis of planning estimation against project completion.

Based on the analysis uses earned value management in four building projects above, from the aspect of time: three buildings were completed ahead of the schedule and one building was completed behind of the schedule. At the same time, from the aspect of cost, three buildings cost lower than the budget and the actual cost of the other one is higher than the estimated budget.

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Analysis of Fuzzy TOPSIS Method in Determining Priority of Small Dams Construction

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Keywords:

The limited of government budget for the small dam's construction in Semarang Regency has led to the need for determining the construction priority. However, the large number of these construction's technical aspects causes the determination of construction priorities to be difficult. One of the best methods for multi-criteria decision making is the Technique for Order Performance by Similarity to Ideal Solution (TOPSIS). However, ranking and weighting the criteria that use in these constructions was difficult. It was due to human assessment factors that were less precise especially on linguistic variables criteria. Fuzzy logic plays a role to accommodate variables that are very complex and cannot be explained quantitatively or often called linguistic variable (Zadeh 1965). Therefore, a fuzzy logic was needed to numerating these criteria. There are eight alternatives of small dams and seven criteria of technical

aspects analyzed in this study. The first was determining membership function and weighting each criteria. Then, the modified TOPSIS method was applied to rank the eight alternatives. The highest priority was determined by finding alternative that has the largest closeness coefficient (CCi). Its represent alternative with closest distance to fuzzy positive ideal solution and farthest distance to fuzzy negative ideal solution. Based on the results of analysis, Mluweh Small Dams has the highest CCi value of 0,612. It could be conclude that Mluweh Small Dams is the highest construction priority of small dams in Semarang Regency.

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Queues and Delays at Unsignalized Intersection, Indonesian Experience

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Keywords: Delay; Queue; MKJI; Unsignalized Intersection; PCE

Delays and queues are used in analyzing the performance of unsignalized intersections. But in fact, the unsignalized intersection is the most frequent intersection of traffic problems (Salter, 1976) including high accident rates (Pawar and Patil, 2017), the number of pedestrians (Fitzpatrick et al. 2007), unmotorized vehicles (Xie et al. 2009) and aggressive driver behavior (Kaysi and Abbany, 2007). In Indonesia, intersection performance was analyzed using the Indonesian Highway Capacity Manual (MKJI) in 1997. The purpose of this study was to determine whether the MKJI method

was still suitable to be used in calculating delays and queues at unsignalized intersections, considering this manual had not been updated since 1997.

Traffic data originated from 8 cities in Indonesia, there were Cirebon, Yogyakarta, Tasikmalaya, Bandung, Makassar, Medan, Semarang and Sidoardjo. The performance of unsignalized intersections can be obtained from the traffic data at the intersections referring to the MKJI method. In addition, a comparison of predictive delays is made with actual delays in the field. The result shows the value of the predicted delay

is above the actual delay value. This is due to a significant increase in the composition of the number of motorbikes. Thus, it is necessary to revise the value of PCE (passenger car equivalent) for motorbikes which previously was 0.5 to 0.1. The final results show that after the PCE revision, the value of the predictive delay is close to the actual delay, so this PCE revision can be used in improving the MKJI method.

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Analysis of Special Housing Provisions' Success Factors

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Keywords: Special Housing Provisions; Success Factors; SEM

The government issued various national programs to assist low-income communities in order to obtain decent housing. The provision of housing for low income people to be accommodated by the General Directorate of Housing Provision one through special housing provisions' (Rusus) carried out by the Directorate of Special Housing. This study parallel examining around the influential factors by the SEM modeling to see empirically the effect of each factor to the successful of special housing provisions', because it can act as an evaluation for policy makers to monitor the implementation of the policy of future special housing provisions'. According to (Waluyo et al. 2016), SEM is a set of techniques-a statistical techniques that allows testing of a series of relationship that are relatively "complex" in phases/simultaneously. Based on the results of the evaluation of the structural model the most

accepted hypothesis is the cooperation among stakeholders factor influence on the number of special housing built. Key performance indicator of success providing specialized housing is a special number of houses built. Factor cooperation among stakeholders influence on the number of special housing built, it means that cooperation among stakeholders influence on the success of the provision of a special housing. Special housing programs really require commitment and active role of all stakeholders involved in providing special housing for the achievement of effective policy goals.

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Prediction Of Prioritization Sub-Watershed On The Serayu Bogowonto River Basin Using Deep Learning

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Keywords: Morphometry; Deep Learning; Watershed; and River Basin

Characteristics of the river basin formed by natural factors and non-natural factors that makes up an ecosystem. One of the characters that create the river basin of the physical element is morphometry that has three parameters such as linear aspect, relief aspect, and areal aspect. One method for explaining watershed priorities is by analysing the morphometric characteristics of the watershed based on various parameter values that are available from the calculation results. Watershed management is a process formulation in action involves modification of the natural system to achieve the objectives determined to achieve optimal results (Biswas et al. 1999). The results of calculating these parameters are then used as input data to make watershed priority predictions using deep learning. This study aims to analyze characteristics of the sub-watershed of Serayu Bogowonto river basin based on morphometry parameters using GIS and analysis for the watershed priority prediction using Deep Learning Method .

The data utilized in this study is the river network data published by Bakosurtanal, and Digital Elevation Model (DEM) 30x30 ASTER GDEM then data analysis is using Geographic Information System (GIS) technique with ARC GIS 10.1. The prioritization based on morphometry analysis that is seven sub-watershed with high priority, four sub-watershed with medium priority, six sub-watershed with low priority.

From the test results by measuring method using a deep learning based, it is known that deep learning algorithms yield accuracy values 80.00%, and class precision 74 %. The model is quite capable of producing satisfactory results and showed a good agreement between the predicted and observed data.

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BIM Based Risk Integration Model in Temporary Structure

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Keywords: construction industry; building; safety management; BIM

Construction activities are very complex and risky. The Health Safety Environment (HSE) report has shown that the construction industry has a greater hazard than other industries (Huang and Hinze 2006). Therefore, the number of accidents in the construction industry is

higher compared to other industries. On the other hand, the construction industry 4.0, forced construction technology to develop into the world of digitalization, especially Building Information Modeling (BIM). However, the relationship between safety management

and technology-based information models has not been widely developed. This study aims to propose a model that integrates construction risks and BIM. This research was carried out by identifying risky temporary structure, such as: the stability of scaffolding and formwork. In this model, data or information will be obtained through sensors and visual observations. Bayesian Belief Network (BBN) will be used to combine risk and to calculate the probability of a hazard. To validate the

proposed model, a building construction project in Surabaya was used as a case study. Beside integrating project risks and BIM, this model can also be used as an early warning system in construction projects.

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Analysis of Operation Pattern of The Bajulmati Reservoir

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Keywords: Reservoir; optimization; dynamic programming

The reservoir is a water resource facility that has a function as a storage and water provider. The abundant water in the rainy season is accommodated, stored and used appropriately throughout the year. The fact that is happening now as time goes by is that many reservoirs in Indonesia have decreased function and performance. One of them occurs in the Bajulmati Reservoir. This is because the planning of the reservoir is not in accordance with the current conditions. This study aims to analyze the Operating Pattern of Bajulmati Reservoir so that the reservoir is expected to provide optimal performance in

utilization for irrigation, raw water, and Micro Hydro Power Plants. This research was conducted by forming a model with Dynamic Programming and simulation. The first simulation was carried out according to the operation of the current reservoir, which is prioritized for irrigation (factor $kT = 100\%$), irrigation water is passed through a turbine (PLTMH). In the second, the reservoir was operated with the fulfillment of irrigation and raw water, a factor of $kT \geq 70\%$ and the PLTMH was optimized considering the availability of water.

Determination of Land Subsidence Caused by Land Use Changing in Palembang City using Remote Sensing Data

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Keywords: Remote sensing; Land subsidence; Land use changing; Flood

Palembang City is located at lowland where 70% of the city has an elevation from 0 to 5 m above mean sea level. With tremendous development and land use change, Palembang City has faced more problems with a flash flood and a larger inundated area. This paper presents a study on the subsidence on Palembang City using remote sensing data. Land subsidence occurred naturally as a result of an isostatic load from sediment and natural compaction of Holocene deposits or caused by tectonic and Volcanic activities (Estelle et al. 2013). The SAR data set ranged from within one year, two years and three years were used in this study. From the study, it is found that within three decades, the land subsidence

in Palembang City is a presence with an average velocity of 38 mm/year. The land subsidence causes the further problem of an inundated area worsens the existing runoff water discharge which controlled by the tide of Musi River. The predicted inundated area due to land subsidence is presented in this paper as well.

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Analysis of Flood Early Warning Time in the Jragung River

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Keywords: rainfall; flood; warning; time; detection; mitigation

The area of flood inundation in Demak Regency reaches ±13000 Ha, one caused by overflow of the Jragung River (BBWS, 2010). This flood causes direct losses (such as damaged and flooded rice fields) and indirect losses (such as obstructed traffic due to flooded/interrupted roads). Flood control can be done through 2 (two) methods, structural methods and non-structural methods (Kodoatie and Sugiyanto 2001). Structural flood mitigation efforts carried out on the Jragung River through the Jragung River Flood Control activities, which include river normalization activities (river channel improvement), cliff elevation, and

elevation of structural buildings that cross the river. However, non-structural control efforts need to maximize mitigation efforts, for example through a flood early warning system. The purpose of this study is to analysis the time of flood early warning on the Jragung River. This study uses hydrological modeling use Hydrologic Engineering Center - Hydrologic Modeling System (HEC-HM) software and hydraulic modeling use Hydrologic Engineering Center-River Analysis System (HEC-RAS) software. Simulation of this study uses rainfall with return period 2, 5, 10, 20, 25, 50, and 100 years. The results of this research indicate that Q10 flood

discharge causes flooding at cross section 17546 (rainfall depth is 87 mm with duration 5-hours) and Q50 flood discharge cause flooding at cross section 7164 (rainfall depth is 100 mm with duration 5-hour). At cross section 17546, maximum warning time is 59 minutes for 10-year rainfall design, 128 minutes for 25-year rainfall design, 160 minutes for 50-year rainfall design, and 157 minutes for 100-year rainfall design. At cross section

7164, maximum warning time is 76 minutes for 50-year rainfall design and 129 minutes for 100-year rainfall design.

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Model of Queuing in The Railway Level Crossing (Case Study: Imam Bonjol Railway Level Crossing in Blitar)

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Keywords: Railway level crossings; Railway; Highway; Vehicle Queue; Simple linear regression

A high number of accidents in railway level crossing causes loss of life and material. Railway level crossings create serious potential conflict points for collisions between road vehicles and trains. Safety at level crossings is a worldwide issue, which increasingly attracts the attention of relevant transport authorities, the rail industry and public (L. Tey et al. 2016). Furthermore, the losses are also experienced by users of traffic on the highway such as disturbance in the form of delay which can lead to increase the length of travel time where the vehicle will stop, and give impact to the emergency queue vehicle at railway level crossing. Considering those problems, there has been build two models which are: the queuing of traffic length and with considering the length and speed of the train, and queue length. The methodology applied was an observation on field and

survey data and then calculation from Road Capacity Guidelines of Indonesia (PKJI 2014) and queue length calculation using the queuing analysis method. Data have been collected and analyzed by making the model relationship with a simple linear regression method. The result showed that there is a positive relationship between the train lengths with the length of gate closing time. However, the train speed has a negative relationship. Moreover, the length of the train has a positive relationship with the length of the queue.

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The Strategy To Developing Semarang City Bicycle Lane Facilities

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Keywords: Travel Behavior; Cycling; Perception of Cycling; Cycling Facilities; Transportation Management

Indonesia has committed to making a development transition in a low-carbon in the future. Increased use of private vehicles that are not controlled will lead to congestion and fuel consumption contributes to greenhouse gas emissions. One alternative mode of transportation that is environmentally friendly in sustainable transportation is cycling. This study aims to identify the factors that encourage and discourage the choice of modes of transportation by cycling, rank the choice of cycling facilities according to society's preferences and develop a strategy for the development of bicycle facilities in Semarang City. The choice of cycling facilities used in this study based on several literature studies on transportation, Broaddus (2010). From the results of factor analysis, factors that discourage the choice of cycling are discomfort, environment & safety, and daily activity. While the

factors that encourage cycling choices is the pleasure factor. The assessment of cycling facilities was carried out by multiple attribute analysis with the highest rank results are bicycle lanes, bicycle parking, and signaling. One strategy for developing cycling facilities is in the form of bicycle lanes with continuous routes that are shady and connected to public transportation routes. These efforts are expected to reduce the factors that discourage the choice of cycling, and also for supporting tourism and the concept of Transit Oriented Development in Semarang City.

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The Watershed Physical Characteristics Which Affect The α Parameter On Nakayasu Synthetic Unit Hydrograph On Predicting The Flood Discharge On Java Island

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Keywords: Synthetic unit hydrograph; watershed physical characteristics; α parameter; Nakayasu synthetic unit hydrograph

Nakayasu synthetic unit hydrograph is one of the methods that is widely used in the analysis of design flood discharge in Indonesia. The Nakayasu synthetic unit hydrograph method requires relatively few data and the results still need to be tested in order to fit the reality. One of parameter that needs adjustment is the α parameter. α parameter is strongly influenced by the characteristics of the watershed, so the application of the Nakayasu synthetic unit hydrograph will give different

results on different watershed characteristics. Priyantoro and Limantara (2017) state that the α parameter is strongly influenced by the characteristics of the river and each watershed with a certain rainfall will produce a certain α value. From various studies of α parameters that have been done, the determination of parameters is only at a specific location and according to the location of the study. Therefore, a formulation is needed on how to determine the α parameter based on the characteristics

of the watershed. Before forming the formulation, it is necessary to determine any watershed characteristics that affect the value of the α parameter. In this study using 11 (eleven) watershed characteristics, namely watershed area (A), shape of watershed (E), slope of watershed (S), river length (L), drainage density (Dd), mean basin width (M), ratio elongation (Er), length area relation (Lar), the length of the river starts from the center of gravity of the watershed (T), the perimeter of the watershed (W) and the length of the watershed (I). Of the 11 watershed characteristics used, only about 8 watershed characteristics parameters have a correlation above ± 0.4 while the three parameters have a non-

significant correlation (slope of watershed, elongation ratio, and shape of watershed). The general form of function used in estimating the α parameter is the exponential function with the form of a general equation is

$$\alpha = aE^b S^c T^d I^e W^f A^g Lar^h Er^i M^j Dd^k L^l. \quad (1)$$

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GFRP as an Alternative to Steel for Sustainable Reinforced Concrete

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Keywords: Glass Fiber Reinforcement Polymer; Steel; Corrosion; Sustainability; Reinforced Concrete

The corrosion of internal reinforcing steel is the main cause of infrastructure deterioration among reinforced concrete structures world-wide (Sheikh SA, et. al., 2018) and can compromise the structural integrity and cost billions of dollars every year (Barker C, 2016). To reduce these impacts, finding the new, sustainable, eco-friendly, and cost-efficient construction materials has a significant impact in improving the sustainability of buildings and economic increase. To meet the above mentioned requirements, this literature review aims to examine the feasibility and sustainability of Glass Fiber Reinforcement Polymer (GFRP) bars as an alternative to steel in reinforced concrete. The method used is a Systematic Literature Review (SLR) of 29 relevant international journals from 2009 to 2019. The results show that GFRP-RC can be used as cost-effective solution to steel corrosion and sustainable alternative to steel due to the least amount of CO₂ production rather than other types of Fiber Reinforcement Polymer. But the strength and durability as a feasible option for RC structures still remain controversial. Recently,

significant improvement found in the prediction of deflection and stiffness of the beams. GFRP bars used as longitudinal reinforcement can resist compressive stresses in excess of 700 MPa and GFRP lateral reinforcement can confine concrete core more effectively than steel. Recommendations for future implementation include establishing building codes, improving recyclability and lowering initial costs

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Measuring The Urban Public Transport Performance By The Implementation of The Bus Priority Lane (Case Study: Trans Jogja, Indonesia)

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Keywords: bus priority; urban; public transport; performance

Public transportation in Yogyakarta City currently only has Trans Jogja Bus that replaces all city transportation that has existed since 2008. Trans Jogja buses operated are 129 units and serve 17 routes. The treatment of bus priority is a modification between the environment passed in the bus operation to increase speed, reduce delay, increase reliability or attractiveness for bus usage (Wu et al. 2016). In its development, the operation of the Trans Jogja Bus experienced obstacles, namely the number of sections and crossroads experiencing traffic congestion and the mix of various types of vehicles in one lane, this resulted in poor performance of Trans Jogja Buses in service timeliness, load factor, and impact on the value government subsidies for the operation of the Trans Jogja Bus. The widening of the road and the construction of new roads that function specifically as the Trans Jogja Busway are very difficult to implement in the city of Yogyakarta, due to the limited availability of land for road widening. This condition requires handling in terms of making a study

of the application of Trans Jogja Bus priority path. Based on the results of the study, the determination of the Bus Lane path was carried out by considering the road width of more than ($>$) 9 meter, if the road width less than ($<$) 9 meter, the assessment was carried out by looking at the V/C Ratio close to 1 and handling road widening. The application of Bus Lane in accommodating Trans Jogja Buses is done in two stages, namely; the first stage is by removing the median, eliminating on street parking, reducing the width of the sidewalk on the specified road segment. The Bus Lane application in the second stage was emphasized on the roads that have a one-way traffic flow and the implementation of the Contra Flow Bus Lane system.

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Priority Factors For The Sustainability Of Local Road Under Community-Based Management In Slum Areas At Pasuruan City

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Keywords: Infrastructure Management; Local Road; Sustainability Function; Priority Factor; Community-based Management

The Pasuruan City Government has carried out activities to improve the quality of local road infrastructure in slum areas through the NUSP program, to realize the Target City Without Slums in 2020. The

sustainability of this local road function is strongly influenced by the sustainability of infrastructure assets management stages, starting from the planning and construction, operation, and maintenance. The operation,

and maintenance conducted by the User and Keeper Groups (KPP). This study aims to determine the priority factors for the sustainability development of local road functions in slums with community-based management in Pasuruan City. Determination of priority factors is carried out by assessing the suitability of the sustainability factors through the assessment questionnaires to the KPP, while the priority factor for the development of sustainability with the method of Borda analysis is based on the expert's assessment. The results of this study indicate that in the operation stage, the factors needed to be prioritized are the physical condition of the infrastructure, the management quality,

and financial management ability. Kodoatie (2005) emphasizes that changes in the handling or management of roads are very important to strengthen the factors of community participation in them. Whereas in the maintenance stage, it is necessary to prioritize the management quality, transparency of financial management, and coordination with the government

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Evaluation of Airport Train Fare Based on Willingness to Pay of Users (Case Study Soekarno-Hatta International Airport)

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Keywords: Willingness to Pay; Fare; Airport Train

The presence of airport train provides an alternative for users to access Soekarno-Hatta International Airport in avoiding congestion on the road due to increased traffic volume. Since the first operating, there has been a rapid change in fare and a significant increasing thus effecting on the people's purchasing ability. This study aims to evaluate the airport train fare based on Willingness to Pay (WTP) of users. The elasticity value of the model is calculated with the measures of responsiveness of market shares to changes in each attribute. This is to find out the percentage changes in choosing to use the Airport Train (with do-something scenario) caused by a 1 percent change in the certain attribute. (Louviere et al. 2000; Ortuzar and Willumsen, 2011) Data collection is carried out by user interviews (stated preference) at the

station and on the train. Analysis of WTP uses Discrete Choice Model by comparing scenario improvement services (like shorter headway and travel time) and the existing services. The findings are the estimated value of WTP of IDR 83,969. When it compared to the existing fare, it is possible to increase the fare which is certainly by improving service performances.

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The Strength Comparison of the Square Column and the Round Column

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Keywords: square column

The work of square column is felt easier than the work of round column, on the implementation. The work is both on reinforcement assembly and when making formwork. However, the comparison of the strength of the two cross sections of the column still has to be proven. The column cross-sectional area and the reinforcement area are made equal to compare the strengths both in

terms of the nominal axial resistance nominal and the nominal moment resistance. The analysis was carried out in the short column and in the slender column, with reference to SNI 2847: 2013. Based on the results of the analysis it was found that the round column produces the nominal moment resistance greater than the square column with the same compressive force.

Strengthening of Reinforced Concrete Slabs using Cold Formed Steel

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Keywords: Channel shape; cold formed steel; flexural strength; strengthening

Low quality control in concrete work often causes a decrease in the quality of compressive strength. The effect of that, the function of the structure was not achieved as planned. There have been many studies aimed at increasing the strength of structures using CFRP, steel plates, external cables, etc. This paper presents the results of the behavior of concrete slabs with cold formed steel as strengthening. Rehman et al. (2018) studied the experimentally RCC Slab by using CFRP and GFRP as strengthening material. Three slab panels were casted i.e. conventional slab, strengthened slab by CFRP and strengthened slab by GFRP. All of the specimens were made with same dimensions and tested by one point load. The failure of the specimen installed with GFRP sheet has the highest flexural strength than specimen by CFRP and conventional slab. The maximum loads achieved are 192 kN, 252 kN and 249 kN respectively for conventional slabs, slabs by GFRP and slabs by CFRP. Furthermore, deflection that has occurred was 15.2 mm, 16.45 mm and 16.1 mm on the specimen in respectively.

Cold formed steel that easy to get, has a high tensile strength and low prices was the ideal option for strengthening materials, particularly in flexural structures. The specimen test that has been made was the normal concrete slab (NS) and concrete slab with additional channel shape cold formed steel (SS). The test results showed an increase in stiffness and peak load on the SS specimen. On the other hand, there was no significant difference load when the first crack on the SS or NS specimens. The crack pattern that occurs in NS and SS was not much different and was still a flexural crack categories, and this was suitable with the plan that the addition of cold formed steel area considering the slab structure will not shear failure.

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Preparing Material Composite from Plastics Waste, Sawdust and Bagasse

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Keywords: composite; plastics waste; sawdust; bagasse; mixing process

Composite is a mixture consisting of two or more constituent materials combined to produce a new material which has different characteristics from the individual materials. Composite materials made to produce a material with some properties that cannot be achieved by one of the constituents. This study focused on the utilization of wastes that were widely available in the environment that will make it more valuable as well as reduce the negative impact of waste deposit on the environment. The waste used was PE plastic, sawdust, and bagasse. The composite materials made by using simple technology that make it easily adapted. Using

plastic as a composite material can reduce the impact caused by plastic waste (Müller, 2016). The most proper method in mixing waste plastics, sawdust and bagasse to be homogeneous material is by mixing the three constituents in one size, which is equal to 40 mesh, then pressed the mixture at 180°C for one hour.

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Analysing Risk for Sustainable Construction Project: A Concept

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Keywords: Sustainable Construction Projects; Fuzzy Logic; Sustainable construction project formulas

The use of natural resources is widely used in construction operations, as well as in the operation of a building resulting from a construction project there is still a lot of energy that cannot be maximally utilized to reduce energy use so that sustainable concepts can be implemented properly. In implementing sustainable construction there are still many risks faced by contractors, clients, and regulations. Risk management is needed in managing risk on sustainable projects that can cause negative impacts on the environment in its development. so as not to have a wider impact, Apine (2016). Therefore, a risk analysis of sustainable construction projects is needed to reduce negative impacts and improve the implementation of sustainable construction in reducing energy use, so that sustainable construction can be implemented smoothly in Indonesia. In assessing the risks to a sustainable construction project there are still few research done, it requires risk

modeling that takes into account sustainable factors.

Identification of risk for sustainable construction projects is obtained from the literature review. While the assessment model is determined by considering 3 sustainable aspects (economic, social, environmental) approach to probability and impact. With regard to probability and impact, the ambiguity of human judgment is assessed, using fuzzy. The results of the concept found in the formula for assessing the risk of sustainable construction projects are $R_{sp} = (R_{ec} + R_{so} + R_{en}) / 3$.

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Study of Society Behavior to Early Warning in The Railway Level Crossing without Barrier in Gayung Kebonsari, Surabaya

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Keywords: Railway Level Crossing; Accident; Society Behavior; Regression; Binary logit

Railway level crossing safety is one of the most critical issues for railways. Collisions between trains and motorized vehicles contribute most to LX accidents. Population growth and the development of economic in Indonesia affect the increase in vehicle volume, especially in the city of Surabaya. According to the 2017 Surabaya City Central Bureau of Statistics, the average population growth of Surabaya is 2.136% per year. Furthermore, the increasing of vehicles volume, causing congestion at some points in Surabaya including Gayung Kebonsari railway level crossing. One of the congestion factors at the railway level crossings is the duration of closing time as the train passes through the crossing. The

uncertain duration of gate closing time cause road users to be undisciplined by break through the crossing gates while the train pass through the crossings. Considering of those problems, respondents' opinion is being evaluated to see the society behavior to early warning on reducing the number of traffic violation. A comprehensive discussion of the existing problems, lessons learned and the possible future implications that can be applied in Indonesia are presented.

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Applicability Of Biocementation On Permeability Of Organic Soil

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Keywords: permeability; peat soil; calcium carbonate precipitation; bio cementation

Nowadays, the use of bacterial calcium carbonate precipitation (bio cementation) has become popular as a ground improvement technique for sandy soil. However, this technique was not too much applied to organic or peat soil. Indonesia has a very large percentage of swamp and peat areas. About 30% of the land in Indonesia is swamp / peat areas. Peat soil has a very low carrying capacity of 57 kPa (Jelisc and Lappanen, 2002) and large and uneven compression so that many civil buildings are damaged by this behavior (Mohtar, NE. et al. 2014). On the island of Sumatra, the province with the largest peat land is Riau Province with an area of $\pm 4,04$ million ha or 56.1% of the total area of peat land in

Sumatra. Siak is one of the districts in Riau which has a fairly large area. Many problem occurs because of the peat during the construction of infrastructure in Siak. This study focused on bacterial calcium carbonate precipitation from ocean bacterial and its effect on permeability in organic soil. A special injection system was prepared for inducing bacterial solution to the samples. The bacterial solution supplied to the samples by gravity for 7 days in specific molds designed for this work. Calcite precipitation was observed by monitoring pH value and measuring amount of calcium carbonate. Change in the permeability was measured before and after bio cementation. Through this research, it is hoped

that it can improve engineering performance especially in reducing permeability aspect of organic or peat soil so this technique suitable and help reducing the problem in construction of infrastructure in Siak district.

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Numerical Analysis of Multi-Level Gravity Walls in Tupa Village, Bulango Utara-Bone Bolango Regency by Limit Equilibrium Methods

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Keywords: Limit Equilibrium Methods; Slope Stability; Safety Factors

The boundary equilibrium method is one of the methods used in numerical analysis in the geotechnical field. Slope stability is determined by the values of safety factors. This is obtained from various methods, discussing the usual method or Fellenius method, Bishop method, Bishop Simple method, Simple Janbu Method, Spencer Method, and General Limit Equilibrium method, GLE / Morgenstern-Price method. Pore water pressure, soil shear strength, and slope geometry are factors that can affect slope stability. The slope stability analysis was carried out on the slope by multi-level gravity walls. The research location was the natural slope in Tupa Village, Bulango Utara, Bone Bolango Regency. This area often experiences landslides, especially in some villages/sub-districts, such as in Tupa Village, Bulango Utara Sub-District (Patuti et al. 2017). The natural slope had collapsed (FS<1.0). After reinforcing the slope with a multi-level gravity walls, the slope was stable. The

safety against sliding, FS_s = 1.71 > 1.5, the safety against the overturning, FS_o = 3.23 > 2.0, the safety against of the bearing capacity failure, FS = 7.22 > 3.0, and the safety factor for global slope (using GLE/Morgenstern-Price method), FS = 1.64 > 1.5. The results of the study show how to increase slope stability increases with increasing shear strength. However, more pore pressure can cause a significant decrease in safety factors. In addition, increasing the load on the slope can also reduce the value of the safety factor.

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Multi-Hazards Mapping For Flooding And Subsidence In Cirebon-Semarang Railway Track Based On Geographic Information System (Gis)

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Keywords: GIS maps; hazard

The northern railway of Cirebon-Semarang route is vulnerable for natural hazards such as flooding and subsidence as it is located close to the coastal area and has complex geomorphological condition. This study aims to identify and map the potential of natural hazards that can affect the Cirebon-Semarang railway by using a Geographic Information System (GIS). The land mapping unit is obtained by interpreting each geomorphological element and physical characteristics, resulting in an area (unit) of the same characteristics based on landscape analysis approach (Sartohadi et al., 2014). The valuation method used the landscape analysis approach used to determine the disaster vulnerability level. To make the GIS maps, topographic maps and

geological maps of BAKORTANAL or BIG (Geospatial Information Agency) and the Geological Research and Development Center were used as the main sources. The results showed that the geomorphological conditions of the Cirebon-Semarang railway line predominantly had structural, marine and alluvial landforms which identified the high potential for flood and depression in the study area.

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Evaluation of Semarang Public Transportation Performance (Case Study: Trans Semarang Buses and C Route Transportation)

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Keywords:

Semarang City, one of the major cities in Indonesia, faces increasing urbanization and also an increase in private vehicle ownership that resulting in traffic congestion, increased accidents and also level of emission. The low use of public transport needs to be improved by moving private vehicle use to reduce the problem. Passenger comfort is an important index that can be used to measure the quality of public transport services and a crucial factor in residents' choice of traffic mode (Dell'Olio et al. 2011). Semarang has some public transportation, those are: Trans Semarang buses and C route transportation in the city. Public transportation performance can be determined from some indicators, such as: load factor, frequency, headway, and travel time.

Collecting data has been done by direct survey and interviewing public transport passengers to find out the preferences and origin-destination of public transport passengers. The purpose of this study is to evaluate the performance of Semarang public transportation and analyse potential zones to improve performance and use of public transportation. In addition, passenger origin-destination data can be used to analyse the integration of Semarang public transportation mode .

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Determining on Fresh And Hardener Properties of Self Compacting Concrete Due to The Use of Various Size And Percentages of Coarse Aggregate and Chemical Admixtures

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Keywords: Self-compacting concrete; admixtures

Self- compacting concrete was developed in Japan country in the latest 1980 (Ozawa et al. 1989). This method is a the newest innovation of concrete technology and became high performance of concrete. Self-compacting concrete (SCC) is a type of concrete which can spread grout of concrete into the mold or formwork without the need of vibrator. Assessing the properties of the grout of SCC is an important factor for the successful of SCC technology. The objective of this study was to evaluate the effectiveness of various coarse aggregate sizes and chemical admixtures in producing of SCC. There are three main factors to determine the capability of fresh grout of concrete as SCC namely filling ability, passing ability, and segregation resistance. For this purpose, two chemical admixtures that contain 0.5%, 1.0% and 1.5% by weight of cement also two various sizes and percentages coarse aggregates were

investigated. Cylindrical molds of 100x200mm were utilized to cast cylinder specimens. Workability of grout concrete was investigated with using Flow test and L shape test that based on EFNARC (2005) standard code for determining fresh concrete and compressive test of 3,14 and 28 days of hardened concrete. To achieve the objectives of the research, casting, and testing of various type of SCC mixture was carried out. The test results will be compared with different code values for determining the properties of fresh and hardened concrete of SCC.

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The Effect of Composition Sequence on a Filter toward Acidity Level in Greywater

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Keywords: Grey water, Grey water filter, Acidity level (PH)

The aim of this research was to identify the effect of grey water filter composition sequence toward water's Acidity Level (PH). This research includes the production of grey water filter tools and water's laboratory testing. Wastewater from bathroom sinks, showers, tubs, washing machines, and other household's wastewater are called grey water (Little et al. 2001). Waste water from households were used as water samples. Samples were tested twice using PH meter tool which includes water before and after filtration. The filter's materials consist of sand, gravel, palm fiber and charcoal with the thickness of each layer was 5 cm. The result were indicated that: (1) the different sequences of

grey water filter composition resulting different water's acidity level (PH), (2) The optimum composition which produce lowest PH level consist of gravel-sand-palm fiber-charcoal, sequentially. And the composition sequence which produce highest PH level consist of sand-charcoal-palm fiber-gravel .

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Social Sustainability Criteria for School Building in Surabaya

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Keywords: School building; Social Sustainability; Surabaya;

School building has an important role in education process of the young generation of the nation. Construction industry is very important element to improve the economy as well as has a significant impact on the surrounding community (Alkadiri et al. 2012). Like other big cities in Indonesia, Surabaya has quite large number of school buildings. A building usually has long project life cycle and consequently the concept of sustainable development it quite relevant to be used in this building to provide maximum benefit to the community. Social sustainability is one aspect of the sustainable development which is important as the other two components of sustainability, namely economic and environment aspects. The application of the social aspect in construction project is expected can deliver project benefit streams to the community, not only in a short-term, but also in the long-term, as this aspect is closely

related to the community interest. This paper is an initial stage of the research to determine the criteria of social sustainability for the school building in Surabaya. Following the variable identification from the literature, preliminary survey involving four experts were conducted to verify several variables that have been identified from literature to be used for the questionnaire survey. According to the experts' opinion, it was found that 17 variables were considered relevant to measure the social sustainability for school buildings in Surabaya.

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Development of Safety Performance Functions for National Rural Roads: A Conceptual Framework

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Keywords: Accidents; Empirical Bayes (EB); GLM; National Roads

Road safety is one of the most important things in carrying out transportation. One effort to improve road safety is to reduce the number of traffic accidents. Fatality risk among motorcyclists is about 30 times higher and serious injuries are about 8 times higher compared to other groups of drivers (Huang and Preston, 2004). By knowing the accident data at a location, transportation planners can conduct analysis so that they can provide recommendations for improvements, handling, and strategies for improving road safety.

However, the prediction model in Indonesia in some studies is more local purposes. Meanwhile, the prediction model used in various countries needs to be adapted to the conditions of Indonesia. This study aims to develop Safety Performance Functions (SPFs) for estimating the number of traffic accidents that can be used to predict the number of accidents on national rural road segments by looking at the characteristic of road condition in Indonesia with the Generalized Linear Model (GLM) approach and Empirical Bayes (EB). The

availability of data in the form of a web-based accident database from the National Police Corps and the time series data from 8 provinces in Indonesia allows this research to be carried out. The model developed is expected to function as an evaluation tool and decision-maker in its contribution to improving road safety in

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A Three-Dimensional Ratu Boko Slope Stability Analysis Due to Infrastructure Development

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Keywords: 3D slope stability; limit equilibrium; safety factor; dynamic load

The Ratu Boko site is the one of historical placed that has been used as a spot tourism in Yogyakarta. The location of the Ratu Boko Site which is has a steeply hills area and the additional loads of the Andrawina Plaza development can trigger a landslide. This objectives in this research to analyze the slope stability of Ratu Boko site in conditions before and after the development of Andrawina Plaza. Hardiyatmo (2012) explains the purpose of slope stability analysis is to determine the safety factor of the potential landslide. The analysis was carried out using the 3D numerical simulation with limit equilibrium method on static and dynamic conditions. Besides the safety factor, the analysis results provide to show the location and shape of potential slip surface. Under dynamic load, based on seismic hazard maps for

slope stability analysis is used PGA value of 0.30. The existing conditions of Ratu Boko slope had a safety factor which is about 1.983 and has decreased became 1.926 due to the development of the Andrawina Plaza based on Bishop method. Under dynamic conditions, SF is 1.395 for existing slope and has decreased became 1.327. Based on slope stability analysis under both static and dynamic condition show that infrastructure development at Ratu Boko Site still meet the minimum safety factor criteria required.

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Linear Analysis Displacement on Mid Rise Buildings due to Earthquake Loads based on New Seismic Hazard Map 2017

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Keywords: earthquake; displacement

Earthquake has been one of many disaster issues in Indonesia since many victims were affected. A lot of buildings, especially mid rise buildings type collapsed at the earthquake events because many of its designs were not considering big force that happened. In Indonesia, National Center for Earthquake Studies has published new seismic hazard map in 2017, however few studies have checked the building with the new hazard map. This research performed linear analysis of structural buildings. Research on structural performance has also been carried out by integrating urban simulations after earthquakes in residential buildings (Burton et al. 2018). Building with the same floor plan and typical structural dimensions was modelled as object of the research, assuming that the mid rise building type in Indonesia is

similar with the model. The earthquake loads given to the model were three different time histories which were matched by response spectrum retrieved from hazard map for 99 big cities in Indonesia. Displacements for each floor were compared to the limit stated in Building Earthquake Code 2012, which is 2 percent of its height. The study shows that displacement of same buildings located in some cities are exceed the limit. For further research, the improvement of buildings with additional affordable structural members can be developed.

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Structural Evaluation of Railway Warren Steel Truss Bridge with Span Length of 42 Meter According to SNI 2833:2016 and Earthquake Hazard Map 2017

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Keywords: reinforcement; displacement; earthquake hazard

Railway bridge with the warren type truss structure in the Sumatera region is an infrastructure has existed since the Dutch colonial era. Beside the seismic load, the moving load also became a factor that give the vibration or dynamic activity in the bridge (Ibrahim et al. 2016). Bridge is used as a mode transportation for natural resources of coal. The construction of railway bridge

must always be monitored and evaluated for the feasibility of the structure, especially for earthquake load. This is due to change the latest of earthquake hazard maps and regulations regarding earthquake load. The research used SNI 2833:2016 regulations, about bridge planning for earthquake load and 2017 earthquake hazard maps, by modelling the 42 meter warren type of

truss structure using SAP2000 V.21 software. The results of the research indicate that, the largest of mode shape value occurs UZ point with the 6 mode number of 0,82536 displacement unit and a period value of 0,075276 second. The largest of period (T) value occurs in 1 mode number of 0,37002 second. The maximum displacement occurs U3 point at the joint 25 of 36,437377 mm opposites the axis. The value of displacement in the direction of U3 is smaller than the value of allowed deflection of 52,5 mm. Then, at the stress control, there are 13 frames that have overstressed and the maximum stressed of frame occurs on the pressure frame, the IWF150.150.7.10 frame has the Pu

value of 22,462 tons with a nominal compressive capacity (Pn) of 12,612 tons. Based on the 3 riviews, it can be concluded that, the bridge structure requires structural reinforcement on cross girder 1 (IWF1100.400.16.28), 2(IWF1100.400.16.28) and 7(IWF1100.400.16.28) frames and on wind bracing 13 to 22 (IWF150.150.7.10) frames.

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The Use of Transport Modeling to Evaluate the Implementation of Pedestrianization in Malioboro Area, Yogyakarta

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Keywords: pedestrianization; transport modeling; JICA Strada

Malioboro Area is the city centre of Yogyakarta. It is very busy area. The rapid growth of the number of tourist visiting Malioboro gives impact to the increase of vehicle volume in Yogyakarta which leads into a more populated area, whereas the existing traffic in Malioboro and about is in a saturated condition which is shown through Degree of Saturation (DS) in Malioboro street of 1.26 with the average DS of surrounding road network of 0.52 by Wibowo (2017). There are many shops, public utilities and attractions in this area. Many visitors come to this area, especially during long weekends and holidays. It is planned to close and pedestrianize the Malioboro main street. Traffic surveys were carried out in Malioboro and surrounding areas. JICA Strada transport modeling software has been used to analyze the effects of pedestrianization in this area. There are some alternatives, i.e.: pedestrianization for the whole area of Malioboro or pedestrianization for only a part of Malioboro.

The research result shows that if scenario 1 is applied, the increase of traffic volume on the road network does

not give significant impact towards its performance and it still resembles the existing condition. Furthermore, if the scenario 2 is implemented, there would be severe traffic jam on Jl. Mataram with DS value > 3,5 on the weekdays and DS>2 on the weekends. Therefore, if the local government policy related to the Malioboro area arrangement is still implemented, the transportation management and transportation engineering must be improved, especially on Jl. Mataram

The OD matrix used should be in the form of traffic volume data of the road network node selected for the study. As a result, it enables the achievement of high correlation value between real volume and existing volume of the result modeling.

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Assessment of Storm Duration Variation and Climate Change in Determining of Critical Flood Inundation

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Keywords: Kuantan River basin; storm duration; climate change; critical flood inundation

General speaking, the 100 year ARI (Annual Recurrence Interval) with 24-hours duration storm generates the “critical” flood discharges and flood inundation depth all over the watershed. However, the true critical duration design storm may be something other than the 24-hours design flood event and perhaps there may be more than one critical duration storm that produces critical flood discharges and depth of flood inundation across the river basin. In order to get the accurate answer which storm duration will produce “critical” flood, design flood with storm duration variation of the 1-, 3-, 6-, 12-, 24- and 48-hours under the 100 year ARI have been applied to find out the critical storm duration for Kuantan River basin. This present study evaluated and demonstrated the effect of storm duration variation in generating a critical flood inundation. The results show that 12-h storm duration produced “critical” flood inundation over the Kuantan

River basin.

Sherman (1932) proposed unit hydrograph (UH) concept in a watershed which is describe as the direct run off created by a unit volume of rainfall. Thus, the UH can be used to transform rainfall hyetograph. The equivalent hydrograph is expressed as the convolution of the rainfall and unit hydrograph. Early investigation of flood based on this theory. This concept is unsuccessful to explicate the nonlinearity relation over a watershed. In addition, it does not explain the contribution of other hydrology parameters. A more detail hydrology process is given by hydrological transport model concept. The model concerns on various combinations of hydrological processes, depending on the use.

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Efficiency Assessment of Batik Industry Wastewater Treatment Plant in Center for Handicraft and Batik Indonesia

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Keywords: wastewater; batik; WWTP; efficiency

Batik as cultural heritage of Indonesia has gained growing interest from international customers as well as local ones. However the increasing production is also followed by negative impacts to environment in the form of wastewater. Most of batik industries dispose their wastewater directly into the environment without prior treatment. Therefore, it is necessary to build a wastewater treatment plant (WWTP) as a pilot project for the industries. Performance evaluation of WWTP is

required to assess the existing effluent quality and/or to meet higher treatment requirements, and to know about the treatment plant whether it is possible to handle higher hydraulic and organic loadings (Hegazy & A. Gawad, 2016). This paper is focused on efficiency evaluation of the wastewater treatment process for batik industry WWTP at Center for Handicraft and Batik which can serve as a model for small scales industries. Wastewater samples were taken from each treatment unit outlets.

Eleven parameters were analyzed from the samples: pH, temperature, biochemical oxygen demand (BOD), chemical oxygen demand (COD), total suspended solids (TSS), total dissolved solids (TDS), phenol, total chrome, total ammonia (NH₃-N), sulphides (S) and oil and grease. Treatment efficiency was calculated for all parameters and the effluent analysis results were compared with permissible maximum values as stated in Local Regulation of Special Region of Yogyakarta No. 7 of 2016 on Wastewater Discharged Standards. The results

indicate that each treatment process can reduce the concentration of the pollutants. The overall value final effluent was below the standard so the effluent can be discharged safely to the environment.

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Analysis of Caisson Bearing Capacity and Settlement of Abutment in Lemah Abang Bridge

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Keywords: Caisson foundation; Bearing Capacity; Plaxis 2D V.8.6

Selection of the type of foundation should be taken accurately because the strength of the foundation as a support for the upper structure greatly influences the strength of building. There are some aspects from foundation selecting and planning as support structures (Bowles, 1986). Wherefore, analysis of foundation carrying capacity and settlement are indispensable. This research aims to determine bearing capacity by applying various methods and the value of settlement that occurs due to loading from upper structures. This research utilizes method, such as Skempton Method, Cooke dan Whitaker Method, Meyerhoff Method, α Method, λ Method and β Method. It is also employs Finite Element Method, namely Software Plaxis 2D V.8.6 as calculation and modelling tools, final results of the analysis could be compared with empirical and nonempirical methods. The object of this research is Lemah Abang Bridge that located in Sleman Regency and Gunungkidul Regency frontier, Yogyakarta Province,

with Well Foundation or Caisson foundation as the lower structure. The results show that the bearing capacity (Q_u) meets the requirements, such as : Skempton Method is 1693,701 kN; Cooke and Whitaker Method 2695,063 kN; Meyerhoff Method is 2695,063 kN; α Method is 632,374 kN; λ Method is 1663,359 kN; β Method is 1579,751 kN and field data is 20570,876 kN. According to the results, minimum value of Q_u are obtained by using Meyerhoff Method and β Method. Furthermore, The value of settlement with empirical method is 2,5075 cm and the settlement with Software Plaxis 2D is 4,62 cm. Based on the results, further analysis are needed by using another empirical methods or other softwares, to get various results.

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The Modification of Vehicle Detection Program Based on Java by Using Gaussian Mixture Model (GMM) Method for Rural Street

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Keywords: Gaussian Mixture Model (GMM); Rural Street; Image Processing; Traffic Volume

Population growth in Indonesia is currently experiencing a high increase. Those things will affect the increase of transportation needs, so that might increase the traffic volume. According to Politon et al., (2017) the calculation of traffic volume is usually still using the manual method. The traffic volume on a road will vary depending on the daily, monthly and also annual volume in the composition of the vehicle. Traffic volume is also widely used in transportation planning. Traffic volume is needed in transportation planning. Nowadays, the manual method is usually used by field observers using a calculation tool called a counter to get traffic volumes. With the high of traffic volumes, manual traffic volume calculations are less effective. For this reason, in this study the researchers modified the program to create a vehicle detection program and classify vehicles according to MKJI 1997 on a Java-based off-street called U-COUNTER (Rural Area). The method that used in this

research is Gaussian Mixture Model (GMM) method that base in image processing. In this program will attack of video input in the morning with 6 m height and 7 m, as well as video input in the afternoon with 6m and 7m height. The calculation results on the program will compared with manual calculations to get the accuracy and percent error values. The highest accuracy results obtained in this program are 76.48% with an error value of 23.52% for video 6 m in the morning. For the lowest accuracy results found on the 7 m video in the afternoon with an accuracy of 43% with an error value of 57%, this caused by congested traffic during video capture.

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Modelling an Unconventional Intersection using Single-Point Urban Interchange with PTV.VISSIM

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Keywords: Intersection; SPUI; Unconventional; VISSIM

Kentungan Intersection is an intersection that always having a traffic jam at the peak hours. Traffic congestion at Kentungan Intersection is caused by highly vehicle volume exceeding the intersection capacity. The type of this intersection is flat intersection. Referring to the

results of the Lestari study (2016) entitled Performance Analysis of Signalized Intersections at the Kentungan Intersection, it was suggested to construct intersections not to the extent to overcome high congestion and delay. Thus, its need to evaluate from geometric view with the

ways of changing the type of the intersection to elevated intersection (interchange). Elevated intersection is consisting of conventional and unconventional. Elevated conventional intersection is commonly used in Indonesia like flyover or underpass. This study chooses one of the unconventional intersections called Single-Point Urban Interchange (SPUI). SPUI provides vehicle movement more and efficiently than others type. The purpose of this study is to get modelling result from three intersections condition. Method used in this study is modelling using program PTV.VISSIM 9. This study models a three condition; existing condition, Default SPUI Intersection, and Modification SPUI Intersection. Result of the modelling existing condition, level of service of the intersection is LOS F with the average vehicle delay is

104,79 second. On Default SPUI Intersection, level of service of the intersection is LOS D with the average vehicle delay is 32,54 second. On Modification SPUI Intersection, level of service of the intersection is LOS D with the average vehicle delay is 30,3 second. Result of this models are passing the calibration process from driving behavior aspect and vehicle volume validation and the best result is SPUI with size modification.

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Cause Of Delay And Waste Time Turbine Hall Pltu Semarang

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Keywords: Delay factor; Waste time factor; Construction Management Construction project

In a construction project development is almost always sure to always have problems that can cause delay and waste time. Both of the planning process, procurement even until the installation process will be faced with various technical and nontechnical problems that must be able to be minimized as well as possible by all sides of the construction project. Workers in construction projects such as Main contractors and SUB contractors are workers who often face problems directly in the construction project. Similarly, the Turbine Hall construction project at PLTU Tambak Lorok Block 3 Semarang was found in the project a few obstacles which became a factor of delay and waste time. This research was conducted to determine the factors of the cause of delays and waste time according to some elements of the workers ' main contractors and sub-contractors working on the project by the dissemination of the questionnaire. The results obtained from all two elements of the worker

are then analyzed using the descriptive analysis with SPSS for the cause of delays and analysis by Borda method to cause waste time factors. Construction projects and projects are generally still problematic with resource inefficiencies and waste of time in the process, waste is the definition of good waste in terms of material, time or resources Owned by a project. Non-value-added work will result in highly inefficient resources and cause waste activities, Trismi Ristyowati, et al. 2017. From the factors that cause delays and waste time gained from some elements of the worker, there will be a ranking analysis and known major factors.

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Analysis of Calculation of Rental Charges for Hall, Dormitory Room and Classroom Assets at Surabaya IV Region Construction Service Unit

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Keywords: Calculation of Rental Charges; Non-Tax State Revenues Building; operational and maintenance needs; Break Even Point (BEP)

The Surabaya IV Regional Construction Services Unit (BJKW IV) is an Organizational Unit under the Ministry of Public Works and Housing. One of the main tasks is the management of Non-Tax State Revenues. BJKW IV Surabaya has the assets of the Hall, Dormitory and Classrooms which can be used for internal activities and leased to private institutions related to construction services. However, the rental rates of the above building assets that are still used Government Regulation Number 38 of 2012 cannot meet operational and maintenance needs. This study aims to establish the latest rental rates that are able to meet operational and maintenance needs. In this paper, the analysis of rental rate determination uses the method of Break Even Point (BEP). According to Letricia, 1997 and according to Mulyadi, 1993 Break-even point is a business condition that does not earn profit and does not suffer loss. There are two kinds of ways to determine breakeven points, namely: the

equation point approach and the graphical approach. The results show that the tariff requirements to meet operational and maintenance requirements are as follows: Hall rental rates is Rp 2.524.514,00, Dormitory Rooms with AC rental rates is Rp 209.754,00, Dormitory Rooms with AC+TV rental rates is Rp 226.219,00, Dormitory Rooms with Fan rental rates is Rp 169.717,00, Large Classes rental rate is Rp 804.067,00 and the Small Class Room rental rate is Rp 539.917,00. Based on the results above, BJKW IV Surabaya needs to consider tariffs for commercialization to the private sector.

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A Design of Mechanically Stabilized Earth Wall With Geotextile Reinforcement Based On The Federal Highway Administration Standard

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Keywords: geotextile; Federal Highway Administration; Mechanically Stabilized Earth Wall; stability; deformation

Geotextile is one of geosynthetics constructed on an embankment functioning as its reinforcement to support tension force from the loading design, so the embankment will show less failure potential. Referring to the Federal Highway Administration standard, geotextiles designed under static and dynamic loading

on a 7.5 m tall earth wall at Pondok Hijau, Bandung. Pondok Hijau Residence was established by constructing an embankment as additional terrain. The embankment itself is categorized as an earth wall since its face batter is 90° (vertical wall), FHWA HI-95-038. The reinforced earth wall is further known as a Mechanically Stabilized

Earth Wall. The FHWA design calculation uses the simplified coherent gravity method while the final analysis is based on limit equilibrium and finite element methods. The FHWA calculation produces preliminary design as follows: a 6.5 m long geotextile with 200kN/m ultimate tensile strength is placed at every 30 cm at the first layer, 50 cm from the second to the seventh layer, and 30 cm from the eighth to the twenty first layer. As the result, the maximum horizontal deformations of geotextile due to static and dynamic loading are 2.94 cm and 4.6 cm respectively. The wall itself also deforms as much as 5.07 cm due to static loading and 7.93 cm due

to dynamic loading. For the record, the allowable deformation of geotextile and the wall are 27.3 cm and 10 cm respectively. Hence, the preliminary design is valid according to the deformation requirements.

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The Influence of Soil Parameter to the Retarding Basin Factor

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Keywords: soil type; soil texture; retarding basin factor; watershed

The retarding basin decay factor is controlled by retarding or storage factor. Nowadays, the empirical formula of retarding factor is built based on the watershed morphometric. The roles of rainfall and decay coefficient are as the important factors for controlling the threshold in predicting the flood. The bigger pore volume value of a soil type, so the potency of soil availability in infiltrating the rainfall and the soil availability to hold water is more increase (Indarto, 2010 and Sasmito et. al., 2015). In addition, the soil texture factor also influences the amount of water that can be bound on the some conditions of soil moisture content. Generally, the analyses are carried out on the soil type parameter, watershed morphometric, and the serial of rainfall data that causes the flood events. The modification is carried out on the determination of decay

factor. It is determined based on the retarding basin factor as the new variable by considering the influence of soil as well as the watershed morphometric factor that is more common. However, this study intends to investigate the influence of soil parameter to the retarding factor. The result is hoped that retarding basin factor is influenced by the soil texture, effective porosity of soil, and soil conductivity hydraulic that are as the input for building retarding basin decay factor.

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Is Random Regret Minimization More Suitable in Predicting Mode Choice Decision for Indonesian Context than Random Utility Maximization?

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Keywords: travel mode choice; multinomial logit model; stated preference survey; elasticit;, the value of travel time saving

Regarding the choice between public transport and motorcycle mode in Indonesia, we assume that the RUM based discrete choice model might not be appropriate. This is due to many travellers prefer to use motorcycle mode to avoid the intolerable service of public transport (PT). It is evident that even though the Indonesian government has reformed the public transport service in some cities in Indonesia, private vehicle users especially motorcyclists still reluctant to shift to public transport mode, Ilahi et al., 2015. Since often encountered the missing prediction of travel mode choice by using the concept of random utility maximization (RUM) for Indonesian context, this study proposed a theory of random regret minimization (RRM) aiming to more precisely predict the chosen travel mode and to increase the model fit. Three variances of RRM were implemented in this study: Classical RRM, μ RRM, and PRRM. Meanwhile, Yogyakarta and Palembang were chosen as a case of the study by involving 708 respondents in both cities. A stated preference survey

was carried out by offering six scenarios to the respondents. We implement the value of final log-likelihood, rho-square, Akaike and Bayesian Information Criterion, and hit rate to compare the model fit. We also calculate the value of travel time saving, and the elasticity of travel time and travel cost. The result shows that by excluding the rho square, RRM outperforms RUM in both cities. The μ RRM produces the best model fit in a case of travel mode choice in Yogyakarta, while there is a tendency that PRRM produces a better model fit than μ RRM in Palembang. We also found that RRM tends to generate a higher VTSS, travel time and cost elasticity than RUM. Travellers in both cities also tend to be more sensitive to change in travel time than travel cost.

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Validation of Linear Method in Cascade Reservoir System for Prediction of Energy Production to optimize Supply and Demand (A Case Study in Saguling Reservoir, Cirata, Jatiluhur, Indonesia)

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Keywords: Optimization; Multi-reservoir Operation; Purpose Function; Prediction

In Citarum River, West Java, Indonesia, there are three serial reservoirs successively spreading out from upstream to downstream, namely Saguling Reservoir with the volume of 875 million m³ and electrical energy production of 700 MW, Cirata Reservoir with the volume of 2,156 million m³ and electrical energy production of 500 MW, and Jatiluhur Reservoir, the most downstream, with the volume of 2,451 million m³ and electrical energy production of 150 MW. Jatiluhur Reservoir also provides supply for irrigation of 260,000 ha areas and drinking water industry with average inflow of 100m³/s. Gunawan. 2016. "Related to operation optimization of reservoirs in a Journal entitled ; Evaluation of the pattern of multi reservoir operation as an effort to add value to the serially lokated reservoir "as follow : linear and simulation program are used to determine the optimal benefits for both reservoir. The improper pattern of serial Reservoir operation has an adverse effect on of the Reservoir , if it exceeds the ressistance of the reservoir it wil collapse. A surface water reservoir serves multiple purposes such as irrigation, hydropower generation, industrial and domestic water supply, flood control, navigation, recreation, etc. Among these purposes, irrigation is most significant in India since irrigated agri- culture is the largest consumer of water. Therefore, optimal alloca- tion of available water for irrigation is becoming a key issue for sustainable agricultural development, Arunkumar. 2017. Those reservoirs have highly fluctuated with maximum water level 5 m per month. Operating reservoir involves various capacities of storage that are divided into some

parts based on the function having planned in reservoir operation. This condition occurs as sharing-non-sharing system is applied. Although this fluctuation is still in a normal condition, it affects the stability of reservoir slope. This study discusses about the validation of linear method to reach an optimal value of reservoir production in terms of electrical energy. The primary reservoir inflow data used was from 1988-2000, while the demand data was taken from 1992-2000, Cascade reservoir technique data was based on the existing data in 2000, Stochastic analysis was used to determine the inflow of 2000-2005 generation, while demand analysis was carried out using regression analysis. Multi-reservoir optimization analysis is carried out with linear simulation programs to obtain energy or fulfillment of demand every month, while demand for irrigation in the Jatiluhur reservoir is needed as a top priority supported by Saguling, Cirata and Jatiluhur reservoirs as the next priority. The result of optimizing cascade reservoir from 2001-2005, with initial period of operation on April obtained an average electrical production of 4,996.5 GWh, shows that the realization of average electrical production is 4,141.96 GWh. Besides, the average of demand is 4,996.8 MCm while the average supply is 5,806.2 MCm.

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Effectiveness of Subsidized Housing Programs for Low-Income Households (Case Study of Graha Raya I and Bancar Cluster III Housing)

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Keywords: Subsidized Housing Program; Low-Income Households; Effectiveness; Home Occupancy

Home is a basic human need. The subsidized housing program aims to facilitate low-income households to buy and occupy decent homes through subsidized housing

mortgage. Since 2010, the Government has channeled more than 32 trillion rupiah to finance 846,406 housing units. The problem that occurs is that many houses have

not been inhabited, housing facilities are inadequate, the location of housing is not connected with urban infrastructure. This study aims to assess the effectiveness of subsidized housing programs through home occupancy indicators. The effectiveness of home occupancy ratio is obtained by summing the total (real) score obtained divided by the number of ideal scores (expectations) after that multiplied by 100%, Sugiyono. 2013. Collecting data through housing observation and distributing questionnaires to 52 residents in graha raya I and 17 residents in bancar cluster III housing to obtain information on how long the house occupancy period is after the signing of the subsidized housing mortgage

contract and the factors that influence it. The results of the answer period of home occupancy are given a score of 1 to 5 from the slowest to the fastest. Data collected from questionnaires were analyzed using descriptive analysis. From the results of the analysis, the value of the effectiveness ratio of home occupancy is 61.16%, meaning that the subsidized housing program runs quite effectively.

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The Use of Nonparametric Statistical Inference for Studying the Effects of Construction Waste

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Keywords:

Minimizing construction waste can help achieve the environmental, economic, and social benefits of sustainable construction. Types of waste may include those known as non-value adding activities. Studies on the effects of construction waste on project performance are important to enable mitigation actions.

By construction waste it means construction activities that consume resources and produce no values. They include the following seven activities: overproduction, waiting, transport, extra processing, inventory, motion, and defects, Diekman et al. 2004. Most of such studies, however, are based on perception surveys. This has led to problems in deriving valid information using parametric methods during the statistical analysis of the response. These problems are mainly related to the assumptions concerning the underlying distribution and the categorical nature of the data. This paper explores a

class of nonparametric methods for analyzing survey data concerning the effects of construction waste on project performance. It includes a number of nonparametric tests for repeated measures and post-hoc procedures. Data concerning seven types of construction waste on the generation of material waste from past study are used for this purpose. The results show that consistent outcomes and inferences can be made among different nonparametric methods. A recommendation on which tests and procedures to use is given.

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Analysis of Geunang Uyat reservoir capacity as an attempt to overcome drought during the dry season

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Keywords: Reservoir; Storage Capacity; Irrigation; Rippl Curve

The reservoir is one of the storage areas that serves as a water reservoir when there is too much water and can be used during the dry season. Designing a reservoir on plantation land requires evapotranspiration data. Evapotranspiration is the condition for the loss of water from agricultural land due to evaporation and transpiration. The need for plant water is also the basis for knowing how much water there is in the proposed reservoir and what land area can be used for the agriculture and raw water needs of the surrounding community, Yulianur, 2005. The collected water is typically used for downstream requirements such as irrigation water and clean water and can even be used to store energy for power generation. The storage capacity of the reservoir can be divided into two categories, namely the life storage, namely the amount of water that can be used to irrigate the water, raw water, water or other water needs and disposal, namely the storage volume used to contain sediment becomes, Mudjiatko, 2015. Geunang Uyat Reservoir is located in the Pantou Reu District, west of Aceh. Built to overcome the lack of clean water is one of the most urgent for the need for irrigation water. It is expected that the construction of the reservoir will meet the irrigation requirements that can

irrigate around 500 hectares in the village of Meutulang. The method used is the curvature curve to calculate the appropriate storage capacity for a given water demand. The need for irrigation water on agricultural land, planned by the construction of reservoirs, is expected to maximize agricultural production in the region, which is only rice paddy fields. The data used in this study are secondary data from relevant agencies, e.g. Precipitation data obtained from BMKG Cut Nyak dhien, Nagan Raya Regency. From the results of the data analysis, there are several results, namely the analysis of the maximum precipitation amount in November 2006 of 538 mm and the lowest in 2010 in July was 41 mm, from the analysis of the main discharge sampling were obtained 0.032 ml. Based on the analysis, the cumulative value of the inflow was 2,682,868 m³ and the cumulative outflow of 1,575,443 m³ was achieved with a storage volume in the Geunang-Uyat Reservoir of 70.70845 m³.

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Comparison of Flexural Strength of Reinforced Concrete Beams by Different Design Codes

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Keywords: design building codes; beams; flexural strength; stress block; compression strain

Design building codes are primary book for structural design engineers to calculate flexural strength. In the design building codes, concrete has an important parts, those are rectangular stress block model and compression strain. This paper evaluates flexural strength of the reinforced concrete beam using six different design approach like ACI 318-14, AS3600-2009, CAN-A23.3-04, fib Model Code 2010, JSCE 2010 and NZS 3101:2006. 34 test reinforced concrete beam specimens in this database were tested under four-point

monotonic loading, compressive strength of the concrete is in the range of 18 - 55 MPa and shear span-to-depth ratio is in the range 3 - 5. Based on limited database, the rectangular stress block and compressive strain proposed by fib Model Code 2010 resulted in a mean ratio of the predicted to measured flexural strengths close to 1.0 with a small coefficient of variation. In other hand, the model proposed by CAN-A23.3-04 provides the most conservative estimation.

Model of Relationships Construction Waste to Cost and Time in The Infrastructure Project

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Keywords: Construction; Waste; Management; Time; Cost; Infrastructure

The Indonesian construction industry is characterized by challenges such as low productivity, lack of skilled labor, time and cost overruns and quality construction management. These are associated with considerable waste present in the construction sites. An important step towards elimination of waste, is to measure the amount of waste actually present in Indonesian construction sites. Construction wastes have become a pressing issue in many developing countries and have adverse effects on environment, economy and social aspects, Nagapan. 2012. Construction industry has been developing rapidly around the world. One of problems in construction management is construction waste. It has major impact on cost, time and quality of construction management. Many of the problems, or research issues, in construction engineering and management involve the measurement of concepts that are not easily quantified.

Project scope definition, management capability, project complexity, and past contractor performance are concepts that previous research has proven to be critical to construction project success but difficult for researchers to measure, Mudalige. 2012. The aim of the study is to examine the model of relationship between construction waste to cost and time that impacts quality of management project. The variable of construction waste was identified from interviews and site observation. The Variable of cost and time founded from Supply Chain Operations Reference (SCOR) Model approach. A survey was carried out through a structured questionnaire. The respondents are being experienced people in construction and management of building projects. In this earlier study, questionnaires were completed by 383 respondents. Data was analyzed with Structural Equation Model (SEM) with the aid of

Analysis of Moment Structures (AMOS) statistical package. The results shown that the cause factor of construction waste has correlation by cost and time with path coefficient value of 0.54. Correlation of cost and time with path coefficient value of 0.51, significantly $\alpha = 0.05$. It has indirectly an impact on quality of construction management system. The finding will help construction practitioners to reduce construction waste and gives better understanding to improve construction management sustainability.

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The Effect of Green Design on Project Success: a Framework

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Keywords: developer; green design; market success; product success

As the second largest city in Indonesia, Surabaya has quite big number of apartment building which is increasing from year to year. As the other construction project, apartment project can be considered as successful if is completed on time according to the time, cost and quality. In this study, the success of success is seen from the perspective of developers. From a developer perspective, development projects can only be considered successful when they are able to integrate 5 dimensions of success: the success of the company; profitability success; main product success; secondary product success and branding success, Wai et al. 2012. However, it is not sufficient for the property developer only think a success from a short term, but also in the long-term that is related to product and market success.

With regard to that, a green design potentially affects the success of the project in the long-term. This paper is an initial step of the research to develop a conceptual framework to investigate relationship between green design and the success components design from the developers' perspective in Surabaya. This research can help stakeholders understand whether a green design positively affects the success of the apartment projects in the long-term.

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Potential of Soil Water Infiltration Area using Fuzzy Set Method and Analytic Hierarchy Process

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Keywords: Analytic hierarchy process; Fuzzy; Water

Water catchment area has function to accommodate the discharge of rain water infiltration in the area. Water catchment area is an area where the rainwater percolates into the ground which then becomes a ground water, M. Wibowo. 2006. The catchment area can performs as a controller of floods and drought in rainy and dry season, respectively. However, now a day many areas in the catchment have been transformed into settlements and business area that caused reduction in the water catchment area. Suitability of water catchment areas can be identified by several criteria, include: land use area, slope area, rainfall intensity and soil type. In this study Magelang city of Central Java, Indonesia was used as study area. Magelang is a city which is located in a fertile agricultural area and one of the most densely populated

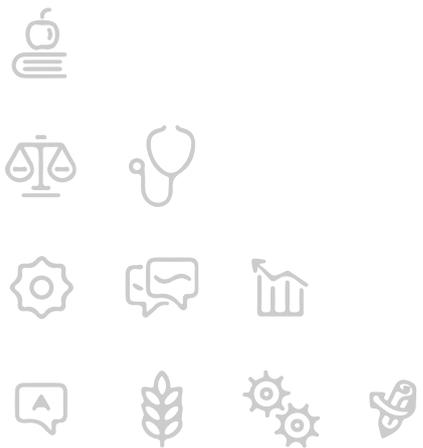
regions on Central Java. A fuzzy set assessment has been used to determine 9 (nine) catchment area in the city, while the weighted of each criterion was analyzed using Analytic Hierarchy Process method. Potential of land suitability water store area is classified into four types, include very suitable, suitable, sufficient, and unsuitable areas. The results showed that two areas in the city catchment are categorized very suitable and suitable, while the seven other areas are considered sufficient and unsuitable area.

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ASIAN Conference Comparative Law



Village Sovereignty in Settling Conflict after Law No. 6 of 2014 Concerning Village

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Keywords: Village Sovereignty, Settling Conflict, Mediation, Village Law

This research was conducted using a descriptive-qualitative method, it's one of the efforts to rediscover conceptual village sovereignty, which had faded and tended to disappear after the Republic of Indonesia era. History proves that since the royalty era until the colonial era the village was authorized to solve the problems of its people independently. Yet, entering the Republic of Indonesia era this authority was gradually amputated. Government began to realize the importance of being a village as an autonomous and self-sufficient area as before through Law No. 6 of 2014 concerning Villages. Through these regulations the village head has the authority and obligation to resolve society problems, his position becomes an Authoritative Mediator (Wantu, 2013). Through this basis, the village head can actually form an alternative settling conflict institution that has

the authority to call, examine, mediate and resolve problems from the parties. Here later the alternative settling conflict can be done by a mediation model and the position of the village head can be as an authoritative mediator. Henceforth, as a suggestion, it needs support from the government to prepare implementing regulations and also provide mediation training to the village heads and village officials who get delegations from the village head.

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BANKRUPTCY APPLICATION: A COMPARATIVE STUDY OF INDONESIAN AND THAILAND BANKRUPTCY LAW

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Keywords: comparative law, bankruptcy application, insolvency, Indonesia bankruptcy law, Thailand bankruptcy law.

The drafting and amending process of Indonesian bankruptcy law which was carried out in response to a crisis resulted in the resulting legal politics in favor of the interests of creditors so it caused controversy. Comparison with Thailand's bankruptcy law is interesting because it has a legal system and bankruptcy construction that is not much different (Keay, 2000). This micro comparison study uses a legislative approach and a conceptual approach to review the criteria and requirements for bankruptcy applications. The study found that the fundamental differences in the criteria and requirements for bankruptcy applications between Indonesian and Thailand bankruptcy laws lay in

insolvency criteria, minimum debt requirements, discharges, and the absence of specific mechanisms for certain debtors. Except for the minimum debt requirement, the criteria for bankruptcy application in Thailand law are more in line with the basic concept of bankruptcy institutions so that they are expected to be able to maximize their functions in protecting the interests of the parties equally. Insolvency criteria and discharge to honest debtors should be adopted in Indonesian bankruptcy law so that improving the construction of bankruptcy institutions in Indonesia becomes more ideal. Abuse of bankruptcy institutions can be avoided because only insolvent debtors can be

bankrupt so that there is no need for a special mechanism to protect certain debtors.

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THE LAW ENFORCEMENTS ON ENVIRONMENTAL POLLUTION IN WASTE MANAGEMENT IN SPECIAL REGION OF YOGYAKARTA

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Keywords: Law enforcement, waste management, pollution and / environmental damage

The waste generated from households always increases every day, appearing to uncontrolled volume of waste. According to Law Number 18 of 2008 concerning waste management "Every person is prohibited from garbage disposing not at the designated place". However, researcher found that many people are still littering without take an action. This research aims to know the implementation of law enforcement on pollution and/or environmental damage in waste management and the suitable concept on law enforcement against pollution in waste management in the future (Dewi, 2018). This research is a socio-legal research based on primary and secondary data. The data were analyzed using flow model of analysis. The results

of research show that the Special Region of Yogyakarta local government has regulated waste management, which has been implemented at the district and city level. Thus, the lack of socialization causes people littering. The ideal sanction will be based on restorative justice concept. The perpetrators and victims face each other and a third party as a facilitator; it is expected for decreasing the littering.

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THE PROTECTION OF MARINE ECOSYSTEM FROM CIGARETTE BUTTS POLLUTION UNDER INDONESIAN LAW

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Keywords: Cigarette butt, legal protection, marine pollution, toxic and hazardous waste

Indonesia is recognized as a country with high potential in maritime resources. However, Indonesia is also known as the second largest contributor of plastic

waste into the ocean. It is estimated that Indonesia contributes around 200.000 tons of plastic disposals. The highest pollutant of the plastic product was found to be

cigarette butts. The trillions of cigarette butts generate chemical contamination on the water. Chemicals that leach from the cigarette butts can be extremely toxic to the organisms in the ocean (Carlozo, 2008). The marine pollution caused by the cigarette butts was never realized by humans, even though the huge number of cigarette butts were found in the sea. A grave concern should be put on the impacts of the cigarette toward the ocean. The objective of this paper is to elaborate on the Indonesian law dealing with the issue of cigarette butt pollution in the ocean. This paper is the result of normative research with the statute, analytical and case approaches on the protection of the marine ecosystem from the cigarette filter disposal. This research attempts to analyze the

existing laws and regulations in Indonesia on the protection of the marine ecosystem from toxic and hazardous waste, especially from cigarette butt waste disposal. The results of this study show that to date there is no specific regulation regulates about tobacco waste product disposals. Accordingly, the government is suggested to enact a specific and effective regulation about tobacco waste product, so that marine pollution caused by cigarette butts can be prevented.

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The Challenges of Islamic P2P Lending as ADR in Indonesia

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Keywords: Sharia Fintech, Peer-to-Peer Lending, Alternative Solutions, Indonesia

The main attention of the authors to this research are the challenges of Sharia Financial Technology (syaria fintech), especially the online loan service industry (Peer-to-Peer (P2P) lending fintech service (P2P Lending) to the financial regulations and the alternative solutions to solve the problem (Luqman, 2016). The type of research method is normative and empirical research. This research used the statutory approach and conceptual approach which are obtained from library research and interview results. The challenges, in conventional P2P Lending system, there is economic immorality in their applications such as maisyir, gharar, riba, dhalim acts and haram. It is completely different from sharia fintech which has sharia compliance as the main principles. The challenges of Islamic P2P Lending are illegal fintech,

intimidating debt collection the high level of the interest rate, and illegal personal data usage. Therefore, the elements of sharia compliance principles and the obedience principle are the alternative solutions in order to reinforce sharia fintech which will provide protection to the consumers. Furthermore, these principles are recommendations for the government in order to immediately complete satisfactory financial regulation and to develop competent and capable human resources in sharia or in Islamic Economics Law.

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REDESIGN OF INDONESIA'S DECENTRALIZATION POLICY TOWARDS SPECIAL AUTONOMY MODEL

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Keywords: Symmetrical decentralization, Asymmetric decentralization (special autonomy).

This research examines, (1) the polemic of Indonesia's current decentralization policy, between symmetrical decentralization versus asymmetric decentralization (special autonomy) and (2) offering "special autonomy", as an ideal concept for the future of Indonesia's decentralization policy for a better local government. The research shows that the implementation of the decentralization policy that currently, still creates problems between the implementation of the decentralization policy that currently, still creates problems between the symmetrical decentralization (local autonomy) and asymmetric decentralization (special autonomy) model in Aceh, Papua, Yogyakarta and Jakarta. There is no *Lex Specialis* that provides an equitable legal umbrella for all regions to demand "special autonomy" status as constitutional

rights such as those granted to Aceh or Papua. Even though it is still considered a "trial an error", the choice of Special Autonomy is the most rational choice for a very broad and very heterogeneous country of Indonesia" (Jaweng, 2011). Ideally, special autonomy policies in the future are no longer based on sporadic demands or political transaction, but are designs that are comprehensively and systematically prepared by considering all aspects, especially human resources, natural resources, local wisdom, and the prevailing customary government system.

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OPEN LEGAL POLICY IN THE CONSTITUTIONAL COURT DECISIONS AND NATIONAL LEGISLATION MAKING

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Keywords: open legal policy, the Constitutional Court decisions, national legislation system

The Constitutional Court's Decision No. 46/PUU/XIV/2016 which rejected the petition of petitioners to broaden the meaning of zina (fornication) in the Criminal Code of Indonesia has been becoming an interesting issue to be discussed. Some argue that the Constitutional Court must use its authority to conduct a break-through in responding the crucial legal issue (Philip, 1999). On the other hand, the Court asserted that widening the meaning of zina in the Criminal Code of Indonesia is not its authority. The research aims at discussing further the ratio decidendi of the Decision of the Constitutional Court which contains the element of

open legal policy and its implication to national legislation system. The research is a normative legal research which uses statute approach and case law approach. The result of research shows that firstly, the concept of open legal policy in the Constitutional Court's decisions does not have a clear limitation which implies uncertainty of its implementation in the Court's decisions and the national legislation system. Secondly, the Decision of the Constitutional Court with open legal policy also shows that on one hand, there is a trend of using judicial activism among the constitutional judges and on the other hand, some constitutional judges also

use judicial restraint approach as their reasons which results uncertainty of law in Court's decision. The research recommends that there should be a further study on design model of open legal policy in the Constitutional Court decisions and its implication to national legislation system.

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THE CONSTITUTIONAL COURT INTERPRETATION OF "INDIGENOUS BELIEF": AN ISLAMIC AND 1945 CONSTITUTION PERSPECTIVES

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Keywords: Religion, Indigenous belief, Constitutional Court Decision, Islamic Sharia, 1945 Constitution.

This study aims to examine the Constitutional Court Decision Number 97/PUU-XIV/2016. The Decision states that the provisions of Law No. 23 of 2006 Article 61 paragraph (1) and paragraph (2) and Article 64 paragraph (1) and paragraph (5) that are related to clearing off the religion column in the family card and electronic identity card is against the Constitution. For this purpose, this study was designed to be qualitative and uses normative legal research methods. This study found that the Constitutional Court Decision was not in line with the Islamic Sharia and 1945 Constitution because it had an impact on the recognition of indigenous beliefs and their followers so that they had the same position as religions and their followers in Indonesia. This condition harms society (Nurcahyo,

2009). According to the Islamic principle of *sadd ad-dzarai'*, something which is allowed must be closed or stopped if it leads to something that is prohibited. In terms of the 1945 Constitution, more appropriate constitutional norms to refer to are the provisions of Article 28E paragraph (1) and paragraph (2) of the 1945 Constitution, where religions and indigenous beliefs are arranged as two separate and distinct things.

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Simultaneous Election in Indonesia: The Problems and the Future Agenda

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Keywords: Simultaneous Election, Management of Election, Political Party's Coalition Design, Political Maturity.

In April 2019, Indonesia held a new model of election, which is simultaneous election. The simultaneous election is expected to resolve the problem of inefficiency of the previous separated election. However, the implementation of the simultaneous election seems not easy. The research aims to evaluate the working of the simultaneous election 2019 and recommend future agenda of the simultaneous election in Indonesia, whether it is still needed or not. This was a normative legal research which used constitutional, statute and case approach. The result of research showed that there were several problems of the simultaneous election. First, structuring the national elections simultaneously seems not easy. Second, there is no stable political party's coalition design which may produce a more qualified election (Richard, 1980). Third, in practice, due to the lack of maturity, the simultaneous election has produced

more social and political conflicts in society. For the future agenda, the research recommends that first, it is necessary to have a better management of election in the future. The weakness and the strengths of the simultaneous election presented in the research is advisable to be taken as an evaluation variable for further assessment. Second, a better model of political party's design of coalition to produce a better quality of elections is needed. Third, there should be a massive political education to promote a better political climate of democracy in the future.

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LEGAL ISSUES ABOUT CASH WAQF IN CENTRAL JAVA INDONESIA

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Keywords: Legal Problems, Cash Waqf Practice, Central Java.

The implementation of waqf cash that is not in accordance with the laws and regulations, raises legal problems in the community. The study will analyze the problem of chash waqf law and its juridical solution's. This research in Central Java, by taking research samples from Boyolali, Salatiga, Regency and City of Semarang (Satjipto, 1980). The aim is to analyze the implementation of cash waqf in Central Java and its benefits can be used as material for government policies in implementing cash waqf law. The research type is field research using the empirical juridical approach

method. The research data is in the form of primary and secondary data, which includes primary, secondary and tertiary legal materials. Analysis of analytical descriptive data. The research results of the problem of cash waqf law in Central Java is; low public interest in representing cash waqf, lack of coordination between cash waqf institutions (BWI and LKS-PWU), lack of human resources in understanding cash waqf, and misunderstandings about the meaning of cash waqf. Juridical solutions include; increasing BWI management resources, optimizing BWI's performance, socialization

of waqf legal rules, forming a positive image of LKS-PWU, and increasing the professionalism of integrated management in managing waqf assets.

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COMPARISON BETWEEN JUSTICE INSTITUTIONS IN INDONESIA AND JUSTICE IN THE STATE OF KHILAFAH HIZBUT TAHRIR VERSION

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Keywords: crime, institution, court, state and khilafah.

According to the Central Bureau of Statistics, between 2015 and 2017 the number of crimes in Indonesia has declined relatively, but the number of villages that have the potential to become a venue for conflict has increased relatively. Thus, seen from the region, the potential for conflict that can lead to crime becomes increased. In 2015 there were 352,936 crime cases, in 2016 there were 357,197 crime cases, while in 2017 there were 336,652 crime cases (Sufiarina, 2015). Recently, the importance of the existence of a khilafah state has become an interesting discourse in Indonesia. In general, the discussion is more on political or power issues, but rarely addresses the issue of the judiciary in a

khilafah state. Related to this, in this paper we will discuss the comparison between the judicial institutions in Indonesia and the judicial institutions that may exist in a khilafah state along with the potential problems. The model of the khilafah state to be discussed here is a model of the khilafah state according to Hizbut Tahrir. Thus, this research is normative legal research.

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Comparison of The Concept of Mastery of The Space According to The Theory of The Space Law with The Mastery of The Space According to Positive Law of Indonesia

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Keywords: Concept, mastery, space, positive law, and Indonesia.

Space is no longer a no-man's space but has become an arena of competition for various interests from various

countries and international organizations. This is because currently space has economic value and strategic value that may be unlimited. In order for the

space potential to be utilized optimally, there is a need for understanding among the parties concerned. Thus, the existence of the theory of space law is an important thing to bridge the gap between the needs and availability of space in space, because not all positions in space have the same economic value and strategic value. Legal development in Indonesia has not really paid attention to the importance of space law (Muhammad, 2013). Positive law in Indonesia is still very limited in providing arrangements for the use of space, so that it needs to be increased and prioritized in the development of Indonesian law. Based on this, this

research is a doctrinal legal research using a legal approach which is described descriptively by using the deductive method.

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Theory of Dispute Settlement and Responsibility of Pre-and Post-Ratification the ASEAN Agreement on Transboundary Haze Pollution (AATHP)

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Keywords: Theory of dispute settlement, Responsibility, AATHP.

The provisions in AATHP are Formulated in general so that it needs a study of the theory of dispute resolution and responsibility for transboundary haze pollution. The purpose of this research is the first to analyze the theory of dispute settlement for transboundary haze pollution pre-and post-AATHP, second analyze the theory of responsibility for transboundary haze pollution pre-and post-AATHP. The method used is normative Juridical Research. Obtained data from field research will be researched, verified, and compiled According to the data sources. The Data will be analysed qualitatively, to support Data Obtained from a library researcher or in seeking answers to various problems that have been Formulated. Data analysis uses approach statute and case approach. Furthermore, the resulting research is in the form of analytical descriptive. The Conclusions in this study will be taken deductively and inductively. Further research will be presented in an analytical prescriptive form. Based on the results of this study concluded that firstly dispute resolution theory of pre-ratification of AATHP is interstate dispute resolution theory (Jerger,

2014) Post of Ratification, in Article 27 of the Agreement states that the settlement for parties that do not comply with the provisions in the agreement shall be settled amicably by consultation or negotiation. So indirectly, the agreement prioritizes diplomacy rather than law enforcement for the Offender. It uses the theory of "non-interference" (non-intervention) and the use of internal peaceful means to resolve Disputes without use violence. Secondly the responsibility theory used to resolve transboundary haze pollution pre-the ratification of AATHP, is the relative dispute resolution theory, and responsibility theory used post-ratification of AATHP is the Transformation Theory, that is, ratification cannot make an international agreement into force at the national level without the existence of special regulations governing the object of the international agreement.

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Comparison of The Concept of Mastery of The Space According to The Theory of The Space Law with The Mastery of The Space According to Positive Law of Indonesia

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Keywords: Concept, mastery, space, positive law, and Indonesia.

Space is no longer a no-man's space but has become an arena of competition for various interests from various countries and international organizations. This is because currently space has economic value and strategic value that may be unlimited. In order for the space potential to be utilized optimally, there is a need for understanding among the parties concerned. Thus, the existence of the theory of space law is an important thing to bridge the gap between the needs and availability of space in space, because not all positions in space have the same economic value and strategic value. Legal development in Indonesia has not really paid attention to the importance of space law

(Muhammad, 2013). Positive law in Indonesia is still very limited in providing arrangements for the use of space, so that it needs to be increased and prioritized in the development of Indonesian law. Based on this, this research is a doctrinal legal research using a legal approach which is described descriptively by using the deductive method.

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Independence and Integrity of Constitutional Judges: The Concept and Challenges of The Applications in Indonesia

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Keywords: Independence, Integrity, Constitutional Judges

The article aims at discussing the importance of independence and integrity of the Constitutional Judges in the light of the democratic system. The article also explores the challenges facing the application of the independence and integrity of the Constitutional Judges, with special reference to Indonesia. The article is based on normative legal research which uses philosophical, constitutional, comparative and cases approach. The result of the research shows that firstly, independence and integrity of the constitutional judges is important because theoretically, the constitutional judges are the

main actors who guarantee the working of rule of law principle of the countries. The constitutional judges are the guardian of the Constitution which means securing the working of democracy as well as the protection of citizen's rights. Therefore, strengthening the mechanism of the recruitment of constitutional judges is also important. Secondly, in the case of Indonesia, the quality of recruitment process of constitutional justices influences the quality of the constitutional justices. Thirdly, the challenges of implementation of the independence and integrity of the constitutional judges are strongly influenced by the political factor since the

constitutional judges are mostly appointed through a process which involves political actors in parliament and presidency (Ahmad, 2011). Accordingly, there is a need for better recruitment model of constitutional justices and statesmanship commitment from the political actors in the countries. The better model of recruitment of constitutional justices and statesmanship commitment of political actors of the countries will be determinant

factors which may lead the countries towards a developed and strong country.

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Disruptive Innovation in Competition Law: Study of Online Transportation Business

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Keywords: Disruptive Innovation, Competition Law, Online Transportation

The rapid development of digital technology encourages businesses to innovate their products and services. However, these business innovations often create an unexpected leap leading to disruptive innovation, such as the growth of online transportation business. As a result, the existing regulation cannot reach this leap (Schneider, 2015). This study aims to study: (1) the legal position of disruptive innovation in competition law; and (2) to analyze the status of application-based transportation in competition law. The method of this research is normative legal research, which examines various legal principles, legal theories, and legislation. Findings from this study are, first: disruptive innovation indeed creates chaos in business competition, but as long as it does not violate regulation about (1) activities that

are prohibited; (2) agreements that are prohibited; and (3) abuse of dominant position and run fairly, obey the law and doesn't inhibit the entry of competitors, it does not violate the competition law. Second, application-based transportation business raises recent problems concerning with the regulation that must be applied. Though the business platform is completely different from conventional transport companies, this new business platform does not violate business competition law.

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The Effectiveness of Dispute Settlement Through Facilitating of Sharia Banking in Indonesia's Financial Services Authority

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Keywords: Effectiveness, Facilitating, Dispute Resolution, Sharia Banking.

Dispute settlement facilitating in OJK is one of the effective instruments for resolving non-litigation disputes that have many benefits. However, the community's understanding of facilitating is not optimal, because the dispute resolution model with a facilitating mechanism has only been implemented after the enactment of OJK Regulation Number 1 of 2014. Some people are familiar with mediation, which in practice is carried out by alternative Indonesian banking dispute resolution institutions (LAPSPI). Facilitating resolutions through facilitating that have not been resolved for the parties can be done through LAPSPI. The purpose of this research is to find out the legal correlation between Financial Services Authority (OJK) and LAPSPI and how is the mechanism and procedure of proceedings at LAPSPI in the settlement of sharia banking disputes effectively. This study is normative and empirical research. The study used constructivism paradigm and was conducted through library research and field research. Primary data was obtained through research in the field conducted by interviews with OJK and LAPSPI leaders. Secondary data was obtained through library

research and legal documents (Hakim, 2015). The results of this study that the correlation

between OJK and LAPS is a legal commitment based on Law Number 21 of 2011 and joint decisions of four equal minister/officer, e.g (1) Coordinating Minister for Economic Affairs (Number KEP.45/M.EKON/07/2006), (2) Bank Indonesia Governor (Number 8/50/KEP.GBI/2006), (3) Minister of Finance (Number 357/KMK.012/2006), and (4) State Minister for State-Owned Enterprises (Number KEP-75/ MBU/2006) concerning the Financial Sector Policy Package, which was established on 5 July 2006. The mechanism and procedure for proceedings at LAPS includes the stages application-verification-confirmation-election of mediation/arbitration/adjudication to election-agreement-monitoring-implementation of the agreement.

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The Implementation of The Patient's Privacy Regulations in the People's Republic of China

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Keywords: Medical Act, Patient's Privacy Regulations, Patient's Rights, People's Republic of China.

Officials from the Chinese Ministry of Health have called for more attention to the protection of the rights to privacy of HIV/AIDS patients, following a court ruling

that a hospital damaged a patient's reputation by releasing false HIV-related information about the patient. The Xinzhou Intermediate People's Court of Shanxi Province rejected the appeal of the Xinzhou Prefectural

People's Hospital against the original ruling by a district court, in the country's first such case. The rights to privacy seem to be an issue in China, and it's actually a big deal which needs to discuss, especially in the medical matters since basically, the state has set the law regarding its citizens privacy (Zhao, 2017) Illegal access to personal information, illegal providing personal information to others and personal decision interference, all belong to the infringement of Personal Privacy Act. The rules and regulations on the privacy rights regulated in their Constitution since the 1980's, however it was not implemented maximally due to the power of government and general reluctance in the past to litigate. By using a

descriptive-qualitative method, the study will describe the implementation of the patient's privacy regulations in the People's Republic of China. Moreover, the study shows that the right to privacy for the patients in China needs to get more attention from government, medical personnel and ruling groups.

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The Urgency of Personal Data Protection Regulation in Indonesia: Comparative Study China, South Korea and Singapore

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Keywords: Artificial Intelligence, Big Data, Data Protection Regulation, Digital Innovation

Globally, Asia is one of the fastest growing regions for digital innovation. Digital innovation is really needed to support the development of a country, one form of digital innovation is the existence of artificial intelligence (hereafter AI). Moreover, in some countries in Asia have been promote the artificial intelligence use, and also enacted personal data protection regulation. Because data is the basic element of creating AI, so it is very important to have regulations regarding the protection of personal data. Indonesia as a developing country and currently facing for the industrial revolution 4.0 wherein the future it will also face increasingly rapid digital innovations (Mathias, 2017). So, to implement Artificial Intelligent in Indonesia, personal data protection is needed. The research aims to know (1) the urgency of enactment personal data protection regulation in Indonesia. (2) Comparative study with some Asian

countries such as, China, South Korea and Singapore on the enactment of personal data protection regulation. The research method used is a normative legal research, this research based on the secondary data which divided into primary legal material, secondary legal material and tertiary legal material. Furthermore, the methods of collecting data in this research will be done through library research by literature learning, this method will collect the data from reading, analyzing and try to make conclusion with relevant document. The data will be analyzed systematically through juridical qualitative.

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The Prevention Upon the Congenital Anomalies Effect Through the Child Protection Act: A Comparative Study with the United Kingdom

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Keywords: Artificial Intelligence, Big Data, Data Protection Regulation, Digital Innovation

Birth defects or congenital anomalies affect an estimated 1 in 33 infants, resulting in 3.2 million children with disabilities related to birth defects every year and 2.68 million infant mortality, 11.3% cause by birth defects. South-East Asia Region has the second highest prevalence of birth defects in the world, 9% of under-five deaths and 12% of newborn deaths in South-East Asia Region were due to congenital anomalies in 2015 (Related to this phenomenon, since 1976 the United Kingdom was established the law which is strictly protect the children from the congenital anomalies. This law was established by considering the congenital anomalies in consequence of some person's fault since genetic is not the only causative factor of the congenital anomalies but could also be happened due to the someone's act. By considering the condition of South-

East Asia Region as the second highest occurrence of Birth defects, Indonesia have to take an action in order to prevent or reduce the number of Birth defects. The existence of the Child Protection Act in Indonesia currently does not cover the issue of the congenital anomalies. There should be a revision upon the law in order to handle the phenomena of congenital anomalies. Through this research, authors aim to show the urgency of the prevention upon the congenital anomalies effect through the law in order to provide the protection and clear responsibility upon the children with congenital anomalies.

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Comparative Study between Indonesia and Taiwan in Protecting the Rights of Mental Health Patients: The Case of Human Shackling in Indonesia

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Keywords: Mental Health Law, Human Shackling, Human Rights, Comparative Law.

Indonesia is suffering with a lot of mental health disorder who have been in shackled or locked up in narrowed spaces. Approximately, there are 57,000 people with real or perceived mental health disorder and latest Human Rights Watch data shows that more than 18,800 people now live in shackled in Indonesia. Even though the government banned shackling in 1977, it's undeniable that many institutions, traditional therapists and families are still performing human shackling. Shackling people with mental health conditions is illegal in Indonesia and

yet it remains a widespread and brutal practice (Irmansyah, 2009). Regarding to this phenomenon, Indonesia has enacted the Mental Health Law 2014 which cover mental health issues and it aims to uphold for the rights of people with mental health disorders. Furthermore, the researchers would like to know how Indonesian government deals with the mental health patients in term of respecting, protecting and fulfilling their rights. Aside of that, the researchers also try to make comparative study with Taiwan as the country which has excellent health care system in the world.

Through this research, the authors aim to show the number of the human shackling in Indonesia still persist which caused by inadequate regulations, lack of mental health hospitals, low level educations and shortage of psychiatrists and other mental health providers. By considering the condition above, the research suggests that Indonesian government has to take important steps to end the practice of shackling people with mental health conditions in order to respect, protect and fulfill the human rights of mental health patients. Moreover, the Indonesian government should immediately order

inspections and regular monitoring of all government and private institutions and take action against facilities that practice shackling or abuse people with mental disorder.

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The Criminal Liability of Artificial Intelligence: Is It Plausible to Hitherto Indonesian Criminal System?

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Keywords: Artificial Intelligence, Criminal Liability, Indonesian Criminal System.

The pace of technology evolution is very fast. The technology has brought us to the limitless world and becoming our ally in every daily life. The technology has created a visionary autonomous agent that could surpass human capability with little or without human intervention, called by Artificial Intelligence (AI). In the implementation of AI in every area that could be in industrial, health, agriculture, artist, etc. (Yueh, 2009) Consequently, AI can damage individual or congregation life that is protected by criminal law. In the current Indonesian criminal system, it just acknowledges natural person and legal person (recht persoon) as the subject of law that can be imposed by criminal sanction. Hitherto and near foreseeable future AI has a notable role in every

aspect, which affects also criminal aspects due to the damage resulted. AI has no sufficient legal status to be explained in the Indonesian criminal system. In this paper, the author will assess whether the current criminal system of Indonesia can sue the criminal liability of artificial intelligence, and also will make it clear to whom the possibility of criminal liability of artificial intelligence shall be charged.

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Wildlife Law Enforcement in Indonesia: Why Can't We Enforce Like United States?

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Keywords: Protected Wildlife, Threatened Wildlife, Criminal Sanctions, Civil Sanctions.

According to Article 40 Paragraph (2) of Law Number 5 of 1990 on Conservation of Natural Resources and its Ecosystem, an individual who conducted crimes against protected wildlife is sentenced to a maximum of 5 (five) years imprisonment and a maximum fine of Rp 100,000,000. In the United States, the Endangered Species Act (ESA) charges the perpetrator against wildlife with criminal and civil sanctions. In § 1540 (a) (1) determines that anyone who “take”, import, export, transport or sell endangered species can be fined not more than \$ 25,000. If the species in threatened groups, the perpetrator can be subject to a penalty of not more than \$ 12,000. The enforcement of criminal sanctions against perpetrators who violate ESA criminal provisions must fulfill the element of "knowing." An individual who knowingly "taking", entering or importing, issuing or exporting, transporting or selling endangered species prohibited by the ESA are subject to sanctions maximum fine not more than \$ 50,000 and imprisonment for 1 year. If the action against the species under threatened group, the offender may be subject to criminal sanctions of a maximum of \$ 25,000 and

imprisonment for a maximum of 6 months (Koesnadi, 2002). In addition, additional crimes were also applied in the form of revocation of federal permits, rental permits, and hunting permits, as well as confiscation of all equipment and transportation equipment related to these violations. This study analyzed the enforcement of criminal sanctions in criminal cases against protected animals in courts in Indonesia and the United States. The results of the study showed that criminal sanctions against criminals against protected animals in Indonesia have never reached maximum imprisonment or maximum fines so that they are not sufficient to provide a deterrent effect for the perpetrators and become a warning to other communities. While the imprisonment sanction for criminals against protected animals in the United States is still relatively weak. However, in terms of criminal fines and civil sanctions can be categorized as high sanctions.

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The Used of Copyright Offense in the 4.0 Industrial Revolution

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Keywords: Copyright, IPR, Indonesia, Criminal Law, Offense.

The Industrial Revolution is a concept and a development that has fundamentally changed our society and economy. The fourth industrial revolution is characterized by a fusion of technologies that is blurring

the lines between the physical, digital, and biological spheres (Petre, 2016). The universal challenges on the revolution era is to concept and design the policies and laws to be implement in the latest development. Intellectual Property Rights (IPR) plays an important

role in the industrial legal protection. Furthermore, looking back in Indonesian legal development on the Copyright protection, there have been several changes in Criminal offense. This fundamental change is certainly affecting the enforcement of copyright law in

Indonesia. Thus, this paper aim to answer and review the legal reasoning behind the change of offense in Copyright Law in Indonesia. This study uses a normative legal with descriptive analytic method. The result of this

study is that the complaint offense is suitable when applied in the copyright protection. Considering only the copyright owner knows the details of the object of his creation.

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The Influence Of Sharia Compliance And Islamic Corporate Governance On Profitability In Islamic Banks For The Period 2013-2017

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Keywords: sharia compliance, Islamic corporate governance, profitability and Islamic Banks.

Basically, all sharia-based institutions have an applicable legal basis where the legal basis must refer to the Qur'an and Hadith. Likewise with Islamic banking in getting profits. Where Islamic banking must comply with Islamic Principles which are actually the basis of Islamic banking operations. The purpose of this study was to analyze whether Sharia Compliance and Islamic Corporate Governance had an effect on profitability in Islamic Commercial Banks in Indonesia for the period 2013-2017. In this study, the Independent variable are Sharia Compliance and Islamic Corporate Governance. Sharia Compliance consists of 4 indicators, namely Profit Sharing Ratio (PSR), Islamic Investment Ratio (IIR), Islamic Income Ratio (IsIR), and Zakat Performance Ratio (ZPR) while Islamic Corporate Governance with Self Assessment as an indicator. Dependent variable in this study is Profitability using the indicator of Return on Assets (ROA). The sample was chosen using a purposive sampling method where the total sample used in this study was 7 Islamic Commercial Banks with 5 years of observation period. Secondary data used in this study was carried out with documentation data collection techniques. The analytical method used is Partial Least Square (PLS). The test results show that Sharia Compliance has a significant and positive effect on profitability. While Islamic Corporate Governance has no significant and negative effect on profitability.

Tabel 2.
Discriminant Validity

Description	Islamic corporate governance	profitability	Sharia compliance
Islamic corporate governance	1.000		
profitability	-0.277	1.000	
Sharia compliance	-0.162	0.439	0.781

Source: Secondary Data processed (2019)

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Translating The Holy Quran: Tools And Resources For Translators In The Digital Era

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Keywords: Translating – The Holy Quran – Arabic/Malay – Tools – Resources – Digital Era

Translating the Holy Quran is often faced with problems related to lexical items, terms, idioms, and context. The internet has been of a highly significant resource for the translators to look for assistance for the purpose of finding, clarifying and validating their translation choices of certain problems they encounter. This paper outlines the various problems encountered in translating the Holy Quran and the resourcefulness of the internet in the forms the online dictionary, the encyclopedia, the advanced search tools in google search and other tools. The description of the problems and strategies are taken from the personal account of the writer as a translator in a project he undertook in translating the Quran into Malay. The paper will also discuss the advantages and shortcomings of these tools and the ways of optimizing its use. Samples are taken from the translation of the Holy Quran into Malay. The problems will be explained and relevant tools from the

internet will be related to the problems in terms of its usefulness in assisting the translators.

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A Quranic Guidance On Ethical Halal Policy Of Recombinant Collagen-Like Protein And Its Challenges In Digital Era

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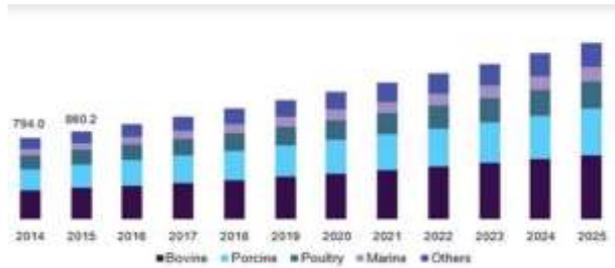
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Keywords: collagen-like protein, Halal policy, Halal issues, Halal production, digital era.

This paper discusses about the issues in producing of collagen-like protein. In this digital era, it is stated that there are existing challenges in production of Halal recombinant collagen-like protein. Initially, a number of collagen-like proteins have been recognised in bacteria during the last ten years, plenty of challenges are identified. The objective of this paper solved the challenges of recombinant collagen-like protein to overcome the high demands of collagen in this digital

era, limited supplies of collagen alternative, difficulty in addressing the post-translational modification of recombinant human collagen and the Halal certification of the material itself. It relies on inductive methodology to collect the Qur'anic verses as well as Hadith that related to face the challenges of recombinant collagen-like protein and the analytical method to analyse Qur'anic verses and Sunnah associated with this subject. The findings may also provide better understanding

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Participant Of Muslim’s Women In Islamic Philanthropy In Digital Era: Malaysian Experience

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Keywords: Islamic Philanthropy, Women, Participation, Society, Malaysia

In general, Islamic Philanthropy is an important instrument which can solve the socio-economic problem of a country. The ultimate goal of Islamic Philanthropy is to benefit the economy and society. The history of Islamic Philanthropy started since the time of Prophet Muhammad S.A.W. and has been continuously developed until today. This paper aims to investigate participant of Muslim’s women in Islamic philanthropy in digital era specifically in the contribution of *waqf* institutions in Malaysia. History and present have shown evidence of significant contributions of women in Islamic Philanthropy as founders, beneficiaries and *mutawallis* or trustees. The methodology that has been applied in this research is library research, seeking evidence of selected

Malaysian experiences of women’s participation in Islamic Philanthropy in the past and at present. The expected result is to analyse Malaysian experiences in the participation of Muslim’s women in Islamic Philanthropy institutions in digital era and to identify the need for improvements of the socio-economic conditions of the society.

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Significance Of Islamic Financial Literacy Among Women Entrepreneurs: An Analytical Study From An Islamic Perspective

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Keywords: Financial literacy, Financial education, Islamic finance, women, entrepreneur

In Islam, women have an important role in promoting the economic growth of a country, including their involvement in entrepreneurship. It acknowledges the positive contribution of women entrepreneur to the sustainable economic development of a country. Nevertheless, there are limitations in mobility and enhancement of women entrepreneurs due to financial illiteracy, especially in the areas where the financial transactions are in line with the Shariah, or better known as Islamic finance. Some are found to be running their business merely relying on personal experience or informal management of entrepreneurship with very little understanding of Islamic finance. This paper aims at discovering the significance of Islamic financial literacy education among women entrepreneur, and its importance in the economic development of the Muslim society. Literature review on existing subjects and interview method will be employed to identify the Islamic perspective on the aspect. The findings of this study

provide relevant inputs for, further development of formal Islamic financial literacy in the existing education system.

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Developing Scientific Character through Empowerment of Shame Culture in Higher Education

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Keywords: Scientific character, shame culture, religious doctrine, rules, punishment

The influence of digital era in Islamic education is significant. It has been developing the quality of human resources, accelerating the process of searching knowledge, and affecting demographic and social value aspects. This change drives the Islamic education curriculum to adjust with the challenges and needs in the digital era. Development of scientific character becomes the main base for the outcome of education. Scientific character is manifestation of scientific work ethos which includes physical and psychical in implementing and creating science, technology, and art. Scientific work ethos is empowered through fostering shame attitude. This research uses descriptive qualitative approach. The samples are the students of Islamic Education Study Program of Universitas Negeri Jakarta, who were selected by sampling quota technique. The research results show that, in developing the scientific character through shame culture, there are reinforcing components or stimuli that help the process. These reinforcements or stimuli are religious doctrine, reward, and punishment. These components serve as a drive or motive for certain

thought or action related to shame and are religiously or socially influenced. Developing scientific character through shame culture can be carried out by empowering and habitualizing aspects such as 1) the factors which trigger shame in academic activities, 2) the factors that maintain the shame culture in relation to God, other people and self, 3) the function of shame culture to motivate positive behavior, and 4) the function of shame or fear as a control and filter in creating and implementing science, technology, and art.

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Analysis Of Measurement Indicators Of Members' Cooperative Literacy In Islamic Savings-Loan And Financing Cooperatives (Kspps)

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Keywords: sharia co-operatives, co-operative literacy, partial least square-structural equation modeling (PLS-SEM).

This study aims to find out the indicators to measure members' literacy in several Islamic cooperatives in D.I. Yogyakarta and is expected that it could formulate an instrument to measure the co-operative literacy of members and boards. The analysis is conducted on 14 sharia co-operatives as samples, which were selected

using the purposive sampling method. Data is collected by distributing questionnaires to some members and boards of all sharia co-operatives which are sampled. The measurement of co-operative literacy utilizes six indicators, namely knowledge of institutional identity (JDL), duties and obligations of the institution (TDK),

organizational institutions (KL), the role of co-operative members (PA), sharia deposit mechanism (MS), and sharia financing mechanism (MP). The collected data are processed using partial least square-structural equation modelling (PLS-SEM) analysis. The results show that all indicators had significant influences on the level of co-operative literacy, which indicated that these indicators could be used as attributes of instruments to measure the level of co-operative literacy. In addition, it is also known that, although in general the co-operative literacy of sharia co-operative members and boards in D.I. Yogyakarta is quite good, but their understanding mostly in the attributes which are associated with sharia deposit and financing mechanisms rather than other aspects.

	Scores	p-value
APC	0.228	$p < 0.001$
ARS	0.532	$p < 0.001$
AVIF	1.830	

School Readiness in Implementing Inclusive Education

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Keywords: School Readiness, Inclusive Education, Muhammadiyah

This research aims to find out the readiness of Muhammadiyah elementary schools in implementing inclusive education in the schools. The inclusive education in the Minister of National Education Regulation Number 70 of 2009 - Article 1 is explained as a system of education that provides opportunities for all students who have abnormalities and the potential of intelligence and/or special talents to participate in education or learning in a single educational environment together with other students. Therefore, inclusive schools should adjust the curriculum and learning process according to the needs of all the students.

School readiness is an essential pathway in organizing inclusive education. This study uses a case study methodology with a purposive sampling technique to research school readiness. The data collecting uses in-depth interview and observation and would be analyzed by thematic analysis method. This research provides

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worthy indicators of school readiness in executing inclusive education.

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Increasing Of Preaching Interest Through Historic Field Trip Learning

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Keywords: Islamic education method, fieldtrip learning, preaching interest, Muhammadiyah studies, Muhammadiyah Heritage Trip

One of the Muhammadiyah education functions known as the preaching of “*amar makruf nahi nungkar*” (invite to the goodness and avoid to the meanness). This spirit is internalized at all levels of education in the Muhammadiyah School, especially through compulsory subjects called “*Al Islam dan Kemuhammadiyah (AIK)*” (Islamic and Muhammadiyah studies). One of the method used in educating AIK is field trip in the kampong where Muhammadiyah established by its founder KH Ahmad Dahlan at 1912, Kauman of Yogyakarta. Field Trip learning method is used in this study in an effort to increase the interest in preaching for students inspired by KH Ahmad Dahlan. The aim of the study is to analyze differences in the interests of preaching to participants before and after participating in field trip learning. This study used the experimental method with pre-test post-test design. The variables of this study are field trip learning method and the interest in preaching. Data retrieval method used an open questionnaire. The participants of this study were students of Islamic Education at the Muhammadiyah University of Yogyakarta who have been educated to become preachers and facilitated to become preachers

through AIK course. The results of this study are two. First, factors of experience and education affected the interest in preaching to another. Second, the modification method of the learning method used the field trip method in order to increase the interest in preaching is very effective. The participants experienced increased knowledge about the preaching method that had been carried out by KH Ahmad Dahlan that they got from the field trip.

Pretest	Experimental Treatment	Posttest
Open Questionnaire, preaching interest	Field Trip Learning “Tour de Muhammadiyah	Open Questionnaire, preaching interest

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Deemed Consent In Islamic Contract: Shariah Analysis And Application In Islamic Banks

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Keywords: Consent, Deemed Consent, Silence/*Sukut*, Shariah Parameter, Legal Maxims

Deemed consent is considered as an important concept in which the bank use to ensure the contract can be deemed as valid contract although without approval and consent of the customer. Technically, a contract is not deemed as a valid contract until an offer is accepted by contracting parties. In fact, the positive acceptance is the basic and most important element in Islamic compliant based products and services. However, a number of Islamic Financial Institutions (IFI) has been using the deemed consent concept in certain circumstances with the consensus of their own Shariah Committees (SC). Until now, no guidelines from Shari'ah scholars nor parameters were developed by regulators to guide and govern the implementation of deemed consent in IFI's products and services. Some important questions to be addressed for example; Do deemed consent itself is considered as Shariah compliant concept? Do deemed concept fulfil the required pillars and conditions of Shariah contracts? What is the parameters to be imposed to the current practice of deemed consent to be

acceptable according to the Shariah perspectives? Do deemed consent need to have certain condition and limitation, to ensure it is comply with the Shari'ah and can be legally enforced? Hence, this paper aims to answer these questions as a potential guide for any industries players to conduct this unique concept into their products and services. Shariah deliberation in deemed consent is really important to avoid any dispute occurred later that can give negative impact to the both contracting parties.

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Shariah Guideline on Value-based Intermediation Scorecard in the Light of Maqasid Shariah Analysis

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Keywords: Value-based Intermediation, Maqasid Shariah, Sustainability, Shariah Scorecard, Islamic Financial Institutions.

Value-based intermediation (VBI) has been introduced by Bank Negara Malaysia (BNM) as the next strategic direction and growth driver for Islamic banking institutions. The aim of VBI is to deliver the intended outcome of Shariah through practices, conducts, and offerings that generate positive and sustainable impact to the economy, community and environment which is aligned to Maqasid Shariah in preserving the common interest of society by preventing harm and maximising benefit. Hence, upon its implementation, VBI will experiment the current Shariah compliance treatment

and revolutionise new policies and systems that can meritoriously entrench and convey the objectives of Shariah. However, discussion revolving VBI in the light of Maqasid analysis is still scarce hence further research needs to be undertaken. The idea of assessing the VBI scorecard from the perspective of Shariah is yet to be explored. The contemporary scholars also have different views on the implementation of VBI. This paper aims to discuss the importance of Maqasid Shariah in the current Islamic finance transactions by providing Shariah guiding principles in analysing the VBI Scorecard. Hence this study is to explore basic Shariah guidance

and parameters based on the objectives of Shariah; preservation of the five pillars (religion, life, progeny, intellect and wealth) with further elaboration on preservation of wealth under five headings: *rawaj* (circulation and marketability); *wuduh* (transparency); *hifz* (preservation); *thabat* (durability and tranquillity); and *'adl* (equity and justice).

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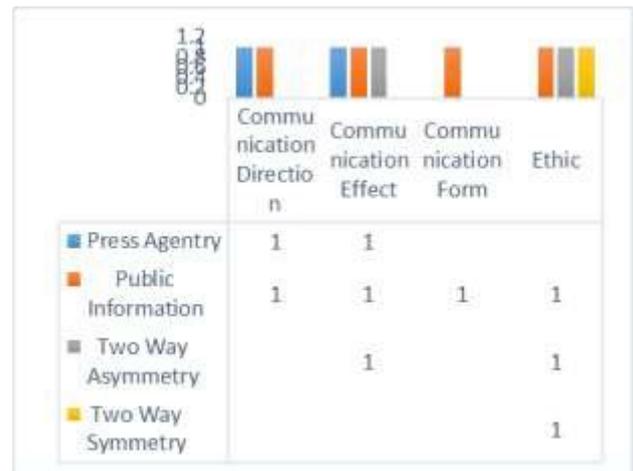
Integrated Versus Subordinated: Public Relations Application in Faith-Based Women Organization

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Keywords: Public Relations Application, The Four Models, Aisiyyah, Faith-Based Women Organization.

This paper offers a critical interpretation of public relations (PR) generic principles application in faith-based women organization. In particular, this paper examines whether this organization should manage PR in separate management. This study takes up the PR application in Central Board of Aisiyyah (CBA) since it subordinated the PR function to a secretary in the administrative period on 2010 down to date, whereas it engaged with PR as a single department on 2005-2010. This subordination turns into vice versa application of the generic principle because if the significant contribution of PR considered, its application pattern should be run from subordinative, as a part of another department, into an integrative management function. Therefore, this paper elaborates the PR application in both periods and the factors working on it. The research method was a case study using the four models as an analysis framework. The results indicate that there is no significant difference between the period of subordination and before. The factors influenced its applications are knowledge and skill, shared expectations, participative culture and organizational identity. Thus, the results have theoretical and practical implications for PR application in faith-based women organization.



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Increasing the Role of Zakat Institutions in Poverty Reduction through Productive Zakat Programmes in Indonesia

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Zakat Institutions have an essential role in helping the poor and the zakat recipient through empowerment programmes. Thus, zakat plays a vital role in the life of Muslims, especially in alleviating poverty. Furthermore, zakat institutions as mediators between rich people and poor people with various programs to reduce poverty. However, even though the allocation of zakat funds has been improved and is growing every year, the problem of poverty, unemployment, and inequality has caused many issues to be debated. This study intends to discuss poverty alleviation programs made by zakat institutions in Indonesia through productive zakat programs by using descriptive qualitative methods. Managed and distribution of zakat funds with a productive zakat programmes are reviewed and provided as model of zakat distribution. Problem of implementation of productive zakat on the zakat institution in Indonesia are listed. While tentative solution are suggested with a hope of triggering better solutions. At the end of discussion, a list recommendations for future researches is proposed for consideration.

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Keywords: zakat institutions; productive zakat; Funds distribution; alleviate poverty

Years	2017	2018
Education	1.088.758	1.415.385
Health	1.544.611	2.007.994
Humanity	3.980.188	5.174.244
Economy	365.829	475.578
Da'wah-Advocacy	1.753.646	2.279.740
TOTAL	8.733.032	11.352.942

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The Development of Fiqh al-Muamalat in Indonesia; An Intellectual History Perspective

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Keywords: fiqh al-muamalat, Islamic book, Islamic economy in Indonesia

This research aims to address the history of development of Islamic business law (fiqh al muamalat) in Indonesia during sultanate era, colonialism, post-independence, and post-Suharto. Critical qualitative research with the intellectual history approach is used to explore the data in documents (i.e. books) were published. All long, the development of sharia economy in Indonesia after 1990 can not separate from the intellectual history facts where fiqh, especially fiqh al muamalat has been playing as main social-historical role in Indonesian society. To give an instance, the Aceh Sultanate used kitab Mir'at al Tullab by Abd Al-Rauf Al Sinkili for the economy and business act. The key findings of research are: first, selected bibliography on fiqh al muamalat which represents three periods of Indonesia namely pre independence with a total of 12 books, post independence with a total 13

books and post Suharto until 2017 with a total 105 books. Second, there is a publishing surge on fiqh al-muamalat books in post-Suharto stimulated by freedom of expression during reformation era. The freedom of expression created a channel for some intellectual and muslim authors to write books, especially in this context to boost the development of sharia economy where is in need many references.

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Teacher Identity Reconstruction: Socio-Anthropological Study of Javanese Society in the Digital Era

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Keywords: Reconstruction, Teacher Identity, Socio-Anthropological, Javanese Society, Digital Era

This article focuses on teacher identity shift, in the digital era in the Javanese community. Teachers in a traditional situation are those with a honorable position because of being the reference and role model for their community. In addition, the teacher is also considered responsible for all students' behaviors both in and outside the classroom. In this digital era, this condition has shifted due to the occurrence of socio-anthropological changes in society. Even though the identity of the teacher is shifting, they remain pivotal in the transfer of values in learning. However, this condition is not entirely the responsibility of a teacher. The qualitative approach in this study is to deeply look into how the reconstruction of the teacher identity is carried out in the modern changing socio-anthropological situation in Javanese society. As a result, It has been found that in the context of Javanese people's lives, socio-anthropological conditions in the modern technology have an effect on shifting the meaning of teachers. Teachers are considered only as ordinary professions and have the same degree as other

professions. Thus, This is because the transfer of knowledge that is easily obtained by all people causes the position of the teacher to no longer be regarded as a person of science and knowledge center.

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The Reform Of Islamic Education In The Spiritualization Of National Character In The Digital Era

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Keywords: Reform, Islamic Education, Spiritualization, Character, and Nationality

This research examined the reform process that took place in Islamic education on the value of the spiritualization of national character in the digital era. In this context, reform is an effort to develop, construct, and reunite educational values with the existing concepts that have become reference and source in the development of Islamic education, especially the spiritualization of national character to create a better situation than before. The reform of Islamic education is an Islamic revival in Indonesia, not only in the 20th

century but until the digital era. The reform of Islamic education is seen critical in the context of the spiritualization of national character, given the destruction of moral values, the widespread of injustice, and the lack of solidarity occurred in the educational context. This is library research, a research study that is sourced from library materials using a qualitative approach. Thus, the process is done by exploration of some primary and secondary data with concrete steps as follows: deeply reading and examining the primary

data such as books as the results of research, theses, and dissertations related to this topic. Therefore, the reform of Islamic education in the digital era leads the students to be intellectually and spiritually smart in regard to create a generation with strong and positive characteristics.

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The Usage Of Gadgets For Religious Activities Among Muslim Teenagers In Yogyakarta

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Keywords : religious activities and gadgets; gadgets and Muslim teenagers

The technological changing has always affected to the existence of the society, not only for helping their daily activities but also how they interact and doing religious activities. This study describes the gadget utilization among Muslim teenagers for their daily religious activities. The data gathered from 500 Muslim teenagers spread from five regencies in Yogyakarta province in 2018. The data analysis is through clustering the respondents' daily religious activities, religious activities using the gadget, their interest in Islamic issues, and their lifestyles. This study results in four clusters of Muslim teenagers in term of their religious movement using devices related to their lifestyles and interest in Islamic issues. The four groups are religious minimalist, religious activist, intellectual religious and millennial religious.

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Islamic Microcredit-Based Financing Analysis: A Study Of Islamic Banking In The Special Region Of Yogyakarta

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Keywords: Financing Analysis, Islamic Banking, Microfinancing, Microcredit

Micro, Small, and Medium Enterprises (MSMEs) contribute significantly to the Indonesian economy. Their crisis-resistant nature makes MSMEs the backbone of the country's economy. Nevertheless their operation is not without let or hindrance and among the constraints facing them include bookkeeping that remains simple and not up-to-date, small profits, lack of experience, small economies of scale, limited business capital, and lack of ability to obtain capital. The majority of MSMEs lacking access to capital provisioned by banks fail to meet the criteria for obtaining loans from banks. To overcome those problems the government of Indonesia runs a microcredit program called Kredit Usaha Rakyat (People's Business Loan), abbreviated as KUR. As the country with the world's largest Islamic population, sharia is the major concern of its Muslim communities

when carrying out transactions. Therefore, the government has appointed an Islamic bank to disburse KUR. KUR-based financing disbursed to unbankable MSMEs by an Islamic bank runs a greater risk. This condition poses a challenge for an Islamic bank in conducting a financing analysis that upholds prudential banking. This is qualitative research using a triangulation method to verify the validity of the data obtained. The research was undertaken at an Islamic bank in the Special Region of Yogyakarta, Indonesia disbursing KUR. Based on the research findings, it was revealed that the banks adopt the "5 Cs" method (Character, Capacity, Capital, Collateral, and Condition of Economy) when conducting a financing analysis of their prospective KUR recipient customers.

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The Concept Of Hadith *Maudhū* And Its Contextualization In Information Management In The Digital Era

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Keywords : *Hadith Maudhū*, Information Management, Digital Era

The purpose of this research is to discuss the role of *ulumul hadith* studies in responding to contemporary problems, specifically to discuss the concept of *hadith maudhū*, as well as its relevance and contextualization in helping and responding to news or information in the digital era, especially in dealing with hoaxes, where there are similarities of motives, indicators, and solutions to eradicate them. The results of this research are expected to be useful and contribute both practically and theoretically. The practical benefits of this research are expected to be able to provide encouragement and motivation to Muslims to always study vast treasures (*khazanah*) of Islamic science, especially in the *ulumul hadith* studies, so that a moderate Islamic society is realized and always prioritizes caution and clarification in accepting and disseminating news and information in this digital era. The type of this research included qualitative research, and its primary sources were the principles *ulumul*

hadith books which discussed about *hadith maudhū*. Additionally, its secondary sources were the information contained in journals, websites, and others. This research used content analysis approach. This method was used to conclude efforts to bring up the characteristics of messages carried out objectively and systematically.

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Muslim Millennials Consumption Behavior On Instagram: An Islamic Economics Perspective

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Keywords : Islamic consumption, Consumer behavior, Muslim millennials

The APJII survey results in 2017 showed that 143.26 million people or 54.68% of the total population of Indonesia used the internet. While the composition of internet users is dominated by the age range of 18-34 years which is equal to 49.52%. Instagram users are also dominated by the same age range, which is 36% of users. In the age range of 18-34 years, 56.2% follow digital retailers. This paper offers the uniqueness of using millennial Muslim objects and linking them to social media. This paper aims to find out what factors influence the consumption behavior of millennial Muslims on Instagram in Islamic economic perspective. According to Jaribah Al-Haritsi, Yusuf Qardhawi and Monzer Kahf, the basic principles of Islamic consumption include sharia principles, quantity principles, priority principles, social principles, and environmental rules.

This study used sample of 255 respondents who were determined by the formula Isaac and Michael. The results of the study concluded that the principle of

quantity and principle of priority influenced the consumption behavior of millennial Muslims on Instagram. While sharia principles, social principles, and environmental rules have no effect. The novelty in this research is the discovery of the consumption behavior of millennial Muslims from the middle class who only hold the principle of quantity and priority principles.

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The Influence Of Discipline Of The Player In Congregation On Student Learning Achievement

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Keywords: Discipline, the player in congregation, learning achievement, students

This research is a quantitative study regarding the influence of discipline of the player in congregation on student learning achievement. This research is motivated by the phenomenon of education in Indonesia which makes learning achievement at benchmark for the success of student learning in schools. Researchers are interested in discussing it more deeply, because they assume that class XII in high school can be used as a level that is sufficient to present the learning achievement of student in school and its intensity in the discipline of prayer in congregation. The subject of this study were class XII students of high school in the 2018-2019 academic year in Jakarta who had access to fill out online questionnaires. The research sample was taken by non-probability sampling technique. The results showed that there was a positive and significant influence between discipline of prayer in congregation with student learning achievement ($P < 0,05$), which was known from the regression value of 41,4% and 69,9% of the rest influenced by other factors. The conclusion is, to getting closer to the perfect scorer (1) of student learning achievement can be increased by disciplining the congregational prayer.

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Islamic Faith Challenges In The Digital Era

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Keywords: High-technology, Social media, Disruption, faith, challenges

That high-technology and its derivative devices has disrupted the old established mode of life is widely understood. Many studies investigated how the late development of technology interrupts human enterprise in economy, politics, culture, etc. However, few researchs are conducted to see whether this advancement also infiltrate the most determinant base of human life domain of faith. This paper argues that although it is unnoticed by many, the effects of technological disruption in the field of believe are massive and substantial. The way people interact in social media, as one of high-technology devices, erodes people's bond to moral and spiritual conscience. For example, the use of social media enabling netizen to act as in anony account. This anonymity are increasing the dissemination of fake news and

superficial religious interpretation. The algorithm of some specific media platform that promotes appealing but comy popularity also works to decrease people commitment to classical ethnic normss. This is a literature study using previous research related to media studies. It aims to analyze how the development in social media in the cyberworld affect he field of religious faith and moral conscience.

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Synergizing Between Progressive Values And Social, Emotional, Spiritual Intelligence In Islamic Education In The Digital Era

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Keywords: Progressive values, social intelligence, emotional intelligence, spiritual intelligence, Islamic education

One of the problems found is the lack of synergy between the social, emotional and spiritual attitudes with the student's knowledge and skills in following technological developments in the digital era. Thus, Islamic education must be prepared and should not to be complacent in facing thus era. This paper aims to explore the synergy between progressive values and social, emotional, spiritual values in islamic education in order to face the challenges of the digital era. The synergy of those values is implementes in the goals, methods, material, educator qualification, and evaluation. This paper used library research using library materials sources and qualitative approach. The graduates who have scientific knowledge accompanied by social, emotional and spiritual values that are interest in themselves. This goal can only be achieved

if the learning system uses a model if integration between science and technology mastery and islamic values in the selection of materials, methods, and evaluations. Meanwhile, the qualification of educator needed to realize the expected goals is derived from the model exemplified by the Prophet Muhammad which has four competencies namely, personal competence (sidiq), social competence (amanah), pedagogical competence (tabligh), and professional competence (amanah).

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Pseudo Symbiosis Between Religion And Politics

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Keywords: symbiosis, religion, politics

This study is motivated by national social and political developments in Indonesia. The phenomenon that arises is that religion is used as a vehicle to achieve political goals. On the other hand, to accommodate religious goals requires support from the authorities' policies. In other words, the existence and interests of religion need political support. The main purpose of this paper is to analyze the pattern of relations and dominance between religion and politics. On the one hand religion is used as a means to achieve political goals. While on the other hand religious interest are also fought through politics. This study uses a normative, historical, and sociological approach as the analytical knife. The conclusion of this study that in certain conditions the pattern of relations between religion and politics is symbolic parasitism. In this case

religion becomes the laser because there is no balance between achieving interests between the two. The phenomenon that appears is that politics dominates religion. This is evidenced by the achievement of political interests through religion as its vehicle.

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Dakwah Through Television: Study Of Mcdonaldization Of Da'wah In The Month Of Ramadhan

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Keywords: Da'wah, television media, Mcdonaldization

This paper looks at the rise of da'wah through television media in the month of ramadan with a variety of approaches tailored to various conditions in the Indonesian Islamic community. Thus, there is a demand for preachers to understand the development of communication and information technology, so that being able to convey Islamic teachings is not only facing to face. The development of da'wah itself cannot be separated from the culture that is built by today's society. A modern society that tends to be pragmatic and hedonic cannot be separated from the target of preachers. They prefer the traetise of da'wah through television media which is easily accessed by people from various social statues. This research saw six da'wah events through television namely : Life

Interpretation on TV One, Pelita Hati on Metro TV, Islam Itu Indah on Trans TV, Kultum on Trans TV, Bunga-Bunga Hati on RCTI and Bicara Islami on RCTI. In this event, there is an interaction between preachers and mad'u through symbols packed with da'wah material through television media. Then came the term McDonaldization Da'wah, which consisted of four principles, namely : *efficiently, calculability, predictability, and control*. This is an answer to the needs of modern society in understanding the teachings of their religion through instant treats, but able to provide an understanding of islamic teachings.

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Challenges In The Digital Economy Era Of Muslim Msmes Organic Products In Malang City

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Keywords: Muslim MSMEs, Organic Products, ProLM, Digital Economy

Muslim MSMEs that produce food made from organic crops in Malang City engage both creativity and innovations. At present, product innovation is unfortunateli insufficient, due to facing obstacles in developing their products. This paper depicts a result on the implementation of the triple helix creative ecoomic model on MSMEs based on Islam spiritual value and pprinciple. This study utilizes mixed methods by engaging Prophetic Leadership and Management Wisdom (ProLM) training. The training was intended for strengthening the spirituality of Muslim MSMEs in organic product, involving several principle of *Shiddiq, Amanah, Fatonah, and Tabligh*. Meanwhile, the analysis tool employs the Hotteling T² Test. The results demonstrate the difference between those participating

in the training and those not participating in the training. Thus, ProLM can strengthen then spiritual value for muslim MSMEs of Organi Products in Malang City. These MSMEs are persistent in product innovation, despite experincing obstacles in developing products due to limited network. Therefore, the idea of developing network is vital to carry out marketing innovationss to met the challenge in digital economy era.

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Embryology In The Qur'an And Hadith: Expanded Multidisciplinary Perspective

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Keywords: Nuthfah, 'alaaqah; mudghah; embryology; Al-qur'an and hadith

Anatomy Divison Development of fetus in uterus (embryology) was much mentioned in the Quran and hadith. Along with advances in science and technology, especially in the digital era, reinterpretation if embryology with the multidisciplinary approach between Islamand medical sciences, especially embryology, is a challenge and a necessity so that Islamic teachings can be the right answer in overcoming the problems faced by the people. This study aims to analyze embryology in the Quran and hadith based on the expanded multidisciplinary perspective. This study used library research method with multidisciplinary approach between Islam and Medical Sciences, especially embryology. The result of the study showed that the stages of Nuthfah, 'alaaqah; mudghah and blowing of spirit already were formd

within 40 days pragnancy. These stage are embryology more accurately translated as follows: nutfah as “ the conception of a part of a women ‘s fluid (ovum cell) by of part a male fluid (spermatozoon cell)” alaaqah as “ resembling leech, something that attached to the surface, and something that depanded.” And mudghahah as “resembling a chewed substances” Alaaqah and mudghahmorpologically and functionally describe human characteristic that can be shaped and affected by internal and external factors

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Digitalization And Stagnation Of Growth In Indonesia Islamic Banking

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Keywords: Islamic Bank, Fintech, Servqual, Utaut2, Religiosity

Despite its high growth, Islamic banking market share in Indonesia is quite small compared to the entire financial market. Given that Indonesia's majority population is Muslim, this data Contradicts prior researches, which conclude that religiosity as major factor to embrace Islam banking. Other studies find sevral factors that affect

customers decision in financial service provider selection, including service quality of SERVQUAL and UTAUT2 are combined with religiosity of exmine the costumers' bbehavior regarding financial service selection. The result emphasize that Islamic banking stakeholders should arouse public awareness about sharia compliance in daily activities, because market share does not adequately rely n large Muslim Population.at the same time,digilazation has changed

costumers's preferences regarding the expected service model. Thus, although many costumerss are still hesitani about fintech due to lack of assurance, soon the new service providers can become a serious contender for Islamic banks..

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Development Of Social-Emotional Learning For Alpha Generation In Islamic Education Perspective

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Keywords: Social-Emotional Learning, Alpha Generation, Islamic Education

The Progress of the increasingly requires humans to be able to answer Various challenges of existing problems. The era of digitalization, as we call it the industrial Revolution 4.0, changed all forms human life. Create what was not exist, and replace what already exist. It cannot be denied the digitalization era has helped change the current educational order, including Islamic education. As the era progressed towards digitalization moral degradation was increasingly prevalent. One effort to overcome moral degradation in the school environment is by implementing Social-Emotional Learning (SEL) the generation of Alpha (GEN-A) that will fill educational institutions at the primary school level for the next few years will be the main focus of this paper's discussion. So this challenge for educational institutions, parents and teacher how to implement SEL in a concert manner in classroom learning consisting of Gen-A students, especially in Islamic Education (IE) subjects. The research method uses library research. from this study we found that SEL Approach is still relevant for students of Gen-A Elementary School in the (IE) model. However, some renewal is needed for the SEL approach related to the digitalization

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Building Character Of Sharia-Based Human Resources As Significant Component In Facing Asean Economic Community (MEA)

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Keywords: Sharia-based Human Resources, ASEAN Economic Society (MEA)

This research aims at analyzing the characters of Sharia-based human resources in facing ASEAN Economic Community (MEA). The data used were those of qualitative data compiled from literature and other supporting sources. The Approach used was qualitative approach using an in-depth study of literature review on the aspects of Sharia-based human resources. An interesting aspect of the finding is the internationalization of tawheed (monotheism) reinforcement as the main foundation for all practitioners/ observers/ economic society consisting of 1) Merchants or entrepreneurs 2) Capital owners 3) consumers 4) labors. Further, the competence and the cultures of Sharia are highly supportive toward the process of building habit/custom among all parties involved including government as a policy maker: especially the one which is in favor of realizing MEA. In addition to that, government also acts as party who postulates rules and regulation.

Table.1 Moslem Population Research Data of the World's Moslem Population in 2014

North America	8.04 million
Europe	56.18 million
Oceania	1.77 million
South America	2.07 million
Africa	581.58 million
Asia	1389.5 million

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Full Day School As Character Education Strengthen In Sdit Insan Utama Yogyakarta

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Keywords: full day school, strengthntg character education, student.

This study aims to explore, examine. And describe implementation full day schools a reinforcement of character education. This study is qulitatif research with using study casus appoch. Data were colcted through interviews. Observation. And unclnlalion. Data validity used is the technique of triangulation the research shows that (1) the implementation of the full day school began since the establishment of the school in 2002. The implementation uses five effective days of Monday to Friday school starting at 7.00 am until 15.00 am Saturday is used as a day for extraculicual activities. In the implementation of the learning carried out by the PAIKEM method: (2) characteristics of full day school as strengthening character education at SDIT Insan Utama Yogyakarta apply the concept of the integrated curriculum and integrated activity. (3) The psychological

impact of full day school student has been good because the school has packaged learning in school with sant things that do not exclude the psychological aspect of the child from the world of play. (4) The full day school program model that is able to strengthen childrens character education is a school program that is able to create posiritvc schooling.

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Synergizing Parenting Style Between Sacred Text And Baumrind’s Context

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Keywords: Synergizing parenting style, sacred text, Baumrind’s Context

Diana Baumrind’s concept of parenting emphasizes a positive emotional development through intense communication between parents and their children. Meanwhile, parenting patterns or styles have been outlined in the Qur’an and the Hadith as guidance in developing children’s nature, characters and behaviors, which is to be noble human beings so that they can be the *khalifah* on earth. Parenting in the Qur’an and the Hadith highlights *parents role model* through humanistic and warm approaches as well as *uswatun hasanah*. This article analyzes and synergizes similarities of parenting patterns between the existing textual sacred texts (i.e. the Qur’an and the Hadith) and the contextual parenting (i.e. psychology) in more depth.

Table 1: Synergizing Parenting Style Between Sacred Text And Baumrind’s Context

NO	Al-Qur’an-Based Parenting	Baumrind’s <i>Autoritative</i> Parenting
1	Parenting with exemplary	-
2	Parenting by habituation	Parental maturity demands

3	Parenting by advice	Parent-child communication
4	Parenting with attention and supervision	Parental nurturance
5	Parenting with punishment	Parental control

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Exclusivism in Cyberspace: Challenges in Interfaith Communication

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Keywords: Exclusivism, Echo Chambers, Interfaith Communication, Cyberspace.

This article tries to see a phenomenon called Echo Chambers through the perspective of Stella Ting-Toomey's Intercultural Communication Theory. This study shows that the development of social media was also followed by the shadow of Echo Chambers. The tendency to isolate oneself and associate with those who understand one another will create separate spaces between one religion and another. As a result, communication which is an effort to eliminate the polarization of the differences between "Us" and "The Others" is precisely the way to form an exclusivism in cyberspace. Among the efforts to anticipate the emergence of a gap is to create melting-pot spaces in the real world. Counter narrative also needs to be built to open these exclusive barriers. Muslim scholars sought to introduce the importance of communication in achieving the harmony in community. Some Ulama have also explained the role and function of communication in

achieving the goals of the ummah, as well as trying to provide an Islamic perspective regarding communication behavior. More important, is to create a person who is a wise, open user of social media and uses epoche in looking at the world outside.

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Islamic Perspective On Social Media Literacy

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Keywords: Islamic Perspective, Literacy, Social Media

In a media-saturated world, public wisdom is required in literating information. The requirement for literating information is also taught in Islam, so that Muslims are able to filter information received. This study includes library research and uses descriptive methods, namely discussing the verses of the Koran related to literacy by referring to the opinions of commentators. The results of the study showed that (1) social media is the biggest content of access; (2) Islam requires to literate information; (3) Islam forbids trusting faculties and (4) accountability for every act in Islam. In conclusion, Islamic teachings require every community

to improve literacy skills because literacy is the practical way of improving the quality of one's life.

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Halal Tourism in the Digital Era: A Maqasidic Perspective on Halal Tourism in Indonesia and Morocco

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This study shows two important findings: first, the *maqasidic* approach to Halal Tourism leads the tourism stakeholders to move beyond “prohibition-driven” paradigm in tourism. The Halal Tourism framework is pushed to reach the level of maximum quality of products and services provided by the tourism stakeholders. If this framework is used and applied by Halal Tourism stakeholders and providers, Halal Tourism would appeal to a wider range of potential audiences, not only Muslim travelers.

Second, interestingly, the discussion of *maqasidic* approach in tourism could revise the existing concept of *maqāsid al-sharī‘ah*. If the previous and current Muslim scholars generally associate the notion of *maqāsid al-sharī‘ah* with the five essential and necessary objectives (i.e. preservation of religion, soul/life, reason, progeny/offspring, and wealth), the above discussion proposes two other objectives, namely the preservation

of local culture and wisdom (*hifẓ al-‘urf*) and preservation of God’s creation (*hifẓ al-khalq*) to be included in the notion of *maqāsid al-sharī‘ah*. This could be a significant contribution from Halal Tourism studies to the field of Islamic studies in general.

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The Leadership Instructional Ability of Principal In Strengthening Student's Character Of Muhammadiyah Middle School

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Keywords: Instructional leadership, Principal, Strengthening character

The increase in cases of delinquency in high school age shows that the leadership role of the principal is still low. Principals in increasing teacher professionalism have an impact on improving student achievement and improving student character. This study aims to determine the ability of principals to carry out Instructional Leadership to improve teacher teaching performance so that it has an impact on improving student character. This research model is descriptive evaluative. Subjects were selected by purposive sampling and triadic covering 15 principals, 150 teachers and 450 students from DIY. Data collection techniques used observation, interviews, questionnaires, and documentation. Data analysis techniques using mixed methods. Quantitative data were analyzed using descriptive statistics and linear regression, while qualitative data were analyzed using Miler and Huberman's theories which included four stages: reduction, display, triangulation, and conclusion. The results of this study conclude as follows: (1) Mild delinquency is still done by students, including: smoking, scribbling, truant, bullying friends, making gangs, opposing parents, playing lots of cellphones, and being lazy to worship; (2) Character strengthening is carried out through extracurricular programs, socialization of order books, cooperation with external parties; (3) The instructional leadership ability of the Muhammadiyah Junior High School principals is still low, in terms of preparing targets and strategies for school achievement, making standards for learning services, and creating patterns of teacher competency development; (4) The magnitude of the influence of Instructional Leadership in changing student characters is obtained by a percentage of 12%, while 78% is influenced by other

factors; and (5) the inhibiting factor of principals' instructional leadership is the lack of cooperation in building a shared vision in educating children between school and parents.

Table 4. Good habits of students

Good habits	Frequency	Percentage
Hear the adzan directly pray	39	0.06
Tadarus	62	0.09
Dhikr	107	0.16
Not to burden parents	90	0.13
Hang out with smart and pious friends	131	0.20
Make parents happy	246	0.36
Total	675	100

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Conservative Turn or Institutional U-Turn? Explaining Internal Dynamics Of The Muhammadiyah Muslim Organisation In Post Soeharto Indonesia

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Contemporary researches on Muhammadiyah have indicated the emergence conservatism in the leading modernist Muslim association: the eviction of intellectually progressive figures from the central board, and the appointments of the puritans and conservatives in the leaderships. This causes increasing intolerance and polemicist tendencies that hampers its participation in the wider civic and democratic discourses. Some are worry the progressive association will risk to become a radical one. In fact, this syndrome is said to represent the situation of mainstream Muslim groups: the state sponsored MUI which enthusiastically pushing religious doctrines that make public space a religious contestation, and the NU which many regard as the bastion of pluralist Muslims that also witness persecutions against minorities and the emergence of intolerance populist preachers. Informative notwithstanding, such thesis tend to neglect the wider political factor in contributing to the dynamics of Muhammadiyah, and rely on rather essentialist logic. As an alternative, this article argues that what has happened in Muhammadiyah is not a

conservative turn, but rather an institutional u-turn, following ideological schizophrenia and organisational schism during 1985 and 1990 Muktamars, caused by New Order dual policy: repressing political, but supporting social, activisms. The aftermath were various efforts by the Muhammadiyah leadership to recover the organisation's solidness that in a glance looks like increasing conservatism.

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A Statistical Analysis of the Holy Quran in the Digital Era; Case study of Sura An-Nisa'

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Keywords: Quran and ICT, Digital Quran, Analysis of Sura An-Nisa', Statistics of the Quran, Digital Era.

There is no doubt that the Holy Qur'an is the words of Allah that is unchangeable. The most accurate in its verses and words, prodigious in its rules, letters and arrangements that cannot be moved forward or backward, no deletions or additions on it. No falsehood can approach it from before or behind it. It is sent down by One Full of Wisdom, worthy of all Praise. Perhaps this paper, can be seen as a great sea of knowledge. This paper is focuses on Sura An-Nisa' as a case of study and tries to show some impact of Information and Communication Technology toward serving the Holy Quran

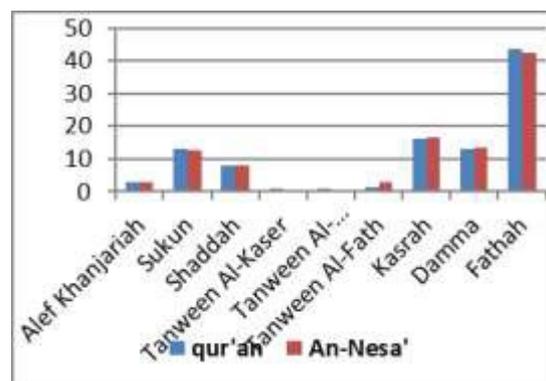


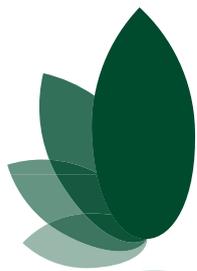
Figure 5. Shows the ratio of repetition of marking signs in Sura An-Nisa' and the Quranic Suras

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(ABS-106)

The Effect of Different Drying Temperature on Crystallinity and Morphology Structure of Bacterial Cellulose

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Keywords: bacterial cellulose, drying temperature, surface morphology, crystallinity

Coconut waste water is very abundant in Indonesia, because Indonesia is one of the world's largest coconut producers, with a production of 18 million tons per year. Bacterial cellulose (BC) can be produced using coconut water using *Acetobacter* bacteria. The aim of this study was to investigate the effect of drying temperature on the crystallinity and morphological structure of BC. *A. xylinum* was grown on coconut water culture medium with addition of sugar (5%), incubation period 7 days at pH 5.

The BC were dried using two drying method i.e. oven at 50°C and 100°C, and room temperature drying

without using oven. The drying was conducted until it achieved 2-6% moisture content. The three different temperatures showed different colour of physical appearance of BC, and the room temperature of dried BC showed the best result of colour. It also gave the different properties of BC based on Scanning Electron Microscopy (SEM) method for evaluating its surface morphology and X-Ray Diffraction (XRD) method for its crystallinity. Therefore, the present work proposed the most suitable drying method can be performed based on the end products desired

(ABS-119)

Factors Influencing in Implementing Rice Farming Conservation on Slope Land

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Keywords: conservation farming, sloping land, rice

Farmers in Pamekasan Regency, especially in Pakong Subdistrict, use sloping land as agricultural land. The farmers generally have implemented conservation rules at different levels. This study aims to examine the factors that influence the application level of rice farming conservation on sloping land. The method used in this study is a questionnaire that concern with the level of conservation application and the factors that influence the adoption level of conservation farming. Meanwhile variables of Conservation farming include making terraces, making infiltration channels, planting terrace reinforcement plants, making water drainage channels and utilizing or

using natural mulch. Furthermore the influencing Factors include land area (X1), farmer's age (X2), formal education (X3), non-formal education (X4), land slope (X5), conservation farming knowledge (X6), knowledge of conservation methods (X7), and knowledge of the importance of conservation (X8). The result showed that 65.38% of the sampled farmers had applied conservation with a high level category. Multiple linear analysis of the factors showed that X4, X5, X7 and X8 had a significant effect on the level of conservation farming implementation for rice plants on sloping land.

(ABS-122)

Identification of Morphology and Molecular PCR-RAPD *Bactrocera* spp. in The Location of Red Guava Crops, Deli Serdang District

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Keywords: *Bactrocera* spp., morphology, molecular, PCR-RAPD

Eight species of fruit flies were found in 5 locations of red guava plantations in District Deli Serdang. Fruit flies were identified morphologically at LIPI. Dendrogram results of Neighbor Joining analysis based on RAPD markers of DNA band characters show the genetic closeness of the eight species divided into 3 clusters. Cluster 1 is *B. caudata* (Kolam and Namoriam) and *B. umbrosa* (Kolam, Namoriam and Sei Mencirim); Cluster 2 is *B. curcubitae* (Sei Beras Sekata), *B. caudata* (Sei Mencirim and Sei Beras

Sekata), *B. umbrosa* (Sei Beras Sekata), *B. carambolae* (Sei Mencirim and Sei Beras Sekata), and *B. papayae* (Kolam, Namoriam, Sei Mencirim and Sei Beras Sekata); and Cluster 3 is *B. kinabalu* (Kolam), *B. carambolae* (Sawit Rejo, Kolam and Namoriam), *B. tau* (Kolam), *B. papayae* (Sawit Rejo), *B. curcubitae* (Sawit Rejo, Kolam, Namoriam and Sei Mencirim), *B. caudata* (Sawit Rejo), *B. umbrosa* (Sawit Rejo) and *B. albistrigata* (Kolam).

(ABS-324)

The Decrease of Agricultural Land and Industry Growth in Daerah Istimewa Yogyakarta

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Keywords: agricultural land area, industry growth, Yogyakarta, change.

Economic development can affect many factors, such as agriculture and industry. These two sectors can significantly affected the economic health. Population growth encourages the employment opportunities to be increased. Industry becomes an area that can provide many job vacancies, but extend the industry is not easy because the side effect often take agricultural land for operation. Industry in Daerah Istimewa Yogyakarta is also growing like in other places. The land is changing from agricultural land to other functions. This phenomenon is gradually increasing year by year. This study aims to analyze the correlation between the industry growth and the decrease of agricultural land.

The data from 2001 to 2016 were analyzed to know the correlation. The results illustrate that there are significant correlations between industry growth and the decrease of agricultural land in Kulonprogo District, Bantul District, Sleman District, and Gunung Kidul District which are known as food production centers in Daerah Istimewa Yogyakarta. Yogyakarta City does not have many agricultural lands, therefore there is no correlation between the industry growth and the decrease of agricultural land area. Therefore develop the industry must consider the land that is used for expansion.

(ABS-352)

Land Suitability Evaluation for Cocoa (*Theobroma cacao* L.) in Gantarang Subsubdistrict, Bulukumba, Sulawesi Selatan

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Keywords: Cocoa Plant, Gantarang Subdistrict, Land Suitability

Gantarang Subdistrict is one of the largest cocoa land areas in Bulukumba Regency, South Sulawesi. However, the production of cocoa plants in Gantarang Subdistrict has not been optimal yet. Therefore, an effort is needed to evaluate cocoa land by establishing land characteristics as a basis for determining the suitability of cocoa plants in Gantarang Subdistrict. This research was conducted using a survey method with the purposive sampling technique through the collection of primary data and secondary data. Data obtained were analyzed using the matching method between land quality and land characteristics as parameters with the criteria of land suitability class.

The results showed that the land characteristics in Gantarang Subdistrict varied greatly. The actual land suitability for cocoa plants in Gantarang Subdistrict at the sub-class level based on FAO criteria differs widely. Based on the sub-class level there are 5 actual land suitability classes, which are S3rc, S3nr, S3na, S3eh, and Nrc. Improvements that can be made include adding organic matter, fertilizing, making terracing and conservation. After the improvement, the potential land suitability classes that can be achieved are S2, S3, and N with the biggest limiting factor is by rooting media factor; the rest is by danger of erosion and land preparation factors.

(ABS-361)

Growth Cuttings of Sirih Merah (*Piper crocatum*, Ruiz and Pav.) in Various Planting Media

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Keywords: Planting Media, Sirih Merah, Cuttings

The research is about The Growth Cuttings of Sirih Merah (*Piper crocatum*, Ruiz and Pav.) in Various Planting Media which was held from November 2016 to February 2017, in the Greenhouse of Faculty of Agriculture, Universitas Muhammadiyah Yogyakarta. This research aimed to determine the best planting media for the growth cuttings of Sirih Merah. This research was carried out by using an experimental method with a single factor, consisting of 9 treatments, and arranged in a Completely Randomized Design (CRD). The treatments were: M1 (Soil + Compost), M2 (Soil + Husk Charcoal), M3 (Soil + Coconut Coir), M4 (Soil + Sand + Compost), M5 (Soil + Sand + Husk Charcoal), M6 (Soil + Sand + Coconut Coir), M7 (Soil

+ Fractional Tile + Compost), M8 (Soil + Fractional Tile + Husk Charcoal), M9 (Soil + Fractional Tile + Coconut Coir). The parameters observed were plant height, number of leaves, number of roots, root length, root fresh weight, root dry weight, shoot fresh weight, shoot dry weight, shoot-root ratio, plant fresh weight, plant dry weight, live cuttings. The data were analyzed using analysis of variance at the 5% level, and mean separations with Duncan's Multiple Range Test at the 5% level. The results showed that the planting media affected the growth cuttings of Sirih Merah, planting media of M2 (Soil + Husk Charcoal) showed the best growth cuttings of Sirih Merah.

(ABS-408)

Soil Chemistry Evaluation and Implementation of Apple Rejuvenation Technology on Dry Land in Batu, East Java

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Keywords: Apple, Soil Amelioration, Rejuvenation, Dry land, Soil chemistry

Apple is subtropical plant that well adapted in several regions in Indonesia. One of them is Batu city in East Java province. Nowadays, Batu city has a problem due to decreasing of apple area land, more than 16 % in the last decade. There are many factors, two of them are plant age and soil condition. Therefore, it was required a research to evaluate soil chemistry and implement apple rejuvenation technology on dry land. This reasearch was conducted from May to December 2015 at five apple areas; Bumiaji, Tulungrejo, Sumbergondo, Punten and Bulukerto. A

survey method was done to address first purpose. Soil sample was taken by purposive sampling method and was analyzed in laboratorium to measure soil characteristics. Laboratorium analysis showed soil metal content very low and under critical value. However, soil pH and organic matter content were not under ideal condition, strong to medium acid and 30 % of area were low organic content (< 2%). Second studied was implementation apple rejuvenation technologies on dry land; high quality seed, simple drip irrigation and soil amelioration.

(ABS-527)

Ethnobotany Study of Jalawure (*Tacca leontopetaloides*) as a Source of Nutrition Quality Improvement on The South Coastal People in West Java

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Keywords: Ethnobotany study, Jalawure (*Tacca leontopetaloides*), West Java

Community income of West Java coastal areas ranging from Pelabuhan Ratu area to the coastal area of Leuweung Sancang in South Garut, West Java is fishing. Their daily life is very dependent on the results of fishing in the sea. Livelihoods like this are highly dependent on the condition of the seasons. This makes the life of coastal communities are often categorized as food insecure communities. The longer dry season than the rainy season adds to the livelihood of the community tends to suffer from food insecurity. Jalawure (*Tacca leontopetaloides*) is one of the plant

species that grows on the coast, has tubers containing a high source of carbohydrates and mineral content which can be utilized by the community to overcome such dry conditions. This research was conducted from 2016-2018 in several villages, namely the coast of Kerta Jaya Village (Sukabumi Regency), Cidamar (Cianjur Selatan, Cianjur Regency), Cikelet, Cijambe, Cigadog, Mancagahar, Pameungpeuk, Leuweung Sancang (Garut Regency), West Java. Ethnobotany study of jalawure is discussed in this manuscript.

(ABS-579)

Physical and Mechanical Characteristics of Edible Film

Based on Lesser Yam (*Dioscorea esculenta* L. Burkill) Starch with Addition of Glycerol and Sodium Tripolyphosphate (STPP)

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Keywords: Edible film, lesser yam, glycerol, STPP

Edible films are thin layers made from hydrocolloids, lipids, and their combinations, functioning as a barrier to mass transfer. The hydrocolloid source that commonly used for edible film is starch. Lesser yam has the potential to be developed into food packaging products. It has a high starch yield (21.4%). The starch properties, which usually obstruct the edible film production are not resistant to high temperature, it produces a starch suspension with viscosity and ability to form a gel is not uniform, cannot stand in acidic conditions, does not resist stirring, limited solubility in water, and starch gel is easy to syneresis and brittle. This study aimed to investigate the effect of glycerol and STPP concentrations on the physical and mechanical edible film. Randomized complete block design (RCBD)

factorial with two factors was adopted. The first factor was glycerol concentration (17.5, 22.5 and 27.5% v/b) and the second factor was STPP concentration (0.1, 0.2 and 0.3% b/v). The parameters tested included thickness, tensile strength, elongation, solubility, transparency, and water vapor transmission rate (WVTR). The results showed significant interaction between the addition of glycerol and STPP to thickness, tensile strength, solubility, transparency, and WVTR. The best characteristics of edible film were produced by the addition of glycerol 17.5% and STPP 0.1% with thickness (0.11 mm), tensile strength (2.03 MPa), elongation (15.38%), solubility (64.44%), transparency (2.88 mm⁻¹), and WVTR (13.27 g/m²/24 hour)

(ABS-596)

The Capacities of Water Jasmine (*Echinodorus palaeifolius*) as Phytoremediator to Reduce Nitrogen and Phosphate Waste of Eel (*Anguilla bicolor bicolor*) Intensive Culture in Recirculation Aquaculture Systems (RAS)

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Keywords: phytoremediation, water jasmine plant, waste water, eel culture, RAS

The study aimed to evaluate the administration of water jasmine plant through increasing the capacity of plants as phytoremediators in reducing the waste of intensive culture eel. This study used a completely randomized design with three treatments of water jasmine plant density and repeated 3 times, as treatments were 1.04 g L⁻¹ (Ep1), 2.08 g L⁻¹ (Ep2), and 3.13 g L⁻¹ (Ep3). The initial average eel weight was 8.3 ± 0.13 g, with a stocking density of 4 g L⁻¹. Culture of eel is carried out in a 50 cm diameter tub and 55 cm high with a recirculation system with water jasmine plants as phytoremediators. Jasmine water is planted in an aquarium measuring 60 cm x 40 cm x 40 cm with a volume of 48 L. A feed paste contain 45.15% protein as much as 4% weight of eel biomass, was given 3 times a day. Culture is carried out for 60 days. The results showed a significant difference in the effect of

water jasmine density on nutrient removal efficiency, also performances on the growth of eel and plant. Plants of *E. palaeifolius* with a density of 2.08 g L⁻¹ had the highest TAN's efficiency removal nutrients, nitrite, nitrate and phosphate compared to density of 1.04 g L⁻¹ and 3.13 g L⁻¹. Nutrient removal efficiency at a density of 2.08 g L⁻¹, id est TAN 46.03±0.63%; nitrite 49.65±4.52%; nitrate 59.62±1.89% and phosphate 60.88±1.03%, respectively. At a water jasmine plant density of 2.08 g L⁻¹ produced the highest specific growth rate of eel (0.99 ± 0.02%) the lowest feed conversion (1.97 ± 0.03), and the highest increasing of water jasmine plant biomass (262.33 ± 2.60 g with a daily growth of 4.37 ± 0.43 g day⁻¹). Thus, it can be concluded that the density of water jasmine plant 2.08 g L⁻¹ produces the best nutrient removal efficiency, the growth performance of eel and plant.

(ABS-598)

Physic-Mechanical Properties of Edible Film Based on Taro Starch (*Colocasia esculenta* L. Schoott) With Glycerol Addition

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Keywords: taro starch, glycerol, edible film

Food packaging has substantial roles, such as product protection from microbial contamination, chemical pollution and physical harm. While environmental pollution caused by plastic packaging become concerning, hence there are innovation to produce films that are convenient to decompose. Edible film is a thin layer that serves as food protector, and barriers to the transfer of mass, such as water vapor, and oxygen. Taro tuber is one of the potential raw materials, which has high starch content. While the most edible films that made from starch have deficiencies alike high fragility, therefore plasticizers need to be added. Glycerol addition is more efficient in improving physical and mechanical properties such as tensile strength and elongation, because it improve flexibility, strength to against physical damage, and better transparency. This study aimed to determine the

concentrations of taro starch and glycerol effect on edible film physics-mechanical properties The study was conducted using factorial randomized complete block design (RCBD) with two factors and 3 replications. The first factor was taro starch concentration (2, 2.5, and 3%) and the second factor was glycerol concentration (25, 30, and 35%). The results indicated that there were interaction between taro starch and glycerol concentration to the parameters of tensile strength, elasticity, solubility, WVTR and transparency. Moreover, the best combination treatment was 3% taro starch and 25% glycerol, with characteristics of thickness (0.15 mm), tensile strength (10.63 MPa), elasticity (60.21%), solubility (23.48%), WVTR (25.37 g/m²/24 hours) and transparency (2.23 mm⁻¹).

(ABS-632)

Genetically Engineered Cassava Expressing Arabidopsis Scopolin-beta-Glucosidase Show Delayed Postharvest Deterioration

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Keywords: Plant biotechnology, cassava (*Manihot esculenta* Crantz), genetic engineering, postharvest deterioration, scopolin

Rapid postharvest deterioration of cassava (*Manihot esculenta* Crantz) root known as postharvest physiological deterioration (PPD) is a major problem to the utilisation and development of cassava as a food and commercial commodity. De-glucosylation of scopolin by the action of scopolin-beta-glucosidase (scopolin-BG) releases scopoletin, a major component that plays a central role in cassava root deterioration, under stress conditions. However, an understanding of how this pathway contributes to root deterioration development remains undefined. We first investigated the diversity of scopolin-BG gene in cassava and manipulated the de-glucosylation of scopolin pathway via over-expression of a scopolin-BG gene, BGLU23,

from Arabidopsis. We found that cassava scopolin-BG is encoded by multiple genes, most of which belong to glycosyl hydrolase family-1 (GH1). Scopoletin and scopolin were detected at low levels in fresh roots of transgenic cassava, but their accumulation was significantly increased at day 2, accompanied by the upregulation of BGLU23. Although it appears that de-glucosylation of scopolin does not play a crucial role in the accumulation of scopoletin in cassava, some BLU23-expressing transgenic cassava showed significantly delayed PPD compared to wild type control. This study has improved our understanding of biochemical pathway involved in PPD and provided alternative way to tackle this problem.

(ABS-695)

The Effectiveness of Lime in Controlling Red Scale (*Aonidiella aurantii*) on Apple Trees

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Keywords: apple, lime, red scale

Apple has high economic value and contains high vitamins. One of the causes of the decline in apple production is plant disturbing organisms. Red scale (*Aonidiella aurantii*) is one of the most important pests in apple. The losses caused by the scales are disruption of production and growth processes, even leading to plant death. The effectiveness of lime in controlling red scales (*Aonidiella aurantii*) on apple trees was carried out in the experimental garden of Indonesian Citrus

and Subtropical Fruit Research Institute from March to June 2017. The treatment tested is the lime concentration with 6 levels of 10%, 20%, 30%, 40%, 50 %, and control. The treatments were arranged using a Randomized Block Design with 3 replication. The test results showed that lime of 50% concentration applied by spraying on the stems of apple trees effectively suppressed the development of red scales population with an average population of 3/10 cm.

(ABS-704)

The Growth and The Yield of Various Local Rice Varieties with System of Rice Intensification Irrigation System

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Keywords: intermittent irrigation, local rice variety, conventional irrigation

An Intermittent irrigation in the SRI (System of Rice Intensification) method of rice cultivation, among others, aims to reduce water requirements. In Indonesia it is well known and has been applied to various local rice varieties, both superior and local rice, but local rice varieties have the potential to produce high-yielding rice with the SRI method to meet food needs in Indonesia. However, not many research have been carried out. The study about The Growth and The Yield of Various Local Rice Varieties with System of Rice Intensification Irrigation Method aims to determine the suitability of intermittent and continuous flooding irrigation techniques on local rice varieties and to study the response of various local rice varieties to the growth and yield of rice crop.

The research has been conducted on the experimental field of the Faculty of Agriculture, UMY, which aims to determine the responses of various local rice varieties with intermittent irrigation. The method used was the experimental method carried out with pot research with an 7 x 2 factorial design of the treatment arranged in a completely randomized design with 3 replications. The first factor was rice varieties which consist of 7 varieties, i.e. Mentik Susu (V1),

Pandanwangi (V2), Mentik Wangi (V3), Rojolele Gepyok (V4), Rojolele Genjah (V5), Segoro Anak (V6), and Ciherang (V7). The second factor was the method of irrigation consisting of 2 levels, i.e. intermittent irrigation SRI (A1), and continuous flooding (A2). Data analysis was performed with analysis of variance at $\alpha = 5\%$. If there was significant difference in the treatments, further testing with Duncan's Multiple Range Test at $\alpha=5\%$ would be conducted.

The results of the study illustrates that the treatment of varieties influences the growth and the yield. Irrigation treatment indicates an influence on the fresh weight of plants and rice yields, while the dry weight of rice is not affected. The growth of the number of 12th week old productive tillers shows significant interaction between varieties and irrigation. In the treatment of Ciherang and Segara Anak Varieties, SRI irrigation produces more number of productive tillers than conventional irrigation. In Mentik Wangi, Pandanwangi and Rojolele Genjah varieties, SRI method shows the same effect as conventional irrigation.

(ABS-751)

Detection of Promoter Designed for Transgenic Plant in Local Soybean

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Keywords: Consumer Right, Genetically Modified Organism, Local Soybean, Promoter of CaMV

Potential risk of allergenic, toxic, and dietary risks from Genetically Modified Organism (GMO) has become critical issues. The transgenic soybean of United States has commonly been exported to countries around the world, including Indonesia. Unfortunately, there has not yet been any label given to packaging product of Genetically Modified Organism (GMO) including soybean grain sold in Indonesia. The aim of the study was to detect promoter

of Cauliflower Mosaic Virus (CaMV) 35 S which potentially indicates of transgenic gen of soybean in order to help Indonesia—implement government regulation on label and food advertisement and fulfill consumer right. The result indicated that the local soybean also contained this promoter of transgenic soybean by using Polymerase Chain Reaction (PCR) method.

(ABS-824)

The Mocaf Flour Characteristic Test of Different Varieties of Cassava in Gunung Kidul

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Keywords: Cassava, Characteristic, Varieties, Mocaf

Cassava is one of the main crops developed in Gunung Kidul used as local staple food. There are various varieties of cassava cultivated, but the characteristic remains unknown. Hence, the need of further investigations about the characteristics of each variety nutrient content and physical properties emerge in order to determine the success of Mocaf (Modified cassava flour) production.

This study was conducted using Completely Randomized Design (CRD) consisting of 5 varieties tested, namely Kirik, Gambyong, Jawa, Gatotkaca, and Bamban. Tuber harvested from a 9-months-aged cassava plant were measured for various nutrient

contents (protein, ash, starch, fiber, fat, carbohydrate, HCN) and physical properties (tuber color, organoleptic, viscosity, and moisture content).

The physical properties and nutrient contents contained in the tuber varies among varieties. Cassava variety exhibiting the best quality and characteristic among all tested varieties for mocaf production is Bamban. The tuber of this variety has white color (91.53) and contain 18.10 ppm HCN, 77.84 % starch, 1.11 % protein, and 9.04 % dietary fiber. However, these characteristics still had not yet met the national standards of Indonesia.

(ABS-832)

The Physicochemical Properties of Purple Sweet Potato Flour Fortified with Legumes

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Keywords: fortification, purple sweet potato, legume, physicochemical.

The popularity of purple sweet potato continues to increase annually. Natural sweetness, attractive color, and high antioxidant were alleged as the main allurements of its products. Nevertheless, there are some lacks on the nutritional properties of purple sweet potatoes, such as low in protein and lipid. This shortcoming could lead to a serious malnutrition problem if there is no nutritional complement from another source. In this condition, fortification could serve as a strategy that addressed to improve the nutritional value of sweet potato products. As a source of protein and bioactive compounds, legumes are potential to be a carrier on the fortification process. This study was aimed to determine the

physicochemical properties of sweet potato flour fortified with legumes. A completely randomized design with four fortification treatments was used, i.e. soybean, mungbean, cowpea, and without fortification as a control treatment. The results showed that among other legumes, soybean is the most effective carrier on fortification of sweet potato flours. Purple sweet potato flours that were fortified with 10% soybean have the highest nutritional properties, specifically protein (8.65%), lipid (3.02%), and amylose (32.09%). Legume fortification would also reduce the carbohydrate fraction and generated darker colors in the sweet potato flours.

(ABS-952)

Foliar Application of Cattle Bone Ash in Increasing Growth and Production of Sweet Corn (*Zea mays saccharata* L.)

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Keywords: Phosphorus; Fertilizer; Resize Particle

Cattle bone ash contains high calcium and phosphorus that can be used as foliar fertilizer. The foliar application requires that the particle size must be smaller than the stomatal size. The study is expected that by applying cattle bone ash to sweet corn through foliar application can increase the growth and the production of sweet corn. The experiment was conducted in a complete randomized design with five treatments: there are without cattle bone ash application, 0.1%, 0.2%, 0.3%, and 0.4% of cattle bone ash concentration. Cattle bone ash dominated with particles smaller than stomatal size and contains high calcium, oxygen and phosphorus with little of sodium and magnesium. The result showed that 0.3% application

of resize cattle bone ash could enhance leaves area, root dry weight, ear weight, 100 kernels weight, and net assimilation rate.

(ABS-833)

The Performance of Shallot (*Allium cepa* Var. *Ascalonicum*) Derived from True Seed Under Dry Condition of NTT Border Area^{*})

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Keywords: shallot, border area, true seed shallot (TSS), productivity

To reduce the dependence of bulbs as planting material, the technology innovation of shallot (*Allium cepa* var. *ascalonicum*) cultivation was tried by using true shallot seed (TSS) as planting material with a dense planting system. Four true seed varieties were planted at low and dry land of Malaka District, NTT Province, Indonesia. This district is one of the border areas between Indonesia and Democratic Republic of Timor Leste, where the conditions of its farmers have not yet mastered on the technology of planting shallots using this method. The research was conducted in Laleten Village, Malaka District, from April to December 2018. Randomized block design with four treatments of TSS varieties and three replications was used. TSS seedlings were planted with a 10x15 cm planting spacing, so that a 30 m² size plot contained 2,000 plants. The analysis of variance showed significant difference among the treatments at $p < 0.05$. The aim of this research was to examine the method of planting shallots by using TSS as planting material in areas where farmers have never carried out such technology. The results showed that the growth of plant height in Bima Brebes, Trisula, Tuk Tuk and Sanren varieties until the age of 6 weeks after transplanting (WAT) was not significantly different,

with an average height was reaching 40-46 cm and the number of leaves was 10-11. Percentages of plants that developed and produced normally range from 70-75% of the total population, which the highest was Trisula. The average bulbs number plant⁻¹ in Bima Brebes variety was 3.1 and significantly different from Tuk Tuk (1.6). This may due to its genetic characteristic, which 97% of Tuk Tuk bulbs performance were being single, whereas in Bima Brebes the single and splitting-to be two bulbs were reached 48.2% and 46% respectively. The number and fresh bulbs weight bed⁻¹ ranged from 2,293 – 4,601 bulbs and 19.8 – 31.5 kgs which the highest and lowest amounts were in Bima Brebes and Tuk Tuk respectively. Weight loss after 3 months of storage was significantly different between varieties, which reached 48-65%, and driest bulbs was Tuk Tuk. In this area, the estimated of fresh weight bulbs production per hectare reached only 5.28 and 6.05 tons for Tuk Tuk and Sanren, while the rest were 8.41 and 7,97 tons for Bima Brebes and Trisula respectively. It means that in the dry conditions with farmers who have not mastered yet on the technology of shallot cultivation by using TSS as planting material, the productivity of these plants only reaches 20-40% of their optimal production capacity.

(ABS-840)

Application of Geographic Information System for Mapping of *Hevea brasiliensis* and *Aquilaria malaccensis* Land Suitability at Simpang Kuta Buluh

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Keywords: Agroforestry, *Aquilaria malaccensis*, *Hevea brasiliensis*, GIS, Land suitability

Hevea brasiliensis and *Aquilaria malaccensis* were planted by the community because of its high economic value. The suitability land of *Hevea brasiliensis* and *Aquilaria malaccensis* in North Sumatra Province are important, especially in the agroforestry land that are often planted by the community. This study aimed to map the suitability of the land for *Hevea brasiliensis* and *Aquilaria malaccensis* in Simpang Kuta Buluh village, Sei Bingai Sub District, Langkat District, North Sumatra, Indonesia. The survey method was conducted to collect soil samples in the field. Land suitability classification (LSC) for *Hevea brasiliensis* and *Aquilaria malaccensis* was evaluated based on the matching

method. The Geographic Information System (GIS) was used to map the land suitability both actual and potential land suitability. The results showed that the actual land suitability classes for *Hevea brasiliensis* in Simpang Kuta Buluh Village were moderately suitable (S2) (52,91%) and marginal suitable (S3) (47,09 %). The actual land suitability classes for *Aquilaria malaccensis* in Simpang Kuta Buluh Village also the same with *Hevea brasiliensis*, namely: S2 and S3. There were several limiting factors in land suitability evaluation in the area. The limiting factors for *Hevea brasiliensis* namely: temperature (tc) and root zone medium (rc). The limiting factors for *Aquilaria malaccensis* namely: root zone medium (rc).

(ABS-874)

The Effects Sodium Tripolyphosphate Towards The Characteristics of Karak

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Keywords: Rice, Karak, STPP

Karak is a dry food product made from rice which is generally processed conventionally with the addition of salt and the form of borax as an ingredient. In order to produce Karak that is safe to be consumed and can be produced in a conventional way, research on the production of borax-free Karak using additional ingredients in the form of STPP (Sodium Tripolyphosphate) as an ingredient is conducted. The purpose of this research is to identify the effects of STPP addition towards the sensory, chemical, physical, and yield characteristics. This study used Complete Randomized Design of one factor, the concentration of

STPP consisting of 0.5% (K1), 0.6% (K2), and 0.7% (K3) and baking soda as control. The data obtained were analyzed using one way ANOVA method and Duncan's Multiple Range Test (DMRT). The results show that the addition of STPP has several effects on the sensory, chemical, physical, and yield characteristics of the Karak produced. The best formula produced by the weighted test is 0.5% STPP (K1) formula. The K1 formula has the most preferred taste, texture, and overall by the panelists, the lowest moisture content, the highest development power, and also the lowest hardness and the highest yield result.

(ABS-862)

Test of Concentration and Dosage of Fruit Organic Waste Extract on The Growth and Yield Of Broccoli (*Brassica oleracea*) Plants

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Keywords: broccoli, fruit, dosage, concentration, waste, organic

Broccoli (*Brassica oleracea*) has a prospect to be developed in Indonesia because it is a source of vitamin A, B complex, C, ascorbic acid, thiamin, riboflavin, calcium, iron, and minerals essential for the fulfillment of human nutrition. Organic waste that has undergone a fermentation process can be used by plants as liquid organic fertilizer and at the same time can be utilized by plants as a stimulant to grow. The aim of the study was to examine the relationship of the dose and concentration of extract of fruit organic waste to the growth and yield of broccoli. The research was carried out on the integrated land of the Faculty of Agriculture-Animal Husbandry, Muhammadiyah University of Malang from February to May 2018. The study was a factorial experiment arranged in a randomized block design and repeated 4 times. The

first factor is the concentration of fruit organic waste extract, namely K1: 50 cc / l; K2: 100 cc / l; K3: 150 cc / l. The second factor is the dose of fruit organic waste extract, namely: D1: 50 ml /plant; D2: 100 ml /plant. Observation parameters include plant height, number of leaves, stem diameter, flower diameter, flower weight, wet weight, dry weight. Data were analyzed using Fisher's test, then tested using BNJ 5% test. The results showed no interaction between the concentration and dosage of fruit organic waste extract on the growth and production of broccoli plants. There is a positive correlation between each observed variable. The best concentration of fruit organic waste extract is 100 cc / l. The best dose of fruit organic waste extract is 50 ml /plant.

(ABS-964)

Variation of Seed Vigour in New UNPAD Sweetcorn Lines after storage

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Keywords: differentiation; seed vigour; diversity

Seed vigour is more sensitive compared to the germination test and usually it is used to observe the ability of seed germination at a sub-optimum area and seed longevity. The variation among cultivar in seed vigour could be useful for the breeding program to develop a new cultivar. In this study, we used thirteen of new UNPAD sweetcorn lines and three SR lines to evaluate variation of seed vigour after storage among these lines. The results showed that these lines differentiated into two major groups using clustering analysis based on seed vigour (vigour index, electrical conductivity and normal dry weight seedling)

parameters. The first group consisted of eight new UNPAD sweetcorn lines and the second groups consisted of five new UNPAD sweetcorn line and three SR lines. These result indicated that the new UNPAD sweetcorn line have a new genetic constituent. Besides, the result revealed that the new line which grouped with SR lines was higher on the vigour index and normal dry weight seedling parameter after 4 months storage than the other group by Students test. These result suggested that these lines could be useful for the breeding program to develop new cultivar with high seed vigour.

(ABS-946)

The Potency of Biofertilizer to Control Damping Off Disease and Stimulate Plant Growth on *Japansche citroen* Seedling

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Keywords: Biofertilizer, damping off, seedling, *Japansche citroen*

Damping off is one of the diseases caused by soil-borne pathogens resulting in the death of seedling in a short time. Control of this disease is quite difficult. The study aimed to examine the potential of biofertilizers and the time of application to damping off disease intensity and plant growth on *Japansche citroen* seedling. This study used a Factorial Completely Randomized Design with two factors: 1). Biofertilizer namely AzzoFor (P1), liquid biofertilizer (P2), secondary metabolite *Trichoderma asperellum* (P3), the mixture of three biofertilizers (P4), and control (P5), 2). The time of application, namely the treatment of biofertilizers first then followed by the inoculation of *F. oxysporum*. (A1) and the treatment of *F. oxysporum*. first followed by

treatment of biofertilizer (A2). The results showed that the lowest disease intensity was found in A1P3 treatment (0%), while in control reached 41.3%. The treatment of A1P2, A2P1, A2P2 and A2P4 showed the same disease intensity. The highest disease control effectiveness found in A1P2, A1P3, A2P1, A2P2 and A2P4 treatments and this was significantly different compared to A1P4, A2P3 and control treatments. The most significant percentage of seeds germinate at 21 DAS was shown in A1P1 treatment (26.7%) and A2P3 treatment (25.3%), while after 28 DAS, it was in A2P4 treatment (73.3%). The lowest plant height at 28 DAS was A1P4 treatment and control. Biofertilizer is useful for controlling the damping-off disease if applied separately.

(ABS-963)

Seed Vigour of Mutant and Non-Mutant in UNPAD Sweetcorn Lines after Storage as Revealed Using Direct and Indirect Methods

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Keywords: sweetcorn; seed vigour; indirect test

Seed vigour evaluation is important as one of seed quality parameters to meet the farmers demand. The direct and indirect methods could be used to test the seed vigour. Even though, the different population cultivar may show a different response when vigour test. Therefore, the accurate method is needed. In this study, we used UNPAD Mutant (one population) and Non-Mutant (two populations) sweetcorn lines to determine the characteristics of vigour among populations after 2 months storage using direct (vigour index and normal dry seedling) and indirect (electrical conductivity) methods. The results showed that there were significant difference among populations (Student's test) on

electrical conductivity parameter at 0 month and normal seedling dry weight parameter at 2 months after storage. Besides, we found the significant correlation between vigour index and electrical conductivity at 0 month and between normal seedling dry weight and vigour index at 2 months after storage. We assumed that the significant correlation between two parameters in this study due to the significant difference among populations at the time of measurement. These results suggested that among populations have different vigour characteristic. The electrical conductivity and normal dry weight seedling were an important approach to investigate seed vigour.

(ABS-1078)

Growth and Production of Shallots (*Allium ascolanicum* L.) by Application of Vermicompost and Liquid Organic Fertilizer of Lamtoro Leaves

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Keywords: Lamtoro, Liquid Organic Fertilizer, Shallots, Vermicompost

Support for sustainable agriculture is to utilize organic fertilizer. Organic fertilizers which are currently widely used are organic fertilizers from organism faeces and plant materials as well as in this study. The aim of this research was to determine the response of the vermicompost organic fertilizer and Liquid Organic Fertilizer leaves of Lamtoro to the growth and production of Shallot. This research used a Randomized Block Design (RBD) consisting of two factors. The application of Vermicompost (K) consisted of four levels, 100, 200 and 300 g/polybag. The second factor is the Application of Lamtoro leaf liquid organic

fertilizer (P) consists of four dosage levels: 0, 100, 200 and 300 ml/polybag. The results showed that the application of vermicompost organic fertilizer showed a significant effect on all parameters studied except for the parameters of the number of tillers. Whereas, the application of Liquid Organic Fertilizer of Lamtoro leaf showed no significant effect on all parameters observed. Furthermore, there was no interaction of the application of Vermicompost organic fertilizer and Liquid Organic Fertilizer of Lamtoro leaf on the growth and production of shallots.

(ABS-1056)

The Compatibility and Effectivity of A Variety Of Mycorrhiza Sources With Cassava Varieties In Gunungkidul

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Keywords: mycorrhizal sources, local cassava varieties of Gunung Kidul

Gunung Kidul is the centre of cassava production. However, due to its Mediterranean soil type, it is regarded as a non-fertile soil as it was formed from the decay of limestone, has low organic matter, dry texture, brittle, and pH value of neutral to basic. Mycorrhizal inoculation is known to increase plant production, however, the effectivity is affected by the plant variety and mycorrhizal sources. This study aims to understand the interaction between various mycorrhizal sources and three local cassava varieties of Gunung Kidul, specifically on their compatibility, population, mycorrhizal diversity, and their effect on cassava growth. The experiments were conducted based on Completely Randomised Design (CRD) with experimental factors using three treatments in triplicates. The experimental factors included three cassava varieties (Mentega, Kirik, and Ketan) and various sources of mycorrhiza (indigenous Mediteran soil of Gunungkidul, the rhizosphere of pandan plants of Bugel beach, and

commercial mycorrhizal inoculant). The results demonstrated that among the interactions of various mycorrhizas with three local cassava varieties of Gunung Kidul, the highest infection was seen from Mentega variety inoculated with indigenous mycorrhiza of the Mediterranean soil of Gunung Kidul (95%). The mycorrhizal population yielded 39-98 spores/100g. Mycorrhizal diversity using indigenous mycorrhiza of Mediteran soil was higher than mycorrhiza of pandan rhizosphere and commercial inoculant, and the dominant mycorrhiza type was of spores belonging to genus *Glomus*. On the other hand, the indigenous mycorrhiza of Mediteran soil inoculant on various cassava varieties demonstrated similar effect as it resulted in the same number of spores, root length, and plant dry weight; despite the fact that on Kirik variety growth, the significant difference was observed on the plant height, leaf number and fresh plant weight.

(ABS-1091)

Revealing the Proteomic Profiles of Antianthraxnose-Related Proteins in *Serratia plymuthica* UBCR_12

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Keywords: *Colletotrichum gloeosporioides*, carbon, nitrogen, antifungal, quorum-sensing.

The capacity of *Serratia plymuthica* UBCR_12 in suppressing anthracnose causal agent, *Colletotrichum gloeosporioides* is regulated molecularly through protein expression. Regarding its suppression, the efficacy of this antianthraxnose bacteria is greatly affected by various environmental factors, particularly the presence of bacterial main nutrients (carbon and nitrogen). This study was aimed to investigate the expression profile of antianthraxnose-related proteins in *S. plymuthica* UBCR_12 under different modified medium. Antagonistic activity of this bacteria against *C. gloeosporioides* was assessed using agar spot method in PDA medium supplemented with several concentrations of peptone or glucose. Pathogenic fungi-bacteria co-culture was performed under the same condition as an antagonistic assay to induce the extracellular proteomes expression related to this antianthraxnose trait. Proteome

profiles were visualized using SDS-PAGE and 2-DE, then a highly differential protein spot was further analyzed using MALDI-TOF-MS. Prediction of protein classification and possible hypothetical pathway were performed in-silico. The highest suppression (42.3% at 9th-day post application) resulted in 2% glucose-supplemented medium, however 2% peptone-supplemented medium conferred a quicker suppression (at 5th-day post application) with quite lower inhibition efficacy (40%). Differential expression of 42 kDa protein band recorded during peptone addition was predicted to be flagellin protein, which might correlate with a rapid stimulus of suppression activity. This protein involved in the quorum-sensing mechanism by triggering the greater rate of cell division resulting in bacterial colonization and motility approaching the fungal pathogen.

(ABS-1110)

The Distance of Agricultural Land from Natural Habitat Affects The Functional Trait Diversity and Species Diversity But Not Abundance of Hymenoptera Parasites

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Keywords: non-crop habitat, parasitoid, species richness, tropical region.

In agricultural landscapes, natural habitat may enhance species diversity or the abundance of natural enemies in arable lands, and thereby suppress pest populations effectively. However, there is a lack of studies in Tropical regions about these interactions. The aim of this study was to investigate the community structure of Hymenoptera parasites at two distances (< 200m and > 400 m) from edges of natural habitat to cucumber fields. This research was carried out in twelve cucumber fields in West Java, Indonesia. Hymenopteran parasites were collected by yellow pan trap and hand picking of parasitized lepidopteran larvae. In total, 19

family and 130 parasitoid species, comprising 19,167 individuals, were collected in our experiments. A number of 56 (43.1%) hymenopteran parasites species found only in cropping with a certain distance away from the natural habitat. Of these, as many as 39 species (69.6%) hymenopteran parasites found in cucumber fields within close natural habitats, while the crop is being of natural habitats found 17 species (13.1%). Moreover, the functional diversity of hymenopteran parasites tends to increase on cropland closed to natural habitat. We conclude that distance of agricultural land to natural habitat affect hymenopteran parasites.

(ABS-1119)

Effectiveness of The Clove Formula Nano Biopesticides on The Mosaic Virus and The Economic Feasibility Study

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Keywords: *Pogostemon cablin*, nano viruside, virus mosaic, economic feasibility analysis

This study was conducted with Randomized Block Design (RBD) with 5 treatments of 10 replications and each replication of 100 plants. The results obtained showed that the efficacy of nano biopesticide citronella, clove, and commercial citronella (Asimbo) formulas on the intensity of mosaic disease compared to without treatment were 14.68%, 9.06%, and 5.83%, respectively. While the intensity of attack of patchouli leaf rollers were 38.03%, 35.21%, and 0% consecutively. The efficacy of chemical insecticides on aphids attack was 32.39%, not different from the nano biopesticide citronella and clove formula. The yield loss of Patchoulina 2 variety ranged from 5.14 to 14.96%.

Levels of patchouli alcohol >30% (see SNI standard of quality) but oil yield <1. Nano biopesticides of cloves have the potential as biopesticides to control plant viruses. The economic feasibility analysis shows that the level of application of clove nano biopesticide formula technology and formula of citronella (Asimbo) in patchouli farming is feasible, where the results of NPV are Rp 11.073.825,37 and Rp 6.519.576,86 with IRR are 52,74% and 37,04%, Net B/C Ratio are obtained at 3.00 and 2.34 and profitability ratio is 1.68 and 1.27, which means that the level of net profit received is greater than 160%.

(ABS-1132)

Rapid and Non-Destructive Prediction of Total Soluble Solids of Guava Fruits at Various Storage Periods Using Handheld Near-Infrared Instrument

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Keywords: Fruit quality, intact fruit, non-destructive measurement, rapid prediction, spectroscopy.

Guava fruit is one of the most popular horticulture products because it has various health benefits. Once fruit is harvested, the fruit is still carrying out the respiration process during storage which results in changes in physical and chemical properties. One of chemical properties that is concerned by consumers is the total soluble solids, which explain the rough sugar content. The study examined the use of handheld near-infrared instruments to predict the total soluble solids of guava fruit at various storage periods rapidly and non-destructively. The research method used in this study

was multivariate data analysis. Spectra pre-treatments were applied to correct the spectra and increase the accuracy of prediction. Calibration model was done by partial least squares regression (PLSR) and principal component regression (PCR). The results showed that the use of handheld near-infrared instrument was able to predict the total soluble solids of guava fruit with high accuracy. The best calibration model was produced by PLSR calibration method integrated with orthogonal signal correction (OSC) spectra pre-processing technique.

(ABS-1167)

Antifungal Yeast Fruit Coating Innovation to Maintain Postharvest Strawberry Quality

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Keywords: Edible coating; antifungal yeast; *Debaryomyces hansenii*; strawberry postharvest.

Postharvest strawberries have a relatively short shelf life and the quality of fruit is rapidly declining, especially with a history of high gray mold fungus attacks during cultivation in the garden. The attack rate of fruit rot is high in the garden, causing the surface of strawberries to be colonized by pathogenic spores which results in strawberries becoming susceptible to postharvest disease. One of the main diseases of postharvest strawberries is gray mold rot caused by *Botrytis cinerea*. Fruit coating is one of the innovations used to extend shelf life and maintain the quality of fruit stored at room temperature. Coating of fruit with natural

ingredients is still little researched, especially made from yeast.

The aim of the study was to determine the effectiveness of coating postharvest strawberries with antifungal yeast at various levels of maturity on the quality and shelf life of strawberries. The results showed coating strawberries with yeast *Debaryomyces hansenii* was able to maintain the quality of the fruit, increase the shelf life of the fruit, and protect the fruit from the attack of postharvest pathogens with parasitism mechanism, without reducing the quality of fruit, so that it can be applied after the harvest of strawberries.

(ABS-1165)

Detection of Primary Metabolites on Vermicompost in Raw Materials of Soybean Husk Waste and Cow Manure

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Keywords: *vermicompost*, soybean husk, cow manure, GC-MS

Waste of soybean husk seeds (SHS) is very potential organic waste to be used as organic fertilizer through *vermicomposting* techniques. To find out the potential, it is necessary to characterize the *vermicompost* metabolites produced, because by detecting metabolites it will be useful in studying the profile and its metabolic pathway. Gas Chromatography-Mass Spectroscopy (GC-MS) is used to detect metabolites because it is a powerful tool in characterizing *vermicompost*. The purpose of this study is to detect *vermicompost* metabolites made from raw materials of SHS waste and combination with cow manure. Thus, further information obtained can be used as a recommendation in handling SHS waste specifically as organic fertilizer through *vermicomposting* techniques.

The study of *vermicomposting* was conducted using Randomized Block Design (RBD) with 5 treatments and

5 repetition. The treatment details are: V₁: SHS waste (100%), V₂: cow manure (100%), V₃: SHS waste: cow manure (50%: 50%), V₄: SHS waste: cow manure (75 %: 25%) and V₅: SHS waste: cow manure (25%: 75%). Data were analyzed using GC-MS and Honestly Significant Difference (HSD) test.

Based on the analysis using GC-MS in all treatments (V₁-V₅), there were detected metabolites classified as primary metabolites, consisting of: seven sugar compounds, 20 amino acid compounds, nine vitamins, three hormones and 43 organic acids. The treatment showed an increase in the chromatogram start of treatment V₁-V₅, and this result is directly proportional to HSD test where V₅ treatment also showed the highest total curve.

(ABS-1220)

Redevelopment Strategi of Sambas Orange

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Keywords: SWOT, Siam, Marketing, Citrus Centre, agriculture

This research aimed to investigate the best redevelopment strategy of Sambas Orange. The fruit was the icon of Sambas Regency. The damaged Sambas orange plants were caused by some factors such as its trade system. There are many farmers who are growing the orange. They are expecting that the fruit become the icon of the place so that it can increase their welfare. This research was conducted in 2018 in Tebas District, Sambas Regency, the center of Siam orange plantation. The sampling was through two stages. The first stage

was determining the sample of village through purposive sampling; Segarau Parit was chosen for its large area and high production number. The second stage was determining the sample of farmers through random sampling. SWOT analysis was implemented. The result of research revealed that the required strategy was aggressive Growth-Oriented Strategy.

(ABS-1185)

Application of RAPD Markers to Analyze Genetic Diversity Among Date Palm (*Phoenix dactylifera* L.) Genotypes

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Keywords: date palm, genetic diversity, RAPD marker

Date palm cultivation can be done generatively and vegetatively. Tissue culture is one of the techniques used for vegetative date palm cultivation. The weakness of this technique is the presence of genetic variations in the results of propagation through tissue culture known as somaclonal variation. One type of molecular markers commonly used for variations in genetic variation is RAPD (Random Polymorphic Amplified DNA) markers. The aim of the research was to analyze genetic variation of Date Palm genotypes using three RAPD primers - OPD-13, OPD-20, and OPO-16. This research is

conducted by taking 8 genotypes from tissue culture propagation and 2 genotypes from seed propagation. Calculation of distance matrix or genetic inequality is done by two types of descriptive analysis of diversity such as Principal Coordinates Analysis (PcoA) and Neighbor-Joining Tree (NJtree) using DARwin 6.0 software. Based on the cluster analysis, 10 samples of date palm group into three major groups with a total of molecular diversity was 83.11%, The range of dissimilarity coefficient was 0 – 0.6.

(ABS-1191)

Bacteria Analysis as Plastic Biodegradation and Biofertilizer

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Keywords: biodegradation, biological fertilizer, phytohormone, Gass Chromatography-Mass Spectrophotometry, Plastics

The results of previous studies have obtained several bacteria that are tolerant of plastic waste. However, its ability has not been tested as biodegradation of plastic and biological fertilizers. Therefore this research is intended to test the potential ability of these bacteria as biodegradation of plastic waste and as biological fertilizer by using Gas Chromatography-Mass Spectrophotometry (GC-MS). GC-MS analysis results on SP6 isolates as plastic-tolerant bacterial models, have obtained 5 specific secondary metabolites which act as biodegradation of plastic with the composition: Malic acid (*C4H6O5*) 1.85%, Xanthine (*C5H4N4O2*) 1.08%,

Myo inositol (*C6H12O6*) 1.32%, γ Glutamyl alanine (*C8H14N2O5*) 0.85% and Ribitol 5 phosphate (*C5H13O8P*) 1.30%. In addition, the isolate was also able to synthesize several phytohormones with the composition: α Aminobutyric acid3 (*C4H9NO2*) 1.20%, Indoleacetic acid (*C10H9NO2*) 1.85%, Kinetin (*C10H9N5O*) 1.19%, Kinetin glucoside (*C16H19N5O7*) 1.19 % and Benzyladenine 9 glucoside N6 (*C18H21N5O5*) 1.31%, thus the bacterium has a double potential, besides being able to degrade plastic, it also has the potential as a biofertilizer.

(ABS-1200)

Diversity of *Bactrocera* spp. on Some Mango Varieties at Kecamatan Talun, Kabupaten Cirebon

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Keywords: low diversity, fruit fly species, species dominance

Fruit fly (*Bactrocera* spp.) is a major pest of horticultural crops, especially fruits. Fruit fly larvae feed on the flesh of fruit, and cause the decrease of both quantity and quality of the production. Fruit fly species on certain fruit in an area need to be identified to make right decision in choosing the control methods. The objectives of this study were to identify the fruit fly species, and determine the dominant species and diversity index of fruit flies on mangoes Gedong Gincu, Cengkir, and Arumanis at Kecamatan Talun, Kabupaten Cirebon, Indonesia. The survey was carried out by taking

samples of mango fruit attacked by fruit flies from field, wholesaler, and retailer at Kecamatan Talun. The results showed that there were four species that attack mangoes Gedong Gincu, Cengkir, and Arumanis at Kecamatan Talun, namely *B. dorsalis*; *B. carambolae*; interspecific hybrids of *B. carambolae* and *B. dorsalis*; and *B. albistrigata*. The dominant species was *B. dorsalis*. Diversity index (H') of fruit fly species was $0,05 \leq H' \leq 0,48$ ($H' < 1,5$), so that the diversity was considered low.

(ABS-1224)

Impact of Wild *Cicer* Species on Production under Climate Change

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Keywords: chickpea, wild *Cicer* species, breeding, climate change.

Chickpea (*Cicer arietinum* L.) is mostly grown in marginal areas under rainfed conditions in the world, and it is exposed to high temperature and drought stresses. Extreme temperature in the near future has been predicted to increase due to climate change that caused to take place high temperature and drought stresses. Therefore, it is necessary to release cultivars to be resistant to high temperature and drought stresses to maintain stable production of chickpea. *C. pinnatifidum* and *C. reticulatum* have been shown to be tolerant to heat and drought stress. Perennial wild *Cicer* species including *C. anatolicum*, *C. microphyllum*, *C. montbretti*,

C. oxydon and *C. songaricum* were found to be tolerant drought. Although perennial wild *Cicer* species have been shown to be significantly tolerant to drought stress, only two *Cicer* species can be crossed with the cultivated chickpea. To overcome these stresses, all *Cicer* species should be used in a long-term breeding program to produce chickpea cultivars that are tolerant to high temperature and drought stresses.

(ABS-1236)

Physical and Milling Quality of Several Rice New Superior Varieties

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Keywords: grain physical quality; rice milling quality; local variety, new superior varieties

The purpose of this study is to examine the physical quality of grain and milling quality of the local varieties of Yogyakarta rice (Mentikgrompol) and several new superior varieties (Sembada Merah, Sembada Hitam and Inpari 43). The results showed that the percentage of empty grains of Mentikgrompol and Inpari 43 fulfilled the requirements of Indonesian National Standard (INS) of grain in 1993 in the first quality class. While the percentage of green / chalky grains of Mentikgrompol and Inpari 43 met the second quality class. Grain density and weight of 1000 grains of four rice samples ranged from 449.0 g/l (Sembada Hitam) to 531.5 g / l

(Mentikgrompol) and 20.09 (Inpari 43) to 24.67 (Mentikgrompol) respectively. Based on the rice form, Mentikgrompol included as bold rice (1,1-2,0), Sembada Merah and Sembada Hitam included as medium rice (2,1-3,0), and Inpari 43 included as slender rice (> 3.0). The yield of broken rice ranged from 69.24% (Sembada Hitam) to 77.56% (Inpari 43) and the yield of milled rice ranged from 62.08% (Mentikgrompol) to 67.81% (Inpari 43). Inpari 43 has the best head rice percentage (94.04%) and almost fulfilled the premium quality class of INS of rice in 2015.

(ABS-1237)

The Occupancy of Barn Owl in The Artificial Nest Box To Control Rice Field Rat in Yogyakarta Indonesia

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Keywords: barn owl, rice field rat, rice field, biological control

One of the component of integrated rat management was a biological control using barn owl and constructing barn owl nest box in rice crop. The goal of the study was to evaluate occupancy of barn owl in an artificial nest box, rat population and rat damage. The research was conducted in three locations by allocating and controlling 10 nest boxes randomly in Yogyakarta. Assessment of their occupancy was monitored by the presence of the barn owl in their nest box (egg, chick and adult) and also number of natural owl nests in villages near nest box. The rat population was observed by the active burrow method and the installation of trap barrier

system. Rat damage area and intensity was estimated by sampling 150 tillers randomly. The result indicated that only 1-4 nest boxes were occupied in each location. The Owls also nest naturally in villages near nest box installed. Active burrows were identified less than 50%. Rat damage area was accounted for 33.33% - 48.57% with 6,33% - 14,86% for their intensity and not significantly different from the control site, except in Kalibawang treatment location. Artificial nest box installation for owls in rice fields was only occupied for breeding.

(ABS-1250)

Utilization of RAPD Markers to Analysis Genetic Diversity Oil Palm (*Elaeis guineensis* Jacq.) D x P 540 NG Variety

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Keywords: oil palm, genetic diversity, DxP 540 NG, RAPD

Genetically, each individual in one variety of oil palm is varies, both from the level of relationship and the level of diversity. Genetic diversity can be determined used one of the molecular markers, that is RAPD. The study aims to determine genetic diversity of oil palm (*Elaeis guineensis* Jacq.) DxP 540 NG variety which is moderate variety of resistant ganoderma bassed using 3 RAPD markers. The study is conducted at the Biotechnology Laboratory, Faculty of Agriculture, University of

Sumatera Utara, Medan. The genetic materials analyzed came from 20 of oil palm DxP 540 NG variety. Genetic bands size measured using *UVITEC Cambridge Fire Reader*, genetic distances calculations obtained *Principal Coordinates Analysis (PcoA)* and *Neighbor-Joining Tree (NJTree)* analysis using software. The results showed that the 20 plants had genetic distances ranging 0 – 0,60 and were divided into 3 main groups with unqualified molecular diversity of 54,31%.

(ABS-1251)

Morphological Response of Some Brown Rice Varieties (*Oryza sativa* L.) Using PEG 6000 at Vegetative Phase

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Keywords: rice, varieties, peg 6000, morphological response, drought stress

Rice is a food crop that generally planted in rainfed land that utilizes rainwater as its primary supplier so that testing of several drought-tolerant rice varieties is needed. The research examined the morphological response of brown rice to drought in the vegetative phase by treating the addition of Polyethylene Glycol (PEG) 6000 with a level of 20 g / l water. The research conducted at the Faculty of Agriculture's Greenhouse, University of Sumatera Utara, held in October 2018 until January 2019 using a randomized block design consisting of two factors with three replications. The results showed that the treatment of watering intervals of

14 days and 21 days on average plant height (75.14 - 67.71 cm), number of leaves (20.33 - 19.42 strands), number of tillers (4.11 - 3.67 tillers) and root volume (5.44 - 3.67 ml) were not significantly different compared to the control treatment, the highest average root length found in the watering interval of 21 days (29.13 cm). Of the several tested varieties obtained genotypes that were most resistant to drought stress based on their morphological responses were Inpago 7 varieties compared to Inpara 7 and Inpari 24 Gabusan varieties.

(ABS-1252)

Quantity and Quality Test of DNA Soybean Mutant Lines (*Glycine max* L. Merrill)

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Keywords: soybean, mutant lines, quantity test, quality test, DNA

Soybean is one of the important commodities in Indonesia, but its production is still low. One factor decrease soybean production due to the attack of the fungus *Athelia rolfsii* Curzi. Mutagenesis is one breeding technique for creating gene variability for resistant of disease in soybean. The study aims to examine quantity and quality DNA of soybean mutant lines resistant *Athelia rolfsii* Curzi. The study was conducted at Plant Biotechnology Laboratory, Faculty of Agriculture, University of Sumatera Utara, Medan. DNA of 7 soybean mutant lines and variety of Anjasmoro was

isolated using CTAB extraction method, quantity test using spectrophotometer and quality test using *UVITEC Cambridge Fire Reader*. The results showed lines that had bright and thick band pattern found in Anjasmoro, M100-25(2/7), M100-A25(3/4), M200-A11(39/7), M300-A8(35/7), while thin and less bright band found in M200-A11(32/3), M200-A12(6/5), M300-A6(33/3). The purity of DNA produced range from 1.84 – 2.00 and the concentration of DNA produced range from 72.9 – 847.3 µg/ml.

(ABS-1269)

Profile of Oil Palm (*Elaeis guineensis* Jacq.) DNA Band DxP 540 NG Variety Based on RAPD (Random Amplified Polimorphism DNA) Marker

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Keywords: oil palm, polymorphism, RAPD.

RAPD marker is an informative molecular marker, could enhance the efficiency of early selection stage and reduce selection time in oil palm breeding. The aim of this study was to look at the percentage of polymorphic bands of genetic diversity in the DxP 540 NG Variety based on three random amplified polimorphism DNA marker. This study was conducted in Laboratory Plant Biotechnology Faculty of Agriculture, Universitas

Sumatera Utara, Medan. A total of 20 oil palm leaf samples of the DxP 540 NG variety were isolated. The absorbance values of DNA stocks at A260 / 280 ranged from 1.37-2.50. The size of the bands ranged from 446-1574 bp measured using *UVITEC Cambridge FireReader* software. The DNA concentration (µg / ml) ranged from 95.1-1036. The total banding pattern produced 14 bands with 100% polymorphic bands.

(ABS-1302)

Seed Priming Alleviates Crop Growth Inhibition by Salinity

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Keywords: Seed priming, rice, soybean, salinity.

Salinity has become one main obstacle in increasing marginal land crop productivity. Several attempts have been made to deal with salinity. This study aimed at alleviating rice and soybean growth inhibition as caused by salinity, using seed priming during pre-sowing. The factorial Randomized Completely Block Design was used in both experiments. The first experiment examined the effects of seed priming using four levels of NaCl concentrations, i.e. 0.2, 150, 300 and 450 mM NaCl on the growth and yield of two rice varieties (Dendang and IR 64) in salinity. Whereas in the second experiment, the effects of seed priming using three levels NaCl

concentrations, i.e. 0, 40 and 80 mM were tested on three soybean varieties (Anjasmoro, Dering and Grobogan) under salinity. The results from the first experiment showed that the two rice varieties responded differently to seed priming treatments. Seed priming using 150 mM NaCl increased leaf and root surface area as well as yield in IR 64 variety. However, Dendang (the salt tolerant variety) was less responsive to seed priming compared to IR 64. Similar results were also found from the second experiment. Among three soybean cultivars, only Dering (the salt sensitive variety) which showed a positive responses to seed priming up to 80 mM NaCl.

(ABS-1304)

Analysis and Agronomic Character of Shallot (*Allium ascalonicum* L.) in the Rainy Season Maria Theresia Darini

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Keywords: Crop Growth Rate, Growth Index, Harvest Index, yield of bulb.

This study aims to know correlation of growth analysis and Agronomic character of application of ammonium sulphate (AS) fertilizer through the sources of rhizobacteria on agronomic characters of shallot in off season. The study was conducted in Balecatur village, Gamping, Sleman, Special Region of Yogyakarta Indonesia from January to April 2018. The study was done using Randomized Complete Block Design Factorial with three replications. The first factor was various dosage of AS fertilizer (150, 250 and 350 kg ha⁻¹). The second factor was various sources of rhizobacteria (bamboo root, gliricidia root, peanut root) and control which was applied by 350 kg ha⁻¹ of AS.

The observed variables were the analysis of growth and agronomic character component of shallot plant. The results were analysed using analysis of variance at 5% of significant then continued by multiple Duncan test at 5% of significant, then followed by product moment correlation formula. Results showed that, there was a real positive correlation between the analysis of growth and agronomic character component, while a negative correlation between harvest index with the growth analysis and agronomic component variables.

(ABS-1316)

Study of Tricho-compost and Rice Husk Biochar Applications To Development of *Phytophthora* Late Blight Diseases and Yields of Potato Plants

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Keywords: agricultural waste, increase in crop productivity, quality of potato tuber

Increasing crop productivity can do through improved cultivation technology by utilizing agricultural waste. This study aims to determine the development of *Phytophthora* late blight deseases and yields of potato crops through the applications of tricho-compost and rice husk biochar. Potato varieties used are Granola. Beds covered with plastic mulch, fertilizing using NPK according to recommendations, weeding weeds according to conditions, controlling pests and diseases based on Integrated Pest Control. The difference in technological treatment studied was 1) tricho-compost 10 tons/ha, 2) tricho-compost 10 tons/ha + rice husk biochar 1 ton/ha, 3) tricho-compost 10

tons/ha + rice husk biochar 2 tons/ha, and control(farmer technology without tricho-compost and without rice husk biochar). The environmental design used was a Randomized Block Design (RBD) with 7 replications. Data were analyzed by The F test and further tests used with Duncan. Results showed that the intensity of *Phytophthora* leaf deseases was lower in potato fields with tricho-compost and rice husk biochar applications. Application of tricho-compost + rice husk biochar 2 tons/ha can increase potato productivity to 27 tons/ha (28.6% higher than farmer technology), and improve the quality of potato tubers, especially XL tubers.

(ABS-1331)

Precipitation Forecasting Using Neural Network Model Approach

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Keywords: GSTAR, SUR, Neural Network, Cross Covariance Normalization

Neural network constitutes a non-linear model requiring no statistical assumption. Along the development of which, neural network model has been frequently combined with time series and spatio temporal models. This current research combined neural network and spatio temporal models. One of spatio temporal models is GSTAR-SUR model. The weight projected in this current research is cross covariance normalized weight. This sort of weight is deemed suitable for data with high variability. The significant variable in GSTAR-SUR model containing cross

covariance normalized weight was used as input layer of neural network model. The hidden layer made use of 10 neurons fulfilling the criteria of the lowest RMSE value and there was 1 neuron used as output. The data were in the form of 10-day precipitations in Junggo, Pujon, Tinjumoyo, and Ngujung, during the period of 2005 to 2014. This research has found out that NN-GSTAR-SUR model yielded better and more accurate forecasting, showing R^2 value of 61.77%.

(ABS-1318)
Testing Organic Polybag for Papaya (*Carica papaya* L.) Nursery

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Keywords: Nursery, Papaya, Organic Polybag.

There are some procedures to advance the quality of papaya; one of which is by sufficing the need of high-quality seeds in proper amount. Using plastic polybag for plant nursery will negatively pollute the environment and is polybagential for resisting the root's growth. Therefore, organic polybag is claimed as the best solution due to its excellence of not undergoing segregation process during seed plantation. In addition, it also has good drainage and aeration to support the root's growth.

Further, this current research aimed at testing the use of organic polybag for papaya nursery. There were 7 treatments in total with organic polybag as the main highlight. The control variable was organic polybag (PO – with 60% of water hyacinth: 40% banana pseudo stem). Meanwhile, the 7 treatments comprised 59% of water hyacinth: 40% banana pseudo stem: 1% manure [POA – organic polybag with chicken manure; POS – organic polybag with cow manure; POK – organic polybag with goat manure); and POP – organic polybag with manure

made of *Tithonia diversifolia*] and 59% of water hyacinth: 39% banana pseudo stem: 2% combined manure [POAS (chicken + cow manures), POAK (chicken + goat manures), POAP (chicken + *Tithonia diversifolia* manures)]. The variables under observation consisted of height of plant (cm), number of leaves (blade), diameter of stem (mm), length of root's penetration (day), dry weight of stem (g), and weight of root (gr). Moreover, the data were analyzed by using F-test, followed by BNJ or Tukey appealing test with 5% of significance and finished by correlational analysis in between variables of observation.

The use of organic polybag for papaya nursery resulted in significant effect when it was compared to the control on variables of observation (such as number of leaves, length of root, dry weight of root, and diameter of stem); yet, it was relatively different compared to that of in POP treatment on height variable (from 21 to 28 days after planting), in POA treatment, and in POAK treatment on stem's diameter variable.

(ABS-1319)

Rainfall Forecasting in Agricultural Areas Using GSTAR-SUR Model

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Keywords: cross-covariance, GSTAR Model, precipitation, spatio-temporal.

The use of location weights on the formation of the spatio-temporal model contributes to the accuracy of the model formed. The location weights that are often used include uniform location weight, inverse distance, and normalization of cross-correlation. The weight of the location considers the proximity between locations. For data that has a high level of variability, the use of the location weights mentioned above is less relevant. This research was conducted with the aim of obtaining a weighting method that is more suitable for data with high variability. This research was conducted using secondary

data derived from 10 daily rainfall data obtained from BMKG Karangploso. The data period used was January 2005 to December 2015. The points of the rain posts studied included the rain post of the Blimbing, Karangploso, Singosari, Dau, and Wagir regions. Based on the results of the research forecasting model obtained is the GSTAR ((1), 1,2,3,12,36) -SUR model. The cross-covariance model produces a better level of accuracy in terms of lower RMSE values and higher R² values, especially for Karangploso, Dau, and Wagir areas.

(ABS-1336)

The Assessment of Insect Diversity and Community Structure in the Sugar Cane Plantation in Jambi Province

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Keywords: Diversity, Abundance, Number of species, Composition of species, Functional group.

Sugar cane is cultivated in diverse agroecosystems, so it has the potential for different pest attacks. The study of the biodiversity of insects in sugar cane plantations at different heights has the objective of knowing community structures that are useful in returning decisions in integrated pest control. The study was conducted on sugar cane plantations in the highlands and lowlands, namely in Kerinci and Muaro Jambi Regency. The insect collection used yellow pan trap measuring 20x20 cm for 7x24 hours while a pitfall trap were installed for 2 x 24 hours to be further identified to the

level of morphospecies. The results showed that a height difference did not affect the diversity of insects in sugar cane agrosystem, nevertheless there are differences in an abundance of pests that attacked. In the highlands, the pests that attack is *Sesamia inferential* (Jambon Borers) or more commonly known with Andong-andong. *S. inferential* is the main pests that attack buds. In the lowlands, the main pest is Ants (Hymenoptera) for causing hollow stems of plants. The intensity of the attack in the highlands ranges 36 - 76 %, while in the lowlands 28 - 40 %.

(ABS-1346)

Vegetative Characterization of Kepel (*Stelechocarpus burahol* [Bl] Hook.F. & Thomson) In Yogyakarta City

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Keywords: identification, diversity, burahol, cluster analysis

Kepel or *Burahol* is a rare plant that becomes the identity plant of Yogyakarta Province and it is often used as natural perfume and biofarmaca. This research was conducted to identify the vegetative characterization of *kepel* and to determine the variety of *kepel* in Yogyakarta city. The study was conducted from December 2018 to March 2019. This research used a survey method with sampling purpose in 14 districts in Yogyakarta city (including Keraton district and Pakualaman district). *Kepel* tree that have produced fruits, healthy, and normal growth were used as samples. Each plant was observed and the vegetative parameters were measured including the trunk,

the leaf, and the canopy. The observation variables according to the description for Annonaceae plants were based on Biodiversity International, International Plant Genetic Resources Institute (IPGRI). The data were analyzed using cluster analysis. The results of cluster analysis indicated that there are three clusters with a similarity level of 54%. Cluster A has 17 accessions (37%), Cluster B has 23 accession (50%), and cluster C has 6 accession (13%). *Kepel* accession E5 located in Gondomanan sub district is expected to be a high-yielding variety based on the number of tubercles.

(ABS-1364)

Analysis of Flavonoid Content in Moringa Leaves Comes from Sigi Biromaru, Palu, Central Sulawesi

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Keywords: Moringa leaves, 2% acetic acid, flavonoid content

Moringa is a multifunctional vegetable plant so that all parts of this Moringa plant can be used as a food source because it contains active compounds and complete nutrition. Moringa is widely used because it is beneficial to health. Many compounds in Moringa leaves are very beneficial for health, one of which is flavonoid compounds. An analysis of the flavonoid content in

Moringa leaves has been analyzed. Analysis of flavonoid content was carried out by extracting Moringa leaves with 2% aquades-acetic acid solvent. The extract was analyzed qualitatively and quantitatively using a UV-Vis spectrophotometer. The results of the analysis showed a positive effect on flavonoids with 17.42 mg / 100 g samples.

(ABS-1363)

Utilization of Safira Taro Flour (*Colocasia esculenta*) as Addition of Natural Stabilizers on Yoghurt Products

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Keywords: Yoghurt, stabilizer, taro tuber flour, fermentation

The increasing public awareness of the importance consuming healthy food, encourage the development food of biotechnology. Yoghurt is a biotechnology processed food made from milk which has been fermented by *Lactobacillus* and *Streptococcus lactic acid* bacteria which have antioxidant activity. The weakness of yoghurt products is that in the manufacturing process there is a decrease in water holding capacity (whey off), this is caused by a decrease in the pH of yoghurt in the range of the casein isoelectric point which affects the quality of the yoghurt end product. The purpose of this study is to maintain the final quality of yoghurt with the addition of natural taro flour stabilizers. The method used in this study is comparing the concentration of

natural stabilizer 2.5%, 1.25%, 0.165%, 0.1% and incubation time 9 hours, 18 hours, 24 hours, 34 hours. Parameters of observation are the analysis of the physico-chemical properties of yoghurt. The results showed the best yoghurt with fat content (0.51%), potassium (2354.64 mg / kg), nutrient content (612.8 kcal energy; protein 12.7; carbohydrate 9.85 g; calcium 120.29 g; phosphorus 223 , 5g; Iron 20.3g; Vitamin A 484mg; vitamin B 0.387mg; vitamin C 1.81 mg)), and organoleptics showed that panelists preferred yoghurt variants (sweet taste). The best yoghurt is that there is no decrease in the binding capacity of the water with the addition of a natural stabilizer with an incubation period of 24 hours with a 0.1% stabilizer.

(ABS-1388)

Abaca Banana Root Induction In Vitro Using Kinds of Media and Thiamin

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Keywords: abaca banana, root induction, media, thiamin

Abaca banana is one economic fiber plants, the lack of abaca banana supply has encourage the expansion of abaca banana plantation. To support the availability of plants material, propagation by tissue culture technique being a good alternative for mass production. This reserch was aimed at studying the responses of root production of abaca banana as result of effect of various media (Murashige and Skoog, half Murashige and Skoog,

Vacint and Went) and concentration of thiamin (2 mg/L; 3 mg/L; 4 mg/L) through *in vitro* method. The study was conducted in the Laboratory Tissue Culture Department of Agrotechnology UPN "Veteran" Yogyakarta. The results showed there is an interaction with the addition Murashige Skoog media and thiamin 3 g/L can increase the number of roots, length of roots, length of planlets.

(ABS-1365)

Diversity and Phytochemistry Analysis in Zodia Plants Organs (*Evodia suaveolens*)

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Keyword: zodia, hexane, benzene, evedone, vulgarone B, aristolone, decosane.

Zodia is one of the Indonesian, plants from Papua, designated as biofitopharmaca because of its efficacy in preventing mosquito bites in the human body. The variety of types and levels of these organic compounds found in each organ of the plant zodia is the purpose and benefit of this study. The research was conducted in March to June 2018 at the Chemistry Laboratory of the Faculty of Mathematics and Natural Sciences, Padjadjaran University and the Biochemistry Laboratory of the Indonesian Education University, both in the city of Bandung. The results showed that zodia plants dominated by hexane compounds were found in root bark (40.9%), stem bark (81.1%), leaves (88.2%), and seeds (90.2%). Then followed by benzene compounds respectively in the root bark organ (58.1%), stem bark

(3.5%), seeds (1.5%), and leaves (1.9%). The total types of phytochemical compounds contained in the root bark organ (43 types), leaves (23 types), stem bark (18 types), and seeds (13 types). The special phytochemical in root bark is Aristolone, in stem bark is Longiverbanon or Vulgarone B, in leaves is Evodone, and in seeds is Decosane. All types of phytochemicals detected through GCMS chromatography method type GC-2010 and QMS-2010 type GCMS are potential as phytopharmaca if managed appropriately. By knowing the types and levels of phytochemicals found in each organ of zodia, it is expected to open the opportunity for the drug industry to manage phytochemicals to be clinically useful for humans.

(ABS-1371)

Phylogenetic Relationship among Taxa in the Genus *Pisum* L. based on Morphological Traits

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Keywords: pea; *Pisum*; phylogenetic relationship.

The number of species in the genus *Pisum* L. has been far from consensus since the species in the genus have been reported as two to five or as monotypic. The aim of the present study is therefore to bring to light phylogenetic relationship on morphological traits in five pea taxa including *Pisum sativum* subsp. *sativum* var. *sativum* L. (garden pea), *P. sativum* subsp. *sativum* var. *arvense* L. (Poir.) (field pea), *P. sativum* subsp. *abyssinicum* A. Braun (Dekoko or Abyssinian pea), *P. sativum* subsp. *elatius* M. Bieb. and *P. fulvum* Sib. & Sm. using multivariate cluster analysis (MCA). According to

MCA analysis, *P. sativum* subsp. *sativum* var. *sativum* and *P. sativum* subsp. *sativum* var. *arvense* were clustered in the same group, whereas *P. sativum* subsp. *abyssinicum* was closer to these two taxa. Although wild species including *P. sativum* subsp. *elatius* and *P. fulvum* were found to be different from the cultivated species, *P. fulvum* was distinctly different from the other taxa. Phylogenetic relationship among taxa in the genus *Pisum* was clearly brought to light as the useful findings in the present study.

(ABS-1391)

Evaluation of Several Rice Varieties (*Oryza sativa* L.) in the Minapadi Cultivation System in Sleman, Yogyakarta

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Keywords: evaluation, minapadi, Yogyakarta

Minapadi is fish farming in the fields along with rice cultivation. The study aims to determine the responses of several rice varieties in Minapadi cultivation. The study was conducted in Samberembe, Candibinangun, Pakem, Sleman, Yogyakarta in March until August 2018. The research was arranged factorial, the first factor was the cultivation system: minapadi and ugadi (shrimp with rice), the second factor was 4 rice varieties: Sembada merah, Inpari 30, Inpari 43, and Inpari 42. The results showed that the evaluated rice varieties differ from each other according to their genetic potential which was influenced by their growing environment. There were

significant differences in all parameters, both in the treatment of varieties and cultivation systems and their interactions. The average productivity in minapadi cultivation was higher (7.79 tons / ha) than ugadi cultivation (7.24 tons / ha). The highest average productivity was achieved by Inpari 43 (8.07 tons / ha) followed by Inpari 42 (7.49 tons / ha) and Sembada variety (7.49 tons / ha), the lowest achieved by Inpari 30 (7, 00 tons / ha). The interaction of varieties and cultivation systems, the highest productivity was achieved by Inpari 43 on Minapadi cultivation = 9.58 tons / ha.

(ABS-1436)

Volatile Compound and Antioxidant Capacity of *Piper crocatum* Leaf

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Keywords: antioxidant capacity, piper crocatum leaf, extraction and volatile compound

The research of volatile compound of *Piper crocatum* leaf extract has been done. The aim of research is to know the volatile compound of *Piper crocatum* leaf extract. The research was started by extraction of *Piper crocatum* leaf. This extraction method used maceration and reflux with ethanol 96%. Component in the extract were identified using of GC-MS method. DPPH (2,2-diphenyl-1-picrylhydrazyl) method was used on activity test of antioxidant. The result showed that volatile compound of *Piper crocatum* leaf extract were

dominated by the monoterpenes, which were sabinene and myrcene. Antioxidant activity test with DPPH method to leaf extract fraction of *Piper crocatum*, known that extract by maceration and reflux have potency as antioxidant with value of IC₅₀ of $46,51 \pm 0,05$ (AAE μ g/ml) and $49,57 \pm 0,27$ (AAE μ g/ml) respectively. Antioxidant capacity of *Piper crocatum* leaf extract by maceration and reflux were $10892,86 \pm 6,06$ (AAE μ g/ml) and $9971,43 \pm 6,06$ (AAE μ g/ml).

(ABS-1392)

Study of Plant Materials from True Seed of Shallot (TSS) in Three Seedling Systems

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Keywords: Nursery System, TSS, Seedling

The shallots planting material from True Seed of Shallots (TSS) was influenced by the system nursery before being planted on agricultural land. Healthy seedlings were seeds produced by TSS seed nurseries. The study was carried out at the AIAT Experimental Garden in Banyakan, Siti Mulyo, Piyungan, Bantul in June - July 2018. The study was arranged in a complete randomized block group (RCBD) with the treatment of three seedling system namely tabela, boxes and polybags which were repeated 6 times in Bima varieties produced by AIAT of Central Java. The size of the seedling plots

of each variety was 1 x 5 m² for tabela system, 40 x 60 cm for box systems and polybags measuring 12 x 17 cm. The media used are soil, fuel husks and organic fertilizers with sprinkler irrigation systems. The results showed that the growth power and weight of planted seedlings, number of leaves and plant populations were significantly different, except plant height and root length. Provision of good and healthy planting materials from TSS seeds through the tabela system was the most feasible, based on variables of growth power, number of leaves, seed weight per plant and population.

(ABS-1394)

Effectiveness of Citronella, Clove, and Neem Essential Oil Mix Formulas Against Budok Disease of Patchouli Plant

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Keywords: Patchouli, budok, *Synchytrium pogostemonis*, essential oils

Synchytrium pogostemonis is one of the most important fungal plant pathogens. This fungus causes budok disease on patchouli plant. Research to control the disease was conducted at Indonesian Spices and Medicinal Crop Research Institute, Bogor. The research was purposed to evaluate effectiveness of citronella, clove, and neem essential oil formulas on budok disease of patchouli plant. Mix combination of those three essential oil formulas were tested, as well as, their single formulas. Two synthetic fungicides (benomyl and bourdeaux mixture) were also tested as comparisons, as well as, water as a control treatment. One-month-old patchouli plants were sprayed with each of the single and mix combination formulas of those three essential oils (5 ml/l), benomyl (3 g/l), bourdeaux mixture (1 g/l) and water as much as (100-200 ml/plant) every two weeks

for 5 times respectively. Experiment was conducted in a randomized completely block designed (10 treatments, 3 replicates, and 16 plants/replicate). Result of this experiment indicated that the mix essential oil formula of (neem+citronella) was the most effective in reducing budok disease incidence. Its effectiveness was higher (56.51%) and comparable to benomyl (47.82%) and bourdeaux mixture (52.18%). The mix formula of (citronella+neem) could be recommended as a botanical fungicide for controlling budok disease of patchouli plant. The use of essential oils mix formulas, hopefully could control plant diseases, inhibit the resistancy of target pathogens, reduce phytotoxicity and concentration of the more toxic essential oil once, as well as, to reduce the uses of synthetic pesticides.

(ABS-1405)

Indirect Interaction Between Soil Organisms and Aboveground Arthropods in Organic Paddy Fields: Patterns and Mechanisms

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Keywords: Organic paddy fields, Aboveground arthropods, Soil organisms, Histories of organic paddy

Organic farming is most promising way to overcome negative effects of modern farming on ecosystem. To understand effect of different histories of paddy field on interaction between soil organisms and biodiversity of aboveground arthropods, we carried out researches in paddy field with 5 and 20 years old. The aims of the study are to reveal the effects of soil organisms on the abundance of aboveground arthropods by measuring the soil organism activity, nutrient availability, and abundance of the arthropods. We predict that subsidies of organic input in the organic paddy fields should increase microbial N immobilization and denitrification,

effectively increase the N available for arthropod abundance. The results showed that long histories of organic paddy fields improved the abundance of soil organisms, soil microbial biomass C and N, soil nutrition, and these effects indirectly improved the abundance of aboveground arthropods. This study suggested that organic paddy fields improved the biotic interactions within and between soil organisms and aboveground ecosystem thereby might achieve sustainability of the paddy field system

(ABS-1439)

The Influence of Sucrose and *Acetobacter aceti* Addition to Acetic Acid Content on Coconut Water Vinegar

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Keywords: Vinegar, sucrose, *Acetobacter aceti*, acetic acid.

Vinegar coconut water can be made from coconut water by fermentation through two stages, namely alcohol fermentation in the presence of anaerobic yeast and acetic acid fermentation with acetic acid bacteria in aerobic. The present work was to investigate of influences of sucrose addition on alcohol fermentation and *Acetobacter aceti* on acetic acid fermentation to the acetic acid content of coconut water vinegar an phenol content. The method of experiment was used a completely randomized design by factorial with two replications. The first factor was sugar concentration (A)

consisting of 2 levels i.e 15% and 20%, whereas the second factor was the concentration of inoculum of *A. aceti* consisting of 3 levels i.e 10%, 15% and 20%. Observations determined for ethanol content, pH, specific gravity and acetic acid content. The result showed ethanol and acetic acid content tends to increasing and pH was decreased whereas specific gravity almost constant. Then, for acetic acid fermentation was showed increasing the acetic acid content for all treatment in days 49, especially for the treatment of 15% sucrose and 10% *A. aceti* 10% addition.

(ABS-1395)

Ability of *Trichoderma harzianum* in Carbon Fiber and Silica Nano Particles Formulation to Control *Fusarium oxysporum* *in vitro*

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Keywords: biocontrol delivery system, biological agents, antagonistic fungus

Basal rot disease caused by *Fusarium oxysporum* f.sp. *cepae* is one of the major diseases that cause yield loss on shallot. Utilization of biocontrol agents can be applied as an environmentally safe control method. The antagonistic microorganism that has the potency to control Fusarial diseases is *Trichoderma harzianum*. A carrier is required in preparing a formulation of this antagonistic fungus as a biocontrol delivery system. Carbon fiber was proven suitable as a carrier of some antagonistic bacteria. A formulation can also be supplemented with plant micronutrient. Addition of silica nano particles (silica NPs.) in the formulation did not reduce the viability of the antagonistic bacteria. An experiment was carried out to determine the ability of *T. harzianum* in the formulation with carbon fiber and silica NPs. to suppress the *in-vitro* growth of *F. oxysporum*.

The experiment was arranged in the completely randomized design with 5 treatments and 5 replications. The treatments were challenging *F. oxysporum* by *T. harzianum* in different composition of formulation on potato dextrose agar. The compositions consisted of *T. harzianum* + 0.5% silica NPs., *T. harzianum* + 1% silica NPs., *T. harzianum* + 0.5% silica NPs. + 5% carbon fiber, *T. harzianum* + 1% silica NPs. + 5% carbon fiber, and *T. harzianum* only (control). The results showed that each treatment with *T. harzianum* in the formulation of carbon fiber + various concentrations of silica NPs. was able to suppress the *in vitro* growth of *F. oxysporum* by 58.39-60.92%. The control treatment of single *T. harzianum* caused the highest suppression on the growth of *F. oxysporum*, up to 60,93%

(ABS-1475)

Land suitability for soybean (*Glycine max* (L.) Merrill) In sandy Coastal Land of Parangtritis Bantul Regency

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Keywords: Sandy coastal land, Land suitability, Limiting factors, Combination of organic matter, In-organic amendment and in-organic fertilizer

This research was conducted using observation method by collecting the primary and secondary data. Primary data were soil characteristics which determined using the laboratory analysis procedures, while secondary data were supporting information obtained from local government agencies. The results showed that the sandy beaches of Parangtritis beach had a sandy texture, very fast soil drainage, effective depth of low to

moderate soils, low salinity, low cation exchange capacity, percentage saturation of medium to high bases. Based on the results of the analysis of primary and secondary data, actually the sandy land of Parangtritis beach is categorized into land suitability class S3r-1; r-2 for soybean plants, with soil drainage and texture as a limiting factor. Potentially, to reduce the negative effects of existing limiting factors, the addition of large amounts

of organic matter, in-organic amendments, and NPK fertilizer is highly recommended.

(ABS-1448)

The Physico-Chemical Characteristic of Nata De Coco

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Key words: influence, type, concentration, characteristics, nata de coco.

The fermentation technology for processing nata de coco can be used by using coconut water waste sources and the use of *Acetobacter xylinum* bacteria. The purpose of this study is to analyze the physico-chemical quality of nata de coco produced by using a combination of sources of raw materials and their concentration on the quality of the nata de coco produced. The methodology for making the basic formula used 5 grams of nitrogen, ammonium sulfate and acetic acid in coconut water. The treatment used is in the form of using a variety of carbon sources in the form of granulated sugar, pineapple honey, tapioca and molasses with variations in concentrations of 3, 6 and 9%. The data obtained is then analyzed using IBM SPSS Statistics 23. Software. Based on the results of analysis, the results show that the different uses of source types

and carbon concentrations significantly affect physical characteristics such as thickness, weight, residual water volume, color, hardness, frequency and value of TPT from nata de coco produced. The highest levels of crude fiber and cellulose were obtained from the treatment of 3% tapioca flour carbon sources of 0.68% and 0.78%. SEM observations of the treatment of 3% tapioca flour with a magnification of 10,000 times the actual size with cellulose tape sizes ranging from 120.8 nm to 155.5 nm with irregular shapes and uneven surface texture. The results of the FTIR spectrum of cellulose nata de coco treatment of 3% tapioca flour there was a group absorption peak at wave number 3392.17 cm⁻¹, vibration was at wave number 1402.55 cm⁻¹, 1052.86 cm⁻¹, 1110.02 cm⁻¹, 1629.47 cm⁻¹.

(ABS-1476)

Effects of Exogenous Auxin on the Growth of Tea (*Camellia sinensis*) Cuttings

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Keywords: IBA, Rootone-F, goat urine, red onion

This research aimed to determine the source of auxin which can increase the growth of tea cuttings. This research was conducted in the Tanjungsari plantation unit of PT Tambi tea nursery, Wonosobo and the Research Laboratory of University of Muhammadiyah Yogyakarta, from February to August 2018. The experiment was a single factor experiment arranged in a Completely Randomized Design (CRD). The tested

treatments were auxin sources consisting of IBA 6.000 ppm, Rootone-F paste, 10% goat urine, 70% shallot and without auxin addition. The result showed that the addition of IBA 6.000 was able to improve the rooting percentage of the tea cuttings. The addition of 10% goat urine and 6,000 ppm IBA significantly increased root length and leaf area of the tea cuttings.

(ABS-1462)

Potential Pest of High Amylopectin and Rich Anthocyanin Corn Varieties

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Keywords: Black corn, corn, *Helicoverpa armigera*, *Ostrinia furnacalis*, potential pest, waxy corn

As part of agricultural cultivation practices, especially plant breeding activities, the resistance of cultivated plants to pest attacks is one of the characteristics that must be prioritized. This research was conducted to study the type of pest and their damage intensity as the first step in the breeding program of waxy corn and black corn. The study was carried out through field survey activity on a weekly observation starting from plants aged 1 to 12 weeks old after planting. The type of pest found was identified and the damage intensity was calculated. The type of pests found consisted of grasshoppers, thrips, stem borer, earworm,

and rat as well. There was no difference in population size and damage intensity of all pests in two corn varieties. The population size and damage intensity of all pests were affected by the age of corn plant because each pest was attacked at different times either when the plants were in the vegetative or generative phase or both. Generally, the damage intensity of pest is still in the mild to moderate category. A monitoring activity needs to be conducted in the subsequent activity to obtain information on the development of these potential pest species and their populations size.

(ABS-1478)

Benzyl Amino Purine Enhances Multiplication of *Vanda tricolor* Protocorm Like Bodies Innaka Ageng Rineksane¹, Evo Wandu Saputra², Gatot Supangkat³, Agung Astuti⁴

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Keywords: *Vanda tricolor*, Tissue Culture, Cytokinin, Multiplication

Vanda tricolor orchids are endemic to the slopes of Mount Merapi, Yogyakarta Province, Indonesia. The mountain slopes and eruptions in 2006 have destroyed 80% of the habitat and threatened the existence of these orchids. In addition, the exploitation of *Vanda tricolor* out of its natural habitat by the community for collection or selling it outside the area has reduced the orchid population. Therefore, efforts should be carried out to improve technology to reproduce and regenerate *Vanda tricolor* orchids. One of alternative to regenerate *Vanda tricolor* is using multiplication technique through in vitro and ex vitro cultures. The objective of this study was to determine the best type and concentration of cytokinin for the multiplication of *Vanda tricolor* PLBs. The

experiment was arranged in a completely randomized design with single factor consist of 7 treatments id est medium without cytokinin, BAP 0.5 mgL⁻¹, BAP 1 mgL⁻¹, TDZ 0.5 mgL⁻¹, TDZ 1 mgL⁻¹, Kinetin 0.5 mgL⁻¹ and Kinetin 1 mgL⁻¹. Parameters observed in this study were a percentage of live, browning and contamination explant, the diameter of PLB, the emergence of shoots, the percentage of explant sprouting, the number of buds, the emergence of roots. The data were analyzed by using The Analysis of Variance at $\alpha=5\%$ and further tested using Duncan Multiple Range Test (DMRT) at $\alpha=5\%$. The results showed that BAP 0.5 mg / L was the best cytokinin for multiplication of *Vanda tricolor* PLBs.

(ABS-1483)

Postharvest Quality Changes in 'Phu-Chawa' Pineapple during Low Temperature Storage

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Keywords: phenolic compound, chilling injury, chemical composition

'Phu-Chawa' pineapple is a relatively new cultivar of a good fresh consumption quality. However, there is still a lack of information on quality change during low temperature storage of this new cultivar. Being a hybrid between resistant and susceptible cultivar, 'Pattavia' and 'Phuket', respectively, a comparison study between the 'Phu-Chawa' and its parents was conducted to investigate chemical compositions and internal browning of the fruit after 14 days of storage at $10\pm 2^{\circ}\text{C}$, $95\pm 5\%$ RH followed by another three days at 25°C . It was found that 'Phuket' showed browning symptom score of 4.3, while 'Phu-Chawa' and 'Pattavia' exhibited

browning symptom score of 0.7 and 0.1, respectively. 'Pattavia' and 'Phuket' had similar ascorbic acid content (9.1 and 4.3 mg Ascorbic acid/100 ml juice, respectively), which was lower than that of 'Phu-Chawa' (22.3 mg Ascorbic acid/100 ml juice). Similarly, 'Phu-Chawa' and 'Pattavia' had lower polyphenol oxidase and peroxidase activities than that of 'Phuket' cultivar. After storage, a decrease in gallic acid but increase in vanillic and caffeic acids were found in both 'Pattavia' and 'Phu-Chawa' pineapple. In contrary, catechin and 4-hydroxybenzoic acid increased in 'Phu-Chawa' but decreased in 'Pattavia' pineapple.

(ABS-1485)

Alginate Edible Coating Enriched with Vanilla Oil to Maintain the Shelf-Life of Fresh-Cut Red Pitaya (*Hylocereus polyrhizus*)

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Keywords: Fresh-cut Red Pitaya, Vanilla Essential Oil, Edible coating, Alginate

The research aimed to find out the best concentration from various vanilla essential oil concentration as antimicrobial agent added to alginate edible coating to inhibit the growth of microbial decomposition and maintain shelf-life of fresh-cut red pitaya (*Hylocereus polyrhizus*). The experiment was designed with Completely Randomized Design using four treatments as follows: 1) vanilla essential oil 0%, 2) vanilla essential oil 0.1%, 3) vanilla essential oil 0.3% and 4) vanilla essential oil 0.6%. The result showed that vanilla essential oil 0.6% was able to inhibit fresh-cut red

Pitaya's fungal decomposition. Concentration of vanilla essential oil 0.6% could maintain physical and chemical quality based on weight loss, firmness, titratable acidity and total soluble solids content. Moreover, sensory analysis on fresh-cut red Pitaya indicated that the same result. Edible coating alginate and vanilla essential oil was able to maintain the quality of fresh-cut red Pitaya up to 9 days.

(ABS-1486)

Macronutrients Content of Organic Fertilizer Made From A Combination of Cow Blood and Bone with Coconut Fiber Ash

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Keywords: nitrogen, phosphorus, potassium, soil, animal waste

Long term application of anorganic fertilizers had damaged the soil physically and chemically, thus reducing the soil support capacity toward the plants growth. It also suppressed the population of beneficial microbes in the soil. The use of organic fertilizers made from cow blood and bones in combination with coconut fiber ash might improve the plant productivity without causing severe damage towards the soil. Aim of this study was to analyze the macronutrients (nitrogen, potassium and phosphorus) content resulted from various combination ratios of cow blood, cow bones and coconut fiber ash. This study consisted of two main steps, including the making of organic fertilizer and analysis of macronutrients content.

Organic fertilizer was composed using five different ratios in the combination of cow blood (4.0-6.0 g), cow bone (1.75-2.75 g) and coconut fiber ash (4.0-6.0 g). Results showed that each combination (cow blood, bone and coconut fiber ash) produced various level of macronutrients content. The highest nitrogen content (1.74%) was achieved from the combination of 5.5 g blood, 2.5 g bone and 5.5 g coconut fiber ash. The highest content of available phosphorus (P) (41.469 ppm) was produced by the combination of 5.0 g blood, 2.25 g bone and 5.0 g coconut fiber ash. The highest content of available potassium (154.25 Cmol/kg) was obtained from the combination of 4.0 g blood, 1.75 g bone and 4.0 g coconut fiber ash.



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Nomophobic Students' Critical Discourse Analysis on New Yogyakarta International Airport News

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Keywords: Nomophobia, Critical Discourse Analysis, Macrostructure, Superstructure, Microstructure

Nomophobic students or students who are addicted with mobile phone in Yogyakarta have a major concern for current academic issues currently. Their mobile phone addiction is yet correlated negatively with their interpretation about news from media. It is needed other descriptive point of view to know the whole impacts instead of just the negative impacts. The aim of this research is to find out the critical discourse analysis ability of Nomophobic Students toward the news articles about New Yogyakarta International Airport (NYIA). The articles about NYIA are chosen because it has a major concern for years to University students in Yogyakarta. This research is descriptive qualitative research using case studies. The data was taken from January to September 2018. The object of the research was Nomophobic university students in Yogyakarta. The students are given questions about two different articles about NYIA which have relation with teun van dijk elements. The next step is analysing the students answers wheater it belongs to the teun van dijk theories which are macrostructure, superstructure, and microstructure elements or not. The finding shows that the "theme" elements are 100% known; the "rhetoric" elements are 91.6% known; The "stylistics" elements are 41.6% known, and "syntax" elements are 16.6% known by the nomophobic students. The "Scheme" and "Semantics" elements are not known at all (0%) by the nomophobic students so far. The findings are shown structurally with the Teun Van Dijk Critical Discourse Analysis elements.

It consists of macrostructures, superstructures and microstructures analysis from six nomophobic students. The students' setting is symbolized with letter and students' analysis for the first news article are symbolized with number. Themes and topics are realized in the headlines and lead paragraphs (Sheyholislami, 2001). The headlines of the two articles define the overall coherence or semantics unity of discourse, and also what information readers memorize best from the news reports. From the two articles, theme is found on all students' analysis. The theme that shows general central topic of the article has been known well by all nomophobic students (100%). The first article shows theme that give negative impacts for the surrounding society. They also analyze that the article emphasize farmer as a main and the only profession at NYIA area. The government also needs to concern more on poor society like the NYIA society that has direct impact from NYIA mega project. The article analysis also share about endanger of ecosystem which is habitat for rare birds. The article analysis, furthermore, states the merchants get more abundant benefit from agricultural result than the NYIA project. NYIA will discontinue the merchant business. The article analysis puts more pressure to government as the guilty for this problem.

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Nonverbal Communication Supervisors in The Montoring Thesis Process (Perceptions Of English Students)

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Keywords: nonverbal language, types of nonverbal, effect, motivation

The study examines the views and opinions of students who are currently and have gone through the thesis mentoring process in terms of their nonverbal communication patterns. The scope and focus are: kinesics, proxemics, oculusics, chronemics, paralanguage, and physical appearance. The scope of this study only includes Negi's (2009) 6 nonverbal types out of the total 7 types. The purpose of this study was to describe and review nonverbal communication in the context of student thesis coaching in the English study program Faculty of Educational Studies, Haluoleo University. This study uses qualitative design. The data obtained through interview and documentation were then analyzed by the theory of Miles and Huberman (2014) with step reduction, reporting, and verification. The results of this study describe that nonverbal communication with the 6 types that have been found gives meaning that the importance of communication to be able to increase student attention and motivation in constructing ideas obtained from their supervisors when the communication process is going well, and vice versa

will be an obstacle to the completion of the student guidance process when the communication process gives an impression that is not good for students. The results of this study have similarities in previous studies related to verbal and nonverbal communication in classrooms. In essence, the results show that nonverbal communication has an impact on two things, namely: positive impact in terms of improving communication, on the contrary negative impact in the communication process does not work well because student motivation decreases as the intensity of students to consult with their supervisor becomes hampered and can require more duration long ago it arrived at the level of completion of the students.

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Code Switching as Seen In Trading (A Sociolinguistic Studies Field Research)

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Keywords: code-switching, diglossia, sociolinguistic

This research is aimed at describing code-switching as seen in trading activity in Kota Solok. The objectives of this writing are to identify the form of codes which are commonly used by bilingual and diglossic inhabitants in trading activity in Solok market, to classify the code-switching which happens when the sellers and the buyers are talking to each other and to find out the factors which caused code-switching and diglossia. This research employed descriptive qualitative research in which the data was obtained from a conversation in trading activities in Kota Solok. The data was also taken from the informants' statements about the things, which were related to the coding problem itself. The data were collected by the observational method supported by note-taking and recording technique. The result found, there are several forms of code-switching in trading activity in Kota Solok market: the switching among language codes, among dialect codes and among variety codes. The diglossic situation can also be found in society. The diglossic situation can emerge when a society has two languages while each shows different functions (high and low) in a different community. It can be seen in Merantau tradition by Minang People. However, the separate locations in which low and high language are acquired immediately provide them with a separate institutional support system. L is typically used at home as mother tongue and continues to be used throughout their life. Its use is also extended to other familial and familiar interactions. H, on the other hand,

is learned later through socialization, but never at home. As suggested by Romaine (1989), H is related to and supported by institutions outside the home.

Table 1. The Use of Language Variety

Domains	High	Low
Mosque	+	
Trading activity		+
Political speech	+	
Official	+	
School	+	
Government	+	
Conversation with family Colleagues		+
Conversation with friends		+
Traditional ceremony		+
Wedding ceremony	+	
Funeral		+

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Feedback on the Presentation Performance

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Keywords: presentation skill, feedback, language skill

Presentation skill is a type of public speaking which can be in a form of speech, debates and meetings. In public speaking, a speaker can face more than two people or even hundreds or thousands of people. While in ordinary conversation, the speaker or the listener is limited to only a few people. Feedback is usually given after an activity is done. In this case, the students who were trained were given feedback by the teacher. Feedback is given thoroughly, both on the language, content and method of presentation. Research on feedback or assessment on oral presentation is underexplored. The present research is a proof supported with empirical data which suggests that the role of feedback is important and statistically assessed as significant in making performance better. The main factor that determines the quality of a presentation is the language skill. However, there are other aspects that are quite decisive such as the material or topic or theme presentation and method. There are two kinds of feedback that a teacher can give to students: oral and written feedback. While oral feedback is given during a task in the classroom, written feedback is given afterwards (NSW, 2018). Furthermore, [Gaudreau \(2018\)](#) mentions 9 types of feedback to boost students' engagement. Those are appreciation, sayback, links to resources, questions, providing next steps, providing guidance, sharing personal experiences, facilitators connecting learners, and providing encouragement. While CIRT (2018) suggests that feedback sends a message to the student that the instructor cares about the learning taking place and that it allows the student to become more engaged and involved in the classroom. The feedback in this context belongs to the oral feedback type with some specific modes such as those mentioned by [Gaudreau \(2018\)](#). The scores were then gained by Assessor 1 who did the observations directly. The scores were then analysed for its 2-tailed t-test. Data of the output analysis are shown below.

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	VAR00004	83.2000	25	5.53022	1.10604
	VAR00009	87.8000	25	5.04975	1.00995

		N	Correlation	Sig.
Pair 1	VAR00004 & VAR00009	25	.619	.001

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	VAR00004 - VAR00009	-4.60000	4.63681	.92738	6.51388	-2.68602	-6.990	.000	

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The Effectiveness of Total Physical Response (TPR) Method on Students' Vocabulary Mastery In Speaking And Writing Ability (A True Experimental Research at MTsN 5 Pandeglang)

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Keywords: Total Physical Response (TPR) method, vocabulary mastery, speaking ability, writing

This current research was carried out to investigate the effectiveness of Total Physical Response on students' vocabulary mastery in speaking and writing ability. TPR has been a popular method since 1960s (Brown, 2000). This paper uses an experimental research. Two classes of students from MTs Negeri 5 Pandeglang are selected as the experimental subject. Both of the experimental and control class consisted of 58 students. In the process of experiment, one class of students are taught by Total Physical Response (TPR) method, another class of students are taught by PPP (Present Practice and Product). To find out the effectiveness of TPR method on students vocabulary mastery, the vocabulary data pretest and posttest were analyzed using paired simple t-test. Meanwhile, the data vocabulary mastery (X) to speaking (Y1) and the data of vocabulary mastery (X) to writing ability (Y2) were analyzed using regression linear. The research reveals that TPR method was an effective method for teaching vocabulary based on the mean score pretest to posttest (57,06-71,20). TPR method was an effective on vocabulary mastery in speaking ability 66,5% .TPR method was also an effective method on vocabulary mastery in writing ability 66,5% especially in labelling object or picture as cues of writing activities.

language while students internalized the target language through body movements (Cabello,2005).

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
pretest vocabulary	Between Groups	399,823	1	399,823	1,478	,230
	Within Groups	9738,318	56	173,916		
	Total	9995,931	57			
posttest vocabulary	Between Groups	1010,000	1	1010,000	6,511	,013
	Within Groups	6755,897	56	120,639		
	Total	8774,903	57			

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Table 4.11

Description of Pretest and Post test (experiment and control class

		Descriptives				MINI-CAMBRIDGE INSTITUTE for WRITING		Minimum	Maximum
		N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound		
pretest vocabulary	experiment class	28	57,07	13,229	2,485	52,84	62,14	41	78
	control class	29	62,86	13,195	2,443	62,86	67,87	39	72
	Total	56	59,97	13,210	1,738	61,80	68,83	26	78
posttest vocabulary	experiment class	28	71,21	15,748	2,942	65,74	73,88	44	99
	control class	29	62,83	13,219	2,481	57,83	67,86	33	83
	Total	56	67,02	13,089	1,773	65,87	73,46	31	99

Based on the descriptives table, the pretest –posttest score of experiment class (57,77- 71,21) . In other side the pretest –posttest score of control class (52,86 – 62,83). Both classes have improving in their score from pretest to post test. This result is in line with previous studies. The study indicated that TPR promoted listening comprehension and increased the understanding of language input. In further experiment, TPR displayed another impact. Students not only comprehend the spoken language but also comprehend the written

Introducing Lesson Study to Improve Student Learning in the Classroom

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Keywords: lesson study, student learning, research lesson, teacher professional development

The 2013 National Education Curriculum requires students to be the center of teaching and learning process in the classroom. Having Student Centred Learning (SCL) as the teaching approach, the implementation of the curriculum implies that students should be involved actively during the transfer of the knowledge in the classroom. In addition, students' engagement during the learning process is paramount, and the teachers are supposed to be the students' facilitators of learning. However, the phenomena in which students are less interested in attending the lesson and therefore affecting their learning in the classroom are commonly found in many Indonesian schools. Many students do not learn much from their classroom activities, and consequently they cannot get the most benefit of their study. This study is an attempt to investigate student learning in the classroom using collaborative teacher professional development called lesson study. Underpinned by qualitative research design, the study employed ten secondary teachers who collaboratively conducted 'research lessons' in which a model teacher

delivered the lesson in the classroom and other colleagues observed the student learning. The data obtained from teacher observation and student evaluation revealed positive indicators of student learning during the teaching and learning process. Thus, despite lesson study is regarded as an initial professional learning activity for the teachers, it is worth to maintain its sustainability in the school. In order to make lesson study implementation more effective, the Plan and See sessions were conducted at the same time. This model of lesson study implementation has actually been practiced by many lesson study groups in Indonesia (Suratno, 2012). Focusing on students' learning, the steps in lesson study bring many benefits for the teacher participants starting from Plan, Do, and See.

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Scrutinizing Metadiscourse Functions in Indonesian EFL Students: A Case Study on Written and Spoken Discourses

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Keywords: *Metadiscourse analysis, linguistic features, EFL students, discourse analysis, academic writing, academic speech*

In recent years, metadiscourse study has been used to describe the linguistic features applied in academic English domain, which mostly focused on written data, such as academic essays, research articles, etc. The spoken discourses such speech and classroom presentation remain unexplored. Therefore, this paper aims to investigate the potential similarities and differences between written and spoken English and comprehensively discuss these distinctive features. We employ the metadiscourse theory by Ken Hyland (1994, 2000) which unfolds two metadiscourse ways of analysis: the taxonomy of interactive and interactional metadiscourse markers. This theory is important to understand how the social engagement occurs between the speaker/writer and their audiences; how well their discourse is being understood. We also employed qualitative research approach, through which the data were gathered by observing 8 students' presentation and 70 writing tasks in Academic Writing class. The finding shows that the interactive markers

are used more than the interactional devices in both spoken (1616) and written discourse (278), while the interactional markers found were 855 cases in spoken and 133 written discourses. This result reflects the students' preference in conveying their audience by connect and highlight their arguments rather than showing their commitments and the audience's involvement in the text.

This study showed that interactive and interactional metadiscourse markers (Hyland, 2005, 2009) frameworks can be a pioneering tools to lead students better understanding of metadiscourse markers.

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An Analysis of Lecturers' Politeness Principle and Students' Compliance in EFL Class at Islamic College

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Keywords: politeness principles, English for Foreign Language (EFL), student's compliance, teaching and learning process.

The aim of this study is to find out the politeness principles used by the teachers and students, and how the politeness affects to students' compliance. The focus is on directive and expressive speech acts in EFL Class. The subjects of this study were three lecturers and the students of three English classes. The data was gathered by video audio by recording the teachers' utterances and the students' compliances to the lecturer, in order to find the lecturer politeness principles and the students' compliances to the lecturers' utterances. In the data analysis, it is found that 1) the teachers used ten maxims in their communication to the students. In line with this, Leech (2014) mentioned that there are ten maxims used in politeness principles. They are tact maxim, generosity maxim, approbation maxim agreement maxim, Obligation (of S to O) maxim, sympathy maxim, modest maxim, Obligation (of O to S) maxim, Opinion reticence maxim, and feeling reticence maxim. 2). The lecturers

dominantly used tact maxim in their directive speech acts to the students. The findings of this study will probably give insights into the pragmatic and conversational rules of EFL. Politeness involves minimizing the cost and maximizing the benefit to speaker. Theoretically, the politeness principle consists of ten maxims namely tact maxim, generosity maxim, approbation maxim, modesty maxim, agreement maxim and 10 sympathy maxim. The lecturers used Politeness principles in their speech. From the observation conducted in English class at Islamic College Jakarta, it was found that the teachers used ten types of politeness strategies in their communication.

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The Power of Myths on Environmental Preservation In Bali

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Keywords : Myth, Ecolinguistics, Social, Environmental preservation, Bali

This research aims to find out the myths' power relating to environmental preservation in Bali. Myth is human creation that is rich of social and cultural value within it to describe phenomena around them. Myth still exists even if it turns into behavioural reference in Bali. Moreover, Balinese rites are very strong bounding people although modernization develops rapidly. It is assumed that myths ecology-related correlate to semiological system that covers signifier, signified, and sign which are potential influencing human perception and behaviour to preserve environment. This research uses descriptive-qualitative approach. The data is collected by depth-interview method and probing technique. The three dimensionality of the social praxis that is proposed by Bang & Døør can be considered as

theoretical frame of understanding and explaining the environmental constitution of language (Lindø & Bundsgaard, 2000). Ecolinguistics' framework especially social praxis related that consists of three dimensions, namely a bio-logical, a socio-logical, and an ideo-logical dimension, and also culture approach contributing in analyzing data. It concludes that myths' existence is very strong; it is powerful relating its impact to human, but powerless toward environment preservation.

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The Approach of English Language Learning: Study Case Grammar

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Keywords: approach, English, case grammar.

Nowadays, English learning still indicates to English grammar approach to students and make students find their difficult to understand their meaning. The ability of English language as a second language in English learning at the class make the students find difficult because of their mother language that is Indonesian language. Therefore, it needs to make English grammar approach by study case grammar (Fillmore, 1968). This study has been done on the student in Dhyana Pura University, English literature program in the 4th semester in the academic year 2018/2019. There are 13 students for the sample of this research by finding their sentence and based on the case grammar itself. Method of collecting data is done by observe the student and giving material of case grammar and give an activity by doing exercise to write case grammar from the students. The data is analyzed by

checking and making correction of students' sentences. In this study case grammar, the students gave the examples of verb words mentioned by lecturer and the students made sentence and finally, made the correction for students. The results of the study indicated that there were 9 (nine) of study case grammar, they are agentive, objective, instrumental, dative, locative, benefactive, comitative, factitive and time. In case of Agentive, example: *Fajar prepared the table*. This sentence for Agentive described Fajar (a waiter) as a subject of the sentence.

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The Pragmatics of AIN'T within Academic and Social Context

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Keywords: pragmatics; politeness; camaraderie; informal English; AIN'T.

This paper explores the form, the meaning, and the function of the contraction AIN'T, with the corpus data retrieved from English-affiliated URLs or Websites (web-data), through interpretive techniques and a coding analysis. The utterance AIN'T belongs to non-standard or informal English, with the casual, incomplete, shorter, and cut-down aspects, which is unacceptable in formal writing. AIN'T represents or is derived from the forms AM NOT, IS NOT, ARE NOT, HAS NOT, HAVE NOT, DO NOT, DOES NOT, DID NOT, and the others. The meaning of AIN'T implies different aspects of meaning, i.e. informality, topic area, low social class, emphasis, and content. The utterance AIN'T is part of close language, or is used for close people for friendship or camaraderie. AIN'T belongs to informal utterances, as it is incomplete, shorter, cut-down (or contracted) from other forms. The utterance AIN'T should be taught academically in classrooms or other teaching and learning encounters as informal language with its various derived constructions, and students or learners should be made aware that AIN'T is part of close language which is used to close people for friendship or camaraderie within interpersonal or social context. The function of AIN'T is bound to interpersonal context. This context has been elaborated from two tendencies of politeness, distancing and closeness, which is in line with theories of Goffman's negative and positive face (1959), Brown and Levinson's negative and positive politeness strategies (1987), Renkema's respect and solidarity politeness (1993), and Jumanto's politeness and friendship or camaraderie (2006), and types of hearer in the theory of power and solidarity by Brown and Gilman (1968). Jumanto (2014a; 2014b) elaborates all the theories above into the so-called distant language and close language. Distant language is spoken to superiors for politeness, while close language is used to close people for friendship or camaraderie. To a broader

extent, as accounted for above, superiors may also refer to public in general, or potential strangers, or other hearers in formal situations, while close people may also refer to those a speaker has known for a quite long time, and thus, has shared common knowledge and interests within a closed context of friendship, solidarity, or camaraderie. Distant language elaborates formal, indirect, non-literal utterances, with safe and common topics, while close language involves informal, direct, and literal utterances, with any topics: safe or common, personal, and private. Formal utterances tend to have more complete, longer forms, and are in a good order, while

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The Semiotics Role in the Tourism Branding Trough Social Media Of Wonderful Indonesia Bali Edition

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Keywords: tourism; semiotics; social media; meaning; Bali

This paper investigates the use of semiotics in the branding of Bali as a tourism destination through social media specifically via YouTube. Tourism Destination branding has assumed an importance aspect over the past few years. Social media and semiotics have facilitated its rise. Semiotics corresponds to visible signs that, in this context, may be deployed as a means of attracting a customer's attention and its effective utilization can make a difference to a destination choice. Moreover, the branding of a destination may be affected through social media. It is a relatively effective way to promote a destination and attempt to attract visitors. A conceptual framework was developed and content analysis was applied to promotional video of Indonesian Tourism Bali edition on its YouTube channel in order to identify the recurrent categories of attributes visible in imagery propagated. This paper employs the Semiology Analysis of Barthes (1974) to refine concepts like reconstruction of social reality, touristic representation and experience. Barthes agrees that the indicator becomes meaningful together with its environment and apart from its environment its meaning will turn out to be relative

which was suggested by Saussure (1916). On the other hand, this paper also uses Peirce (2014) statement about defining the indicator as a triadic process. The finding stated as an attempt to decipher the Indonesian Tourism way of challenge the symbolic competition. That find out the tourism strategy is based on reconciling the Western values such as technology, comfort, and the values of the East: hospitality, timelessness, exotics, etc. The current tourism promotional videos highlight a local color which auto-Orientalized the tourism of Bali. This type of promotion, when considered as the non-monolithic and differentiated structure of tourism, has some drawbacks in the era of symbolic competition.

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Teacher Strategies in Dealing with Students' Classroom Misbehavior: A Case Study at SMP Negeri 4 Narmada in the Academic Year 2016/2017

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Keywords: Misbehavior, Classroom, Students, Teacher Strategies

The purpose of this study is to find out and classify students' misbehavior in the classroom and teacher strategies to deal with them at SMP Negeri 4 Narmada in the academic year of 2016/2017. Questionnaire was given to the sample of population which comprise 80

students in 3 classes and 21 teachers. The result of the data analysis shows the types of misbehavior occur in the classroom are *attention-getting* (45.5 %), *power-seeking*(33.1%), and *inability showing behavior* (15.8 %), and *revenge-seeking* (5.5 %). This finding

resonated with Sun and Shek's (2012) findings that indicated that the most common and disruptive behavior was talking out of turning which also included as *attention-getting* behavior. Meanwhile, the strategies that the teachers use to deal with students classroom misbehavior are *reprimand & punishment* (53.5 %) then followed by *pre-empting misbehavior* (41.6 %) and the

last is *pastoral care* (26.1%).

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The Implementation of One to One Consultation as a Teaching Technique: A Case Study at An English Language Education Department in Indonesia

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Keywords: teaching, feedback, consultation.

Consultations have been common in medical and psychological practices. The consultations are between doctors and their patients and between psychologists and their clients. As they can share intensively the issues, they can most likely solve them better, so such practices have been continuously conducted. In education field, universities in English speaking countries provide one to one consultation to students from the countries whose English is as foreign language or second language to assist them solving students language barriers. Bringing one to one consultation techniques in classroom teaching practices is less common. This study aims to investigate the implementation of one to one consultation in the process of teaching learning in an English education

department in Yogyakarta, Indonesia. In addition, it may also reveal the strength and weakness of such practices. The data were obtained from in-depth interviews to 5 five teachers and 5 students. The participants are those teachers who have implemented one to one consultation as one of the activities in their teaching practices and students who have joined the class that imposed one to one consultation activities. The findings indicate that teachers have set a good planning before teaching, carried out decent one-to-one consultation activities in the teaching processes, and resulted in better evaluations toward the delivered teaching materials post teaching activities. The one-to-one consultation activities also share several benefits and pose some weaknesses.

The Effect Of Dictogloss Technique on Improving Students Writing Skill Of Descriptive Text At The Tenth Grade Students of SMK Muhammadiyah Kudus In The Academic Year Of 2017/2018

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Universitas Muhammadiyah Kudus

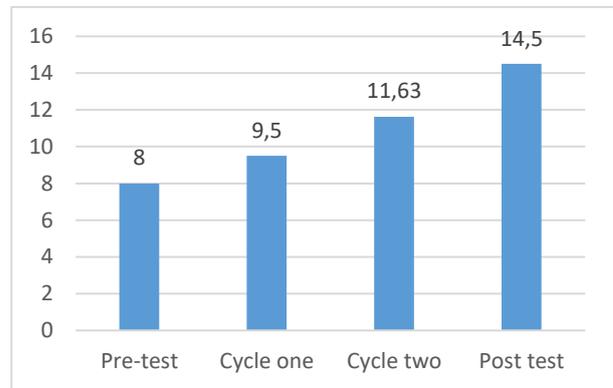
Keywords: Dictogloss technique, descriptive text, writing skill.

The aim of this study is to examine the effect of dictogloss technique on improving the writing ability of students on descriptive text at tenth grade students of

SMK Muhammadiyah Kudus in the academic year of 2017/2018. This study was classroom action research using model of Kemmis dan McTaggart (1988) containing reconnaissance, planning, action dan

observation and reflexion conducted in two cycles. The total samples of this study were all students of tenth grade of SMK Muhammadiyah Kudus consisting of 70 students. Later on, the data were collected through observation, interview and tests using interview guidelines, observation sheet and English writing rubric and then analyzed using descriptive analysis. This study showed that the use of dictogloss technique was able to improve writing skill of descriptive text for students. It can be seen from the different means from pre test and post test in the way that mean score of pre test was 8, in the cycle one was 9.5, in the cycle two was 11.63, and in the post test was 14.5. Furthermore, based on the application of its technique the students were able to generate their idea to produce well organized descriptive texts. They were also able to use the appropriate vocabulary, grammar, punctuation, spelling and capitalization in the writing. During the teaching and learning process they also showed positive responses towards the lesson, enthusiastically joined the teaching and learning activities and did the task well. Based on the result of the pre-test, cycle one and cycle two test, and post test. Harmer (1991) adds Dictogloss is an

activity which should involve students and teachers and that can be useful in the learning process. The students have improvement in the average score in the class which is shown in the below diagram:



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Ogan Language (Pegagan Dialect) in Ogan Ilir Regency, South Sumatera: A Diachronic Perspective Review

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Keywords: diachronic; phonological; lexical; innovation; retention; Ogan language; Pegagan dialect; Proto Austronesia

This paper analyses the diachronic study of Ogan language (Pegagan dialect) as one of the language in Indonesia, which can be called as *Nusantara* language (Parera, 1986) and belongs to proto Austronesia. This language is spoken by people in Regency of Ogan Ilir (Ogan Komering Ilir/OKI), South Sumatera. By using diachronic study, this language is analyzed by using perspective of phonological and lexical form. This paper uses library research to analyze. Ogan language (Pegagan dialect) deserved to be studied because it has uniqueness, that it has lots of dialect and sub-dialect, compared with

other languages in Sumatera island. The result showed that there are retention and innovation in Ogan language, especially Pegagan dialect. Furthermore, it can be concluded that Ogan language still retains its proto language but in the same time it has developed new vocabularies.

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Topics and Reasons for Violating the Maxim of Quantity when Implicature is generated

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Keywords: Maxim, Maxim of Quantity, Implicature, and Cooperative Principles

Testing a theory is required to give a room for the theory to improve and develop. This research is conducted for this reason. Specifically, this research is designed to identify the topics and reason of the violation of the maxim of quantity when the implicature is generated to complement the writer's earlier research. The data were collected by taking notes of the implicature produced by the participants during lunch time at Universitas Katolik De La Salle Manado. The result shows that in the violation of the maxim of quantity, participants use implicature mostly to share information. The most significant topics in the violations of the maxim of quantity are jobs and people. The fact that implicature is generated in different kinds of context and reasons

indicating that the users of Manado Malay language use implicature frequently in daily communication. This research confirms earlier research indicating that implicature is often generated in general social communication (Eisterhold, Attardo, & Boxer, 2006). It turns out that in Manado Malay society, implicature is generated not only by those who have higher education but also those who do not attend higher education.

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Constructing Tag Question in Sundanese: A System Functional Typology

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Keywords: Tag question, Sundanese, Systemic functional typology, Corpus

Tag question is commonly accepted in literature and it functionally conveys interpersonal meaning relating to the communication and stance. Studies on tag question are essential as tag question is used to indicate not only interactional position of speaker but also the response is expected from the hearer (McGregor, 1997). Interfacing with the typological study is employed to reveal the construction of tag question in Sundanese within distinctively marked element. This current study is systemic functional typology focusing on interpersonal meaning. This study uses DIY (do it yourself) which is one of method to analyze an unlimited data. It is a manual way to representatively serve the large data aiming to analyze a specific case. The data is taken from the collected articles online. It is employed within 2 weeks consisting of 20 texts which contained 100.000

words from an update period. To get the analysis, the researcher uses Antconc software provided the instruments in order to be easily typed in KWIC. After working on it, the data is analyzed through systemic functional linguistics/SFL and typologically interfaced by Greenbergian approach in order to generalize the system of tag question in Sundanese. The tentative result shows that tag question is significantly found more frequent in spoken language than written text and typologically found in private and informal setting. To deepen the interpretation, it delineates the differences and similarities between the constructions of tag question extracted from the corpus.

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Linguistics Features Comparison of Southeast Asian Languages

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Keywords: Linguistic Features, South East Asia, Languages

There are many languages from many different language families interacting in the Southeast Asia area. Hence, the features of languages in this area can also vary. Here, 7 linguistic features, namely 1) word order, 2) order of ad-position, 3) order of genitive, 4) order of adjective & noun, 5) order of demonstrative and noun, 6) order of numeral & 7) noun and order of relative clause among 5 languages in Southeast Asia area were compared. The 4 languages will be presented here are Hmong Mien, Thai, Vietnamese, Mandarin (Chinese), and Indonesian. First, each linguistics features will be presented in the focused languages in their own characteristics. According to Kasevich (2010), there are three main levels of speech perception: psychoacoustic (perception of physical characteristics of a speech signal), linguistic (phonetic, lexical, syntactical, and semantical representation of a speech signal) and cognitive (making information hypothesis about the structure of a speech sound). Second, they will then be translated into their own script and third, they will be translated into the Latin alphabet but still in the focused languages. Fourth they will be translated roughly in English to make a gloss, and fifth the rough translation/gloss then to be translated into the English free translation, adjusted with English characteristics. From a genetic point of view, the

languages in Southeast Asia are varied but they exhibit similarities in phonology, morphology, vocabulary, semantics and language usage. It is showed that these languages share both similarities and differences, but by seeing the characteristic of the features in these languages, we can see that overall, languages in the mainland to the insular area are identical. It can be seen from the word order, where all languages presented here show a similar pattern of Verb-Object. In several features such as order of ad-position, order of adjective & noun, order of demonstrative & noun and order of relative clause, almost all languages share the same pattern, except for Mandarin which shows different patterns in terms of these features, which potentially is due it's geographical distance from the Southeast Asia area compares to other languages. The absence of major differences between these languages might confirm and lead us to the notion of these areas as a linguistic area.

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Student Self-Disclosure through Instagram Posts to Enhance Classroom Interaction

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Keywords: self-disclosure, education, classroom interaction, social media, Instagram

Self-disclosure has been widely researched as a way to enhance interactions in the classroom and to improve the overall learning experience. Student self-disclosure can be expressed through various media, one of which is social media. Instagram, an indisputably visual platform of social media interaction, has become immensely popular among Millennials and Gen Z-ers. This study aims to analyze the visual aspect of self-disclosing posts from 180 students in two universities in Bali Indonesia, under the Instagram hashtag of “#myworld”, conducted at the beginning of a semester term. In order to analyze the self-disclosing visual posts, the authors devised together a mechanism to code the typography and the general themes of the students’ Instagram posts. The typography was based on the classification by Morton (in Harper & Harper, 2006): descriptive, evaluative, and topical. Descriptive self-disclosures are marked by contents that depict factual information (thoughts, experiences, activities, etc.), while evaluative self-disclosures depict feelings and judgments (including likes/dislikes, preferences, etc.), and topical self-disclosure involves discussions and depictions of sensitive topics such as sexual orientation, political stance, etc. (Chen, 2014; Suo et al., 2008; Harper & Harper, 2006). Utilizing content analysis method employing two coders with substantial inter-rater reliability (Cohen Kappa >

0.61), the study finds that the typology of self-disclosure falls into three categories: descriptive, evaluative, and topical, with descriptive self-disclosure as the clear majority (82.8%). The themes emerging from the self-disclosing posts include (from the highest prevalence): family, friends, religion, hobby, self, significant other, things/possession, and work/study. Further qualitative inquiry reveals that self-disclosure through social media is perceived to have lower risk than direct, face-to-face disclosure. It has the potential to be used to get better acquainted to one another with lower perceived risk.

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Understanding Teachers’ Knowledge, Skills, and Principles of Language Assessment: A Survey on

Teachers' Language Assessment Literacy

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Keyword: Language assessment literacy, assessment knowledge, skills on language assessment, principles of language assessment

Language Assessment Literacy (LAL) refers to the knowledge, skills and principles of language assessment and evaluation of teachers. This research investigated the language assessment literacy of teachers in a higher education context in Indonesia. To conduct the study and gather the required data, the researcher employs a self-rated survey adapted from descriptors of LAL for language teachers developed by Giraldo (2018) and semi-structured interviews to language teachers. The survey was distributed to 30 (N=30) teachers in a language faculty in a university in Indonesia, and interview was carried out to several participants. The result reports knowledge on language assessment of teachers that includes awareness of applied linguistics and theory, own language assessment concepts, and concepts of language assessment. Then, their instructional skills, design skills for language assessments, skills in educational measurement, and technological skills will be explained. Finally, the awareness of and actions towards critical issues in language assessment owned by the teachers will also be explored. Teachers in this study reported that they are aware of issues in critical language assessment and took action in order toward unfairness and unethical issues in

language assessment. This finding is similar to the findings by Berry, et. al., (2019) that stated that participants in their study consistently analyzing the impact of the test-based assessment toward their students. However, this finding was conflicting with Sultana's (2019) research that reported that teachers in his study were not aware of the quality of a standardized test and its impact to the students. The difference finding regarding the principle component can be caused by the teaching context where the teachers in both the current study and Berry, et.al. study taught in university level where teachers have more independence in deciding their assessment. Whereas Sultana's participants taught in secondary levels where in many contexts, the assessment policy was often regulated by the government so that teachers only have limited independence to set assessment.

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The Students' Perceptions on Test of English Proficiency as Graduation Requirement

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Keywords: students' perception, test of English proficiency, graduation requirement

TEP, Test of English Proficiency, is a type of English test which is held regularly by Language Center (LC) of Universitas Swadaya Gunung Jati (UGJ) Cirebon based on the Rector's decree. It becomes one of the requirements for the students who are going to graduate from higher education. This research intends to 1) explore the students' perception on Test of English Proficiency and 2) find out about how is the implementation of TEP. The writers conducted a case study with 288 students as the respondents. They come from different majors and faculties. There are four techniques of collecting data: 1) interviews, 2) observation, 3) questionnaires, and 4) documents. To get the valid data, the writers used triangulation of sources which is functioned to cross check and compare data. An interactive model (data collection, data display, data reduction, and conclusion) is used to analyze data. The

research findings reveal that the students' perceptions on TEP can be classified into three aspects: TEP activity, test instrument, and treatment while the implementation of TEP such as registration system, information system, proctoring, and facilities get satisfactory responses from the students. Hsu (2009) argued that it is essential to ensure the validity and reliability of the tests employed. Furthermore, she explained that Validity refers to the extent to which a test measures what it is intended to measure and not what it is not designed to measure and reliability is essentially concerned with how consistently the test does what it is supposed to do.

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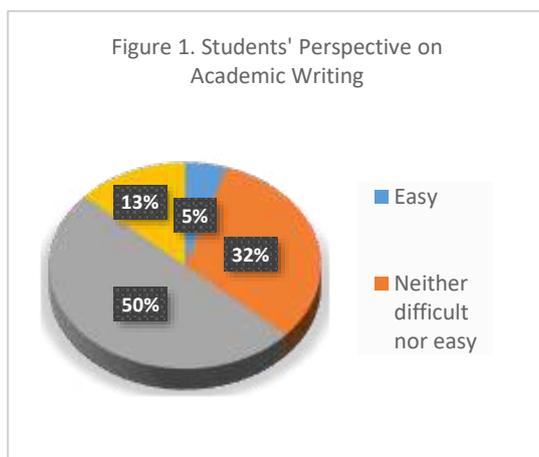
Millennials' Problems in Academic Writing: A Study in EFL Setting

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Keywords: academic writing, writing difficulties, millennial students

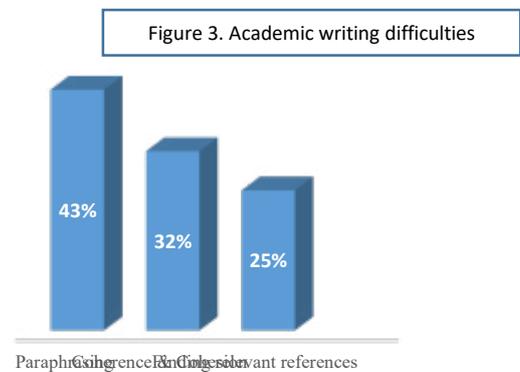
This study aimed at investigating two components: 1) The major difficulties encountered by millennial students, and 2) The main factors that caused the difficulties. Data were collected by using questionnaires with closed and open-ended questions to 60 undergraduate students of the English Education Department. The results indicated that 50% of participants found academic writing difficult, in which only 18% of them got A for their Academic Writing score. The major problems found are they have difficulties in expressing other writer's idea into their own words, difficulties in organizing texts coherently, and difficulties in finding relevant references for their writing. The primary factor that underlies the difficulties is lack of detailed explanation about academic writing consideration in the classroom. The students did not get enough explanation which led them to learn from the internet. Nevertheless, the internet can be both beneficial and harmful for the participants. Since they can find many sources in the internet, it confused them to choose the most appropriate references for their writing, in which they sometimes ended up with just copying without filtering the sources. Therefore, this study suggests teachers to provide students with guidance in identifying relevant sources and witness more practices to the students.



The reason for this attitude might be the lack of background knowledge about the conventions of academic writing (Al Badi, 2015).

Figure 2. Students' score in Academic Writing Course

Score	A	B+	B	C+	C	D
Percentage	18%	27%	30%	15%	8%	2%



The main reason why some students found this was difficult is they might be unfamiliar with their lecturer's expectations to select the appropriate literature, and students' reluctance to ask the lecturer (Frank, Haacke, and Tente, 2003).

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EFL Teachers' Professional Learning on Instruction Innovation, Research, and Publication

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Keywords: development, EFL, learning, professional, teachers

With a view to quality teaching and learning, EFL teachers need to professionalize themselves upon their formal education at teacher colleges. A number of ways are open to teacher professionalism. This study is an exploratory survey to probe EFL teachers' views of EFL teachers at the lower secondary level of education on the areas for professional learning. A number of 455 EFL teachers of the lower secondary level of education are conveniently drawn from a number of towns as a sample of the present study representing experienced EFL teachers in East Java. A set of reliable questionnaires ($r = .633$) has been developed to collect data on their idea pertaining to aspects of developing innovative instruction, performing classroom action research, and writing research-based articles for publication. The results of the present study are discussed with respect to EFL teacher normative responsibilities and concepts on professional development. The results of the study indicated that teachers are aware, as part of their beliefs and practices, of always learning to improve themselves by reflecting their ways of teaching through empirical studies as supported by *Borg (2003)*, *Marzano (2003)*, *OECD (2008)*, *Mizell (2010)*, *Xu (2012)*, and *Scott & Gani (2016)*. Moreover, the teachers realized that conducting such studies provides them more benefits for their career enhancement as well as for the students' betterment as seen in Table 1 underneath.

Table 1 Benefits of Conducting CAR

No	Areas of Benefits in Conducting CAR	Fully Agree		Agree		Disagree		Fully Disagree	
		f	%	f	%	f	%	f	%
1	To Improve Teaching Practice	14	3.1	27	5.9	10	2.2	-	-
2	To Provide Feedback on Teaching Weaknesses	9	2.0	35	7.7	24	5.3	1	0.2
3	To Widen Perspectives in Teaching- Learning Practice	3	0.7	19	4.2	9	2.0	-	-
4	To Enhance Confidence in Teaching	7	1.5	34	7.5	22	4.8	1	0.2

Pedagogical and theoretical implications of the findings are drawn with reference to the context of English teaching.

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The Teachers' Belief towards English Learning Activities in the Early Childhood Education

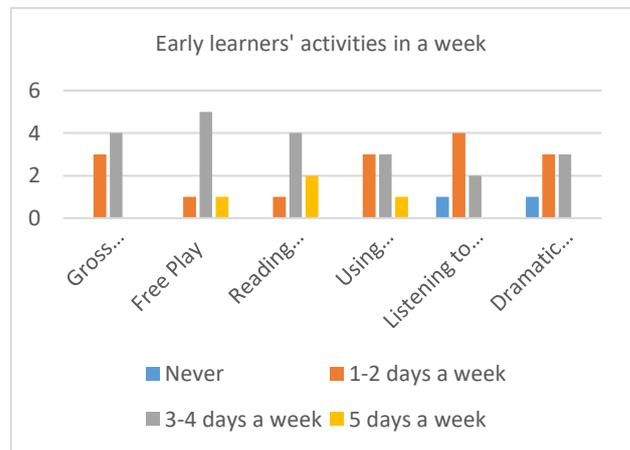
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Keywords: Teachers' belief, Childhood education, Montessori

This article addresses teachers' belief in teaching in early childhood education. It outlines their beliefs and the real problem that has been found in the real field, which the author sees as an interactive and interesting teaching technique for the children pedagogical practice especially in Montessori school. This research discusses the importance of the teachers' understanding of their beliefs and how they overcome the real problem in the classroom. Alstad & Tkachenko (2018) stated that it is compulsory to manage the learning environment. Therefore, to maximize language learning opportunities for the children, the teachers chose a holistic approach, combining both direct interventions in teacher-led activities, and more indirect interventions that allowed the children to learn the language experimentally, to try out the new language in meaningful contexts of communication. The participants of this research are the teachers from one of Montessori school located in Yogyakarta. By using the questionnaire and doing the interview, the researchers gained some points that become a matter. The results shown that every teacher has their own way to overcome the problems whether the communication between teachers and students in using English as their one of the way to communicate or the problems due to lack of parents' awareness towards their children's needs and some advice or suggestions that given by the researchers are really beneficial for their

additional knowledge. The first question asked the information about the teachers' majority either in English education or others. Here the researchers will show the charts and diagram from the answers. The second part of the questionnaire consists of two main questions about students' activities.



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English as a Lingua Franca: Narratives of Three Filipino Teachers

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Keywords: English as a lingua franca, multilingualism, narrative, pre-service teacher

This article explores the experiences of three pre-service English teachers from Philippines who were assigned in a private elementary school in Indonesia as part of a pre-service teacher exchange program. Working in a context that did not share the similar first or second language, the three teachers used English, their second language, as a lingua franca in communicating with the students. Drawing upon data from their teaching diaries, class observation, and in-depth interviews, this article reveals that using English in the classroom was challenging because English was neither the first nor the second language of their students. Three narratives from the teachers are also recounted to shed some light on their strategies to bridge the communication gap. The findings further indicate that their participation in a short Bahasa Indonesia for Non-Native Speakers program played an important role in their language adjustment. The practice of using two or more languages in an interaction is commonly known as code switching, but Jenkins (2015) argued that the term insufficiently treat multilingualism

merely as one of ELF characteristics that is used for limited purposes. The use of languages other than English should not be discussed within the scope of 'English' as a lingua franca because English itself is included in the concept of multilingualism along with those other languages. Therefore, Jenkins (2015) proposed 'English as a Multilingua Franca' that she defined as "[m]ultilingual communication in which English is available as a contact language of choice, but is not necessarily chosen" (p.73). This definition implies that English is not the only option in interlingual communication, and there may be other languages (or aspects of language, such as vocabulary or expressions) shared among interlocutors that should be taken into account in understanding how a meaning-making processes occur in ELF communication.

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Students' Perceptions of Politeness Strategies for Indonesian EFL Learners in 4.0 Era

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Keywords: Politeness Strategies, Indonesian EFL Learners, International Communication, Industrial Revolution 4.0

English has the primary role as a communication tool in industrial revolution 4.0 because it was an international language. In this era, the developments of technologies facilitated people around the world to communicate through social media, email, website, etc. Through those communications, they can enhance their business, developing their studies, or expanding their relations. But, every country has its norms in conversation, so that politeness strategies are the core component in achieving the success of communications. This study was one of qualitative research which primarily focuses on exploring the student's perceptions on the role of politeness strategies for Indonesian students in using English for international communication. The data was collected by delivering the questionnaire to the 40 students in SMA Negeri 1 Kretek Bantul, Yogyakarta, Indonesia, and interviews with some of them. The data of this study were analyzed using a content analysis approach. The results described that the students consider politeness strategies as their policies during the

communications. In line with this, Heryanto et al. (2017) and Mahmud (2018) found that politeness strategies are useful to create a positive attitude of the students. The implications of this study were to help the teachers identify students' need in the development of politeness strategies and to prevent miscommunication during the international communication process.

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The Gender Representation in English for Informatics Textbook

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Keywords: Gender Representation, Textbook Evaluation

Textbook is an important tool that cannot be separated from the process of teaching English. Many teachers in Indonesia choose to make their own book for some reasons. However, the quality of the book is sometimes questioned and many textbook writers were not aware of gender representation in making textbook. Therefore, textbook should be carefully selected to provide proper materials for the learners. This study was intended to evaluate the gender representation in English for Informatics textbook used in teaching ESP for Informatics students. The framework employed in this study was proposed by Porreca. There are some aspects to evaluate gender representation namely the omission rate, firstness, occupations, nouns designating for female and male, masculine generic construction, and

adjectives. The result of the study showed that males are

represented more in some aspects. Women's inadequate role in society is affected by the culture. According to Gharbavi and Mousavi (2012), culture within the society where people live contribute on shaping people's expectations about the job type women and men should do and how they behave in society. In Indonesia, women and men stereotype in getting job is still strongly felt. Some jobs are intended and associated for men or women only.

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The Representations of Persuasive Function in Food and Beverage Service

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Keywords: English for Tourism and Hospitality, Persuasive Function, Language Functions, Food and Beverage Service

Language is an arbitrary symbol of sound system, which is used for social interaction, consists of form, meaning, and expression. The study of language (Linguistics) focuses on both aspects of micro and macro linguistics. Another branch of linguistics, called Applied Linguistics, is now gaining popularity as it is frequently implemented in language learning, i.e. TEFL, TESOL, and ESP. This present study aimed to identify the use of persuasive functions in the context of Food and Beverage Service. The persuasive function is used for persuading and affecting the hearer (i.e. the customers) to try or buy the products offered. Focusing on the study of English for Tourism and Hospitality (ETH), this paper applied the phenomenology qualitative methods. The data were collected through observation, and analyzed using text analysis. The result of the analysis showed that persuasive functions were represented through micro functions, i.e. 'offering', 'promising', 'suggesting', and 'persuading'. Explanation of the menu consists of descriptions of how to cook (methods of cooking), ingredients, and the taste that show characteristic of the dishes offered. In explaining the concept of the restaurant, the server tried to insert suggestions or recommendations on food and beverages that become the signature menu. This could be seen in the use of the

phrase "And this is good with the side dishes like the Nan or some rice". The demonstrative pronoun 'this' in this sentence referred to the two foods mentioned earlier, namely Grilled Scallops and Bethel Leaf Chicken. By using these sentences, the server tried to influence the guests to choose complementary dishes in the form of Nan or rice. The server's recommendations were only in the form of suggestions that guests did not have to comply with. Data (1) and (2) represented the characteristics of persuasive function. The use of this passive form is to emphasize more on what is done, because guests are certainly more interested in the method of cooking a particular dish rather than the person who cooks it. It should also be stated here that in general foodstuffs can be categorized into 1) seafood consisting of fish and shellfish; 2) meat consisting of poultry, beef, veal, lamb, and pork; and 3) vegetables. Drinks can be classified as non-alcoholic drinks and alcoholic beverages. Nonalcoholic drinks consist of hot drinks (coffee, tea, hot chocolate) and cold drinks (juice, soft drinks). Alcoholic beverages consist of wines, spirits, cocktails, liqueurs, and beer (Talalla, 2008).

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Written Feedback on Students' Academic Writing

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Keywords: feedback, written feedback, academic writing

Written feedback in academic writing becomes an essential factor that enables teacher and students to interact with each other for the improvement of the writing. This research aims to find out the types of written feedback the teachers use for students' academic writing, the most useful feedbacks perceived by students to help them improve academic writing, and the students' perception about effective written feedback. This current research employed a descriptive qualitative research design. It used interview as method of data collection. Participants of the research were five students in an English Education Department in a private university in Yogyakarta. The students were in the process of writing their thesis as the fulfillment for undergraduate degree. The research found that, regarding to the types of written feedback, there were three types of written feedback i.e. symbols, note, and error correction. Moreover, this research found that written feedback related to the grammar was the most

useful written feedback perceived by the students. The last, based on the students' perception, to be effective, written feedback should be understandable and detailed. Error correction is not suggested to be done by the teacher. Truscott (1996) stated that error correction was not only useless but it also harmful. It is useless as it only allows students to know the correct form without letting them take the process of learning. It is also harmful as students may be too dependent to the error correction, so they have no enough effort to learn from the mistakes.

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Teaching 21st Century Skills: Investigating the Strategies Implemented in EFL Classrooms

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Keywords: 21st century skills, teaching strategies

Instilling the 21st century skills (communication, collaboration, critical thinking, and creativity) in EFL classrooms as an attempt to equip the students to compete in the global era can be demanding. As a foreign language, teaching English for Indonesian EFL students itself may carry its own issues requiring teachers to deal with. Moreover, teachers have greater challenges to select appropriate teaching strategies incorporating the required language and the 4 Cs skills. This study aims to investigate teaching strategies implemented in Indonesian EFL classrooms to facilitate the aforementioned skills. This study is descriptive qualitative having 6 teachers of a language training center of a private university in Yogyakarta selected as the participants. Semi-structured interviews were

conducted to gather the data needed. It is expected that the findings of this study can serve as a reference in applying strategies in teaching English as a foreign language to facilitate the 4 Cs skills necessary for the EFL Indonesian learners to compete in the global market era. In addition, Amin (2016) believed that in the current era, teachers have multiple roles in teaching. Affective factors regarding students' emotional issues including motivation must also be taken into account.

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Exploring Learners' Perceptions and Experiences of Native English Speakers' Roles in Learning Process: A Case Study at Dila Samawa English Club Sumbawa Besar

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Keywords: perception, experience, native-English speaker.

This current study focused on exploring the learners' perceptions and experiences of native-English speakers' roles in learning process. Basically, perception is classified into some types; it depends on five senses, memory, fantasy, thing, and words (Kaharuddin Putra, 2011). Based on the elucidations above, it can be concluded that perception is delineated as an action of self-consciousness of one's surroundings through physical impression, which indicates a personal's ability to understand. Perception toward the roles of native speaker in learning process of English language can affect the learners' efforts or willingness to learn English. Learners' perceptions about the existing of native speaker in learning process can improve and increase

their English proficiency and choice the best strategies in mastering the language. This exploration was guided by the following questions: (1) What are the learners' perceptions and experiences of native-English speakers' roles in learning process? (2) How do the learners perceive and experience the native-English speakers' roles in learning process? A case study method was employed. The participants were all of the English learners who continuously joined Dila Samawa English Club in Sumbawa Besar. To collect the data, three techniques were employed: observation, interview, and documentation. The process of interview was audio-recorded. Meanwhile, field note was used during the observation. Documentations were in the form of the learning activities document. The results of the study

showed that the learners' perceptions of native-English speakers' roles in learning process could be categorized into a number of terms, including the natural exposure, the place for practicing English conversation, competence in teaching, and teaching strategy. Meanwhile, the learners' experiences fell into authentic learning, good creators in teaching method, and good learning motivators. Essentially, those perceptions and experiences were considered very helpful to stimulate

learners' willingness and efforts to learn English, especially build up the learners' confidence and enthusiasm in using English in real life situation.

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Issues in Translation of Balinese Cultural Terms into English

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Keywords: cultural term, semantic features, equivalence

This descriptive qualitative study investigates translation equivalent of Balinese cultural terms into English. It is based on the understanding that cultural terms belong to salient part in dealing with translation due to the cultural gap between source and target languages. Therefore, this study is conducted in order to find out the degree of equivalence between Balinese cultural terms and their translations into English in the book entitled *Memahami Roh Bali 'Desa Adat sebagai Ikon Tri Hita Karana'* and its translation in *Discovering the Spirit of Bali 'Customary Village as Icon of Tri Hita Karana'*. In finding the degree of equivalence, componential analysis especially the binary features is applied in terms of confirming the semantic features. The result shows that all translated cultural terms have no exact synonymy into source language. Some semantic features do not occur in target language as a result of lack terms in target language. The translator tends to replace cultural terms

in source language into appropriate terms in target language based on his knowledge and experiences even in some cases, it shows the loss and gain information. However, overall, those translated cultural terms still can share some basic semantic features of the source language. It is in line with the definition cited by Bell from *Dictionary of Language and Linguistics* (Hartmann and Stork: 1972) which stated that "Text in different languages can be equivalent in different degrees (fully or partially equivalent) in respect of different levels of presentation (equivalent in respect of context of semantic, of grammar, of lexis, etc.) and at different ranks (word-for-word, phrase-for-phrase, sentence-for-sentence)."

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Translation of the Relational Value of Euphemistic Expressions into English from Indonesian Literary Work

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Keywords: Translation, Euphemistic Expressions, Ronggeng Dukuh Paruk, The Dancer.

One common technique of translation is translation by word for word. This technique is used to express the meaning of a word (Moentaha, 2008; Newmark, 1988; Suryawinata & Hariyanto, 2003). This study aims to describe the forms and techniques of translation of Euphemism in the Translation of The Dancer novel by René TA Lysloff. The research method used is qualitative research with content analysis techniques. The research of data is in the form of clauses containing expressions of Euphemism. The source of data was taken from Ronggeng Dukuh Paruk (RDP) novel and the translation of the Dancer. The result showed that there were 35 data (83.3%) of the Euphemism forms of translated into euphemisms, and only 7 data (16.7%) of euphemisms were translated into other forms. The techniques used include single, duplet, and triplet techniques. The conclusions of the research showed that there were shifts in ideological forms and values from the source text into the target of the text. The dominant method of translation used is communicative with a percentage of 78%. Thus, it can be concluded that the translator is more oriented to the domestication translation ideology.

Table 2. Translation Methods and Techniques Frequency in The Dancer Novel

Translation of euphemistic expressions (N=42)	Technique	Single	Literal	15	36%
			Descriptive Equivalence	2	5%
			Modulation	8	19%
			transference	2	5%
			Naturalization	1	2%
			Functional Equivalence	2	5%
			Reductions	1	2%
		Duplet	Matching Culture	2	5%
			Literal + reduction	4	10%
			Literal + modulation	1	2%
	triplet	Naturalization + generalization	1	2%	
		Literal + addition	1	2%	
	Method	Transference + Literal + addition	1	2%	
		Literal transposition + + addition	1	2%	
		literal	17	40%	
semantics		3	7%		
Communicative		21	50%		
Ideology	idiomatic	1	2%		
	Foreignization	literal	17	40%	
		semantics	3	7%	
	domestication	Communicative	21	50%	
	idiomatic	1	2%		

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How Beginner Translator Work

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Keywords: translator, machine translation, translation process

Translation studies have focused mainly on the products, whereas it has wider scope. The translators are invisible, in that the works do not reflect them in person. However, translator serves as the main role in the work. The need to publish articles in English has made more people find beginner translator a savior. However, many who begins as translator find translation challenging. Rini (2008) stated that beginner translators, while transferring the message, have to practice in the stage of analysis, comprehending the source text and restructuring the message into the target text. Therefore, the paper aims to know the process of how beginner translator, especially students, translate text from Indonesian to English in nowadays digital era, where they have easier access to any source of information. Besides, the paper is to identify the steps they take in translating text. Qualitative-descriptive method is applied in analyzing the data. Eleven students of English Education Department are selected as respondents. The results show that translating Indonesian to English for beginner translator can be difficult, especially when they have to deal with text with specific terms in it. They use several kinds of dictionaries and a popular machine translation, Google Translate. Even so, the respondents managed to check the appropriateness of their work, in terms of diction, grammatical structure, and readability before submitting it. Some of them are less confident in the

result, but some others are pretty sure that they have done a good job.

Table 2 The results of the questionnaire

Question	A	B	C	D	E	F	G	H	I	J	K
Experience in translating text	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Opinion about the text given	Difficult	Easy	Easy	Easy	Difficult	Difficult	Easy	Easy	Difficult	Easy	Difficult
Finishing time	35'	60'	30'	15'	120'	-	10'	7'	30'	60'	30'
Types of dictionary used	GT	Printed	Digital	Digital	Digital	GT	Digital and printed	Digital	Digital	Digital and printed	Digital
The use of Google Translate	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Editing	N	N	Y	Y	Y	N	Y	Y	Y	Y	N
Proofreading by others	Y	N	N	N	N	N	N	N	N	N	N
Feeling	Nervous	Satisfied	Excited	Good	Good	Good	Pretty good	Proud	Difficult	Not good	Satisfied
View of translation in general	Hard but enjoyable	Challenging	Difficult	Easy	Easy	Difficult	Difficult	Difficult	Difficult	Difficult	Not really
Becoming professional	N	Y	N	Y	N	Y	Y	N	Y	Y	Y

Y= yes
N= no
GT= Google Translate

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Changes in teachers' beliefs after a professional learning community project for authentic assessment model development

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Keywords: assessment literacy; authentic assessment; teachers' beliefs; teacher professional development; professional learning community (PLC)

Numerous studies on language assessment have reported that there are different practices of assessment among language teachers. This differences might be due to the various levels of understanding about language assessment literacy (LAL) which include the ability to effectively plan, execute, evaluate, and report assessment processes and data. This problem becomes prominent in an English as a foreign language context, especially in Indonesia, where there are numerous calls for changing the nature of assessment practice from traditional form of assessment to alternative one such like authentic assessment mandated by the current national curriculum. In order to fill this gap, this brief article reports on a case study regarding changes in two secondary EFL teachers in Indonesia after involving a collaborative design-based research project embracing professional learning community (PLC) for developing authentic assessment model. A key research question guides this study: What changes did the two teachers experience in their assessment beliefs during the project? Two English

teachers were voluntarily recruited for a case study. Findings show that the collaborative design-based research project broadened teachers' understanding of assessment literacy and the use of authentic assessment in practice. The Findings demonstrate that the process of development expanded the teachers' understanding of language assessment literacy and authentic assessment application. The project roused the teachers to think about their assessment practice and stir their awareness and eagerness to make an improvement. This is important for the teachers since the misbelief among them in which those with language assessment preparing utilized assessment to improve educating and learning, while those with no preparation utilized it as an approach to exclusively acquire grades (Giraldo, 2018).

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Dynamic Assessment Effect on Speaking Performance of Indonesian EFL Learners

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Keyword: Dynamic Assessment, Speaking Performance, Indonesian EFL learners

National Research Council (1996) stated that learning and assessment are assumed parts of each sides of the same coin in its relationship. As a consequence, when learning is based on the context of real-life in its practice, the assessment also should rely on the context and actual strategies and technique. Assessment cannot be said as balanced assessment unless the whole outcomes of learners are measured by multiple techniques. The most important in assessment is the fairness in techniques, times, and contexts, then the validity and reliability more guaranteed. The research concerns with the application of Dynamic Assessment (DA) in ELT which based on Vygotsky's theory (ZPD). The research intends to investigate the effect of DA in improving teaching and learning speaking on Indonesian EFL learners exclusively in University. The research was conducted using a qualitative method by involving four Indonesian University learners in the first semester. The participants received the same treatments through Pre-test and Self-reflection, Feedback and Knowledge Expansion, Post-test and Self-reflection, Post-Feedback and Interviews.

The instruments were used to analyze the non-fluency and the insight of students' difficulties. The analysis shows that the learner's speaking performance is improved after experiencing DA sessions. The results of the test and self-reflection obviously described their speaking was improved significantly. The finding shows some positive effects of DA on learners' speaking performance. In interviews, learners show positive experiences, and attitude toward DA since it serves them a comfortable, structured, practical and meaningful platform to recognize their speaking behavior, weaknesses, strength, and needs. Furthermore, it also serves them to get objective feedback and feel not being judged. The researchers point out that DA can be applied as a main alternative assessment in the massive development of English speaking practices.

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Exploring Career Motivation of Indonesian Pre-service EFL Teachers

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Keywords: pre-service teachers, motivation, altruistic, extrinsic, intrinsic, teachers, profession

Pre-service teachers taking a teaching training program may hold different motives in choosing a career path as a teacher. The present study aims at investigating the types of motivation to choose a career as a teacher among participants from a teacher training program in a private university in Yogyakarta, Indonesia. A 24-item questionnaire was distributed to 14 respondents (N=14) to see the types of motivation the pre-service teachers had in their career choice and which was the dominant one. Of the result of the questionnaire, four students with the highest motivational level were purposefully selected to participate in a focus group interview and asked to describe their motivation to be English teachers. The findings indicated that the pre-service EFL teachers were dominantly motivated by altruistic and intrinsic motives in choosing to be EFL teachers. Extrinsic motivation, on the other hand, seemed to bring the least contribution in the pre-service teachers' decision to take teaching as a

profession. These findings supported those of some prior studies (Kim & Kim, 2015; Pizarro & Laborda, 2017; Jeong, 2016) which showed that altruistic motivation served as an influencing factor in the decision to become teachers. Implications and future recommendations were offered.

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EFL Students' Preferences on Types and Methods of Addressing Lecturer's Feedback on Formative Essay Rubric: A Case at University Context in Jakarta

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Keywords: feedback, essay writing, formative essay

The aim of this research is to figure out EFL students preferences on types and methods of addressing lecturer's feedback on formative essay rubric at one of university in Jakarta. Quantitative methods via survey questionnaire and semi-structured interview were used to gather the data among thirty EFL students at Bina Nusantara University. The data was analyzed using descriptive analysis. The results showed that majority of the students preferred having lecturer's feedback in the form of holistic rubric than analytical rubric due to

simplicity to understand the score meaning which represented the real lecturer's feedback. In addition, the EFL students favored electronic delivery method to dispense lecturer's feedback written in the essay rubrics. This method of delivery was chosen mostly by EFL students because of its time-valued and multi-access. Apart from those findings, EFL students and lecturer's must have greater mutual understanding on the need to select appropriate types and methods of delivery lecture's feedback on formative essay rubric for developing EFL students' essay performances

Investigating Madrasah Tsanawiyah Students' Needs in Reading Comprehension

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Keywords: Need analysis, materials, reading comprehension

The need of reading improved significantly as the demand of education 4.0. However, the needs of reading materials need to be adjusted in order to meet the goals. This study aimed to describe the English teachers' and students' needs of the learning materials for seventh grade of MTs Muhammadiyah Al-Muhajirin Patuk. This study included in Research and Development in the phase of preliminary study. Mixed method design was used in this study. Quantitative data was collected from 32 students as the respondents by using close-ended questionnaire with Likert Scale. The questionnaire assessed aspects namely: reading strategy, reading topic, reading activity, and reading evaluation. Qualitative data was obtained from an interview with 2 English teachers which emphasized on teaching and learning activities, the problems, and the existing English text book used in classroom. This study's result showed that the students need to learn English in reading with particular text topics and clear instructions. According to Nation (2009), using topic types is most suited to learners who are of at least intermediate proficiency. Therefore, an interest topic of the text is needed to be considered in selecting the materials in reading. Besides that, the students need the

reading strategy and activity which can reflect their environment in term of students in Mts who stayed in the dormitory. Moreover, the English books that the students used in classroom do not cover their expectation in learning reading. An appropriate English book that is used in teaching and learning process can help the students to learn better. A good book is any book that a student enjoys and wants to read (Johnson: 2008). Thus, a good book should contain interesting topics which can be used to attract the students' interest.

Table 4. Evaluation of Learning

No	Statement	Percentage of Responses				
		SD	D	Un	A	SA
1	The test is done at the end of each learning unit	0	9	28	47	13
2	The test is done at the middle of learning program	3	22	22	36	13
3	The test is done at the end of learning program	3	5	9	47	34

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The Development of English Reading Skill through Peer Teaching At Public Administration Institute of Home Affairs (IPDN)

Layla Kurniawati

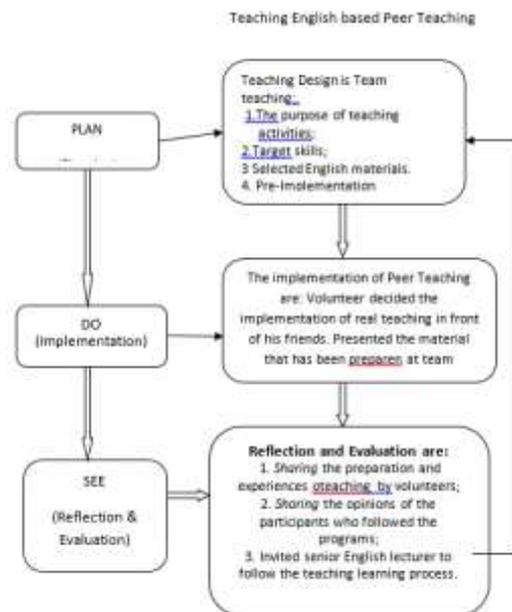
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Keywords: Need Analysis, Peer teaching, Reading skill

Peer teaching is a learning approach which is developed for developing students English reading skill at IPDN. This research is designed to solve some problems in teaching English at three curriculum systems at IPDN, especially English teaching problems at parenting curriculum system. This research explores the concept of peer teaching approach which utilizes peers in the form of interaction among the same level students and also in the form of junior and senior students who are more knowledge of English. This research focus on the collaboration among students, lecturers, trainers and other staffs for solving English teaching problems at IPDN. The method is mix methods (qualitative-quantitative). The qualitative step is conducted by need analysis (the strength, weaknesses, opportunities and also the threat belong to IPDN). Determining factors and aspects that are needed in improving the quality of learning in the class can be done by using needs analysis (a process that educational needs become a priority matter or the process by which educational needs are defined and priorities set, Mc Neil, 2006: 97). This is in line with Oliva (1992: 246) that "need analysis is a process for identifying program. Need analysis is used as a process to identify the need for a program. In this case the lecturer as the implementor of the curriculum should be sensitive to solve and choose the learning approaches that can be used in solving the English learning problems at IPDN. The data are collected in the forms of documents, observations and interviews. The offering teaching approach tested in limited and extensive group. The results show that the pre-test score has increase at post test score consecutively. from 51.78 when the pre-test became 59.55, the first post-test, 75.11 at the second post-test, and 81.33 at the 3rd post test, at limited and extensive test. The other results are the development of

the students reading and speaking skills, the increase of students interest of learning English, the embryo of learning community among the students, teachers, trainers, staffs of IPDN. The requirements for planning the activities before being applied to real classes are also a prerequisite for making learning in large classes applicable.

Based on the steps that are conducted in this study, the steps of peer teaching can be described below:



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The Use of IPT and the Implementation of Curriculum 2013

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Keywords: international-published textbook, curriculum 2013, teacher's perception, implementation, Indonesia

Influenced by the use of international published textbook, many English teachers in Indonesia have faced double goals in teaching, between to fulfil both requirements from the school and the government. The fulfilment of it impacted upon the teacher's perception. Lasky (2005) captured the inconsistency between teachers' perception and practices because of political contexts as well as earlier experiences in the profession. This qualitative case study investigated the gap of one teacher's perception between the use of international published textbook (IPT) and the implementation of Curriculum 2013 in the use of it. The findings indicate that the

teacher's perception on the use of IPT was more positive rather than on the implementation of Curriculum 2013. This gap was influenced by mandated policy the school has in using IPT as the main material in teaching. The implications of this study relate to the space given in teaching English using IPT without imposing it into a rigid curriculum framework.

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EFL Teachers' Views on English Assessment in 2013 Curriculum

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Keywords: English teachers, Views, 2013 Curriculum, Assessment, Indonesia.

Assessment plays an important role in teaching and learning activities. Rubin (1975) outlines the traits of good language teachers as teachers who have joined professional training, have good language proficiency, and the teachers who have provided the evaluation for the students such as giving the assessments and professional testing. Therefore, this present study aims to investigate the English teachers' views in conducting English assessments accordance with 2013 curriculum. This research is a qualitative research and the data is presented descriptively. The subject of this study is junior high school teachers in Yogyakarta, Indonesia. The research data are collected through in-depth interview and observation. The results of the research suggest that before teaching, the teachers have prepared lesson plans and it consisted of the rubric of assessments in 2013 curriculum. English assessments that were used by the

teachers are product assessment, skill or knowledge assessments and attitude assessment. In product assessment, there are project and portfolio assessments, while skill or knowledge assessment consists of writing, speaking, reading, and listening assessments. Thus, most of teachers argue that English assessment in 2013 curriculum is good because attitude assessment is separated from product, skill and knowledge assessments. Although, the teachers encounter some problems in conducting the assessments dealing with student's low motivation, lack of vocabulary, large amount of student in class, and shortage of teaching duration.

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“I Love Creepy Pasta”: EFL Students’ Book Selection for Extensive Reading

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Keyword: book selection, extensive reading materials, reading engagement, reading preference

The important element in extensive reading, a second language reading approach, is materials to read (Barone & Barone, 2018). Finding right materials is the biggest mission to achieve the goal of the approach which is reading for pleasure or reading engagement (Extensive Reading Foundation, 2011). This research aims at uncovering a trend of books selected by EFL students for extensive reading and elaborating students’ perception about what makes them engaged with the chosen books. To meet the purpose, this research employed mixed method design by distributing an open-ended questionnaire about book choices to 123 university freshmen and interviewing two male and four female students to understand aspects of the book that influenced their reading engagement. Top six students’ favorite books are romance (65.85%), comedy (53.66%), children story (46.34%), adventure and fantasy (45.52%),

horror and creepy-pasta (24.39%), and mystery and detective (24.34%). Meanwhile, according to the interview results, aspects of the books affecting their reading engagement are students’ connection and language appropriacy. The drawn conclusion is that in order to gain reading engagement, both students and teachers should understand students’ personal preference and English level information so that the students could opt books with appropriate level of English and topics that the students can relate.

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Current Approach in Translation Materials Development for Pre-Service Teachers

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Keywords: Approach, Translation, and Materials Development

In Indonesia, though various approaches in developing the teaching materials for Translation subject have been widely implemented among EFL Translation classrooms, it is evident that the teaching materials have always been the crucial part to achieve the teaching-learning targets. The present study implemented library research to overview some articles by previous researchers. It was found that Task-Based Language Teaching (TBLT) was the most recommended approach to develop teaching materials and was successfully implemented to 22 Pre-service teachers situated at Universitas Sulawesi Barat. Richard and Rodgers in Irfan (2017) defined Task-based Language Teaching as an approach based on the use of tasks as the core unit of planning and instruction in

language teaching.” As the result, it was concluded that after manipulating the materials of Translation containing a number of tasks, the students could comprehend the theory and apply procedures and its strategies of translation both Bahasa Indonesia to English and English to Bahasa Indonesia.

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The Teacher Perception and the Implementation of Peer Observation at the Language Center in A Private University

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Keywords: Teacher Perception, Peer Observation, Language Centers

Teacher professional Development is crucial because the success of the students are closely related with the teacher competence to achieve the goals of education. Therefore it is a must for the teacher to always learn throughout their career, and one of the learnings is by teacher learning from teacher or peer observation. The advantage of the peer observation is as the mean to reflect the practice of teaching which in turn will give input to their partner to improve the competence in the teaching learning process. Gosling (2002) stated that there are three models of peer observation, namely evaluation model, development model, and peer review model. Both evaluation and development model involved the peer observation as the means of evaluation, monitoring and assessment. The trust and respect among teachers who is observed and become the observer will determine the effectiveness of the process. Conducting the process of peer observation need commitment from parties involved in the teaching learning process. For the institutions, the process means the human resources and budget allocation to build the system, and as the continuing process, there must be efforts to maintain its running. On the other hand, the teachers are reluctant to be observed because they will feel insecure since no body like to be criticized, fear to change the routine, and by doing the peer observation process means more works for the teachers. Those reasons are the problems arise in conducting peer observation. This research is intended to answer the following questions below. (1) How do

teachers perceive and engage in the practice of peer observation at the Language Training Center? and (2) How is the implementation of the peer observation at the Language Center? The research design for this study is the qualitative case study. The choice of this research design is characterized by case study that is an in-depth analysis with a specific and complex phenomenon in a bounded system that could be limited by time and place. The research site is the Language Center of a private university in Indonesia. Purposeful sampling is used to determine the participants. The selection will be based on the length of employment (minimum one year), has already involved in the peer observation process at least one cycle or phase, is active teaching and do the peer observation process in the intended semester when the research is conducted. The other participants of the research were the decision makers in this institution. The answer of those two questions will be divided into four findings. They are: (1) The institution aims in conducting the Peer Observation activities, (2) The teacher perception on the implementation of the research, (3) The implementation of the Peer Observation and (4) the feedback for the next implementation.

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Active, Creative, And Innovative-Base (ACI) Instructional Material In Teaching

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Keywords: Instructional material, teaching writing

One of the skills an English learner should master is writing. Petty (2012) mentioned that writing is a mental and physical act of forming letter and word. It means that people can communicate to each other through writing. Whereas Dust and Newell (2007) suggest that writing is further used as a tool for gathering, remembering, and sharing subject matter. This study aimed to determine the writing needs of the Sekolah Tinggi Ilmu Tarbiyah (STIT) Muhammadiyah, Berau, East Kalimantan, Indonesia and development and validation of an active, creative and innovative instructional material in teaching writing. Specifically, it sought answers to the following questions: 1) what are the identified writing needs of the first year college students? ; 2) What instructional writing material could be develop based from the identified writing needs? ; 3) is the prepared instructional material curricularly valid? ; 4) What is the result of the pre-test and post-test between the experimental and control groups using the validated material; 5) is there any significant difference the pre-test and post-test result of the experimental and control groups? 6) What are the recommendations of the evaluators for the enrichment of the researcher output?

The researcher employed the mixed multiple

method in research and development, whereas the research model is ADDIE (analyze, design, develop, implement, and evaluate). The main instruments used in assessing the students' need and ACI-based instructional material is questionnaire. In assessing the implementation effect of ACI-based instructional material the researcher used pre-test and post-test, and also supported by observation and interview. The statistical tools used in analyzing the data in this study were Frequency Count, Ranking, Mean, Weighted Mean and T-test. The finding is the basic guide to writing as the product constructed as the answer in developing and improving the writing skill of the first year college students at STIT Muhammadiyah.

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Students' Perception on the Use of WhatsApp to Enhance Speaking Skill

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Keywords: Technology, Language learning, WhatsApp, Speaking

Technology has become an integral part in language learning. Its importance has grown continuously to help teachers facilitate their learners to learn language in and out of the class especially when time allocated to produce the language orally is limited. Using WhatsApp accessible in every student' phones becomes a

prominent solution to enhance their speaking skill implemented as an out of class activity. The students are observed actively using their WhatsApp as a learning medium for their speaking practice. Sa'aleek (2014) in Susanti & Tarmuji (2016) summarizes that mobile technology effectively enhance the language skills due

to the features such as accessibility, interactivity, immediacy, and permanency. Thus, this research aims to examine the implementation of WhatsApp for outside speaking practice and find out students' perception on the use of WhatsApp to enhance speaking skill. This research is a case study research conducted in even semester of the academic year of 2018/2019. The data of the research were obtained from class observation, interview conducted with 6 respondents registered as the students of Agribusiness department batch 2018 selected through purposive sampling, students' voice notes and students' speaking scores. The findings of the research reveal that WhatsApp has been effectively used to facilitate students practicing their English orally beyond class hours and its application to enhance speaking skill is perceived positively by the students supported by their speaking scores.

Table 1. Speaking Test Result

Students	Accuracy	Vocabulary	Development & Fluency	Pronunciation	Final Score
Student 1	4,5	4,5	4,5	4,3	89
Student 2	4	4,5	4,5	4,2	86
Student 3	4,5	4,5	4,2	4	86
Student 4	4	4,5	4,5	4	85
Student 5	4	4,5	4,5	4	85
Student 6	4	4	4	4	80
Student 7	3,5	4	4,5	3,8	79
Student 8	3,5	4	4,5	3,5	77,5
Student 9	3,5	4	4,5	3,5	77,5
Student 10	3,6	3,8	4,2	3,5	75,5
Student 11	3	3,5	4	3	67,5
Student 12	3	3	3,5	3	62,5
Student 13	3	3	3	3,5	62,5
Student 14	3	3	3	3	60
Student 15	3	3	3	3	60

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Pre-service teachers' voice on Web 2.0 tools for learning in EFL context

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Keywords: Pre-service teachers, Web 2.0 tools, EFL context

Information and Communication Technology has always been evolving, and its advancement has affected every aspect of human life including education. The use of ICT for learning are mostly related to Web 2.0 tools. It is because Web 2.0 tools provide opportunities for the users to not only browse and read the static content in the internet as in Web 1.0 technology, but also to write, post, and interact online on the world wide

web (Balbay & Erkan, 2018). As future teachers, pre-service teachers need to be aware of this development, and has to be able to follow suit by learning how to utilize the technology for their teaching and learning processes. In EFL context, Web 2.0 tools have been widely used since they provide opportunities for the users to have an interaction and collaboration with other people from around the world, and, thus, opens the

opportunity to global learning. Positive attitude has also been revealed among teachers who have utilized Web 2.0 technology in their teaching and learning process (Ajjan & Hartshorne, 2008; Balbay & Erkan, 2018). Therefore, this research aims at exploring the Web 2.0 tools that have been employed by the pre-service teachers, and it also aims at examining the lived experience of the pre-service teachers in applying some of the Web 2.0 tools for their learning process in EFL context. The results of the research are expected to provide insights for the teachers to improve the teaching and learning processes especially those dealing

with the use of Web 2.0 tools in language learning in EFL context.

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The Application Development of Game Find the Object to Improve English Vocabulary Mastery

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Keywords: Education Game, English Vocabulary, Find the Object

English is communication international language so that all countries in the world learn English. Therefore, understanding and ability to communicate in English is needed. Ethnologue (2017) stated that English language users around the world in 2017 which are the main languages are 371 million people and as a second language as many as 611 million. During this time, the method of learning English is mostly delivered using the Teacher Centered Learning (TCL) method and there are still a few English vocabulary learning media in the form of applications used in the learning process in the classroom. The purpose of this study was to create a game called Find the Object to help students, especially the elementary school level, to learn English vocabulary

to make it more interesting. Because of the large list of words, the way in learning is important to make students master the vocabulary. There is a pre-test and post-test to conclude whether this game significantly managed to improve the mastery of English vocabulary. The stages with the Luther methodology do not need to be sequential, the stages can exchange positions but still start from the concept stage first and end with the distribution phase. This needs to be proven through observing the value of the pre-test and post-test.

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Introducing Local Wisdoms through Narrative: Teaching English in Higher Education

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Keywords: Local Wisdom; Narrative; Character Building; and Writing

Kudus is well-known as moslem city and has many folks and legends related to the dissemination of Islamic belief. Two of The Islamic formers in Java or known as 'Wali Songo', Sunan Muria and Sunan Kudus are the figures that are believed as the role model of the local wisdoms in Kudus and have established the people's norms in every aspects of social-economic life. There are many local narratives which are told and they bring local wisdom which are connected to the former of Kudus civilization. Many folks are related to many figures who have been the establisher of Islamic belief and culture. Sulisty (2013) found out that problem which might be faced by student in writing a text type is: the students faced some difficulties in understanding the generic structure of written narrative. Therefore in this paper, the writer will try to figure out how local narratives can be used as the source of learning English

and also introducing the tradition and norms to English Education Department students. The writers tried to introduce the cultural values of Kudus societies to students through writing within the theme of "narrative". This research is done in the English Language Education Department of Muria Kudus University.

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Utilization of Mnemonic Techniques in Grammar Learning

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Keywords: mnemonic techniques, grammar learning, learning outcomes, retention

Mnemonic is either a verbal or visual technique that can improve the storage of new information already existing in long-term memory. Memory affects vocabulary and grammar achievement to a great extent (Ahour and Berenji, 2015). This study aims to (1) describe the condition of grammar learning in tuition center (2) the use of mnemonic techniques to increase learning outcomes and retention of grammar of the tuition center students, (2) factors that influence student learning outcomes and retention of grammar in the learning process in tuition center. The research was conducted on Nusantara Training Center (NTC) tuition center. This research is descriptive qualitative. The subject of this study consisted of students and educators of the NTC tuition center. Data collection is done through observation, interviews and documentation. The results

of the study revealed 3 findings, namely (1) the learning objectives were in accordance with the students' needs, namely to increase grammar knowledge and understanding (2) the grammar learning process had not used the mnemonic technique to the maximum because it used only one technique namely keywords technique and (3) influential in grammar learning, namely the characteristics of grammar material, students have difficulty in learning grammar material, and the maximum use of techniques that help to increase learning outcomes and retention of students.

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Building Students' Critical Thinking Through The Literary Critical Reading Class

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Keywords: students' critical thinking, literary, reading class

Being critical is an important and urgent condition for students in a mission to enrich their knowledge. Indonesian Students have a chance to sharpen their critical thinking for example through the activity of critical reading class. Here, the students have chance to practice how to make analysis after they have completed their reading process.

Giving comments related to the topic of the text discussed is a routine activity in critical reading class. Here, the students can explore their opinion freely based on their mindset as long as it is still in the topic area discussed. There will be possibly known styles on the students' opinions and style, characteristics of their thinking, and level of knowledge they have.

Students with good bravery and high attention towards their surrounding life are basically good assets for teacher and school. Some students are usually too

critical in responding certain issues found on a text. Often, they also show their rather extreme opinion for sharp and sensitive issues.

This study, therefore, is in a mission to explore the contribution of literary critical reading class in building students motivation to have a critical thinking. Kurland (2000) stated that textbooks on critical reading commonly ask students to accomplish certain goals In fact the critical thinking may take the students to be rather extreme but this is natural since their existence give a color for the progress of the development of education especially Indonesian Education.

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“They are not gargling anymore”: The Journey of L2 Acquisition through Extensive Viewing

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Keywords: Extensive viewing, L2 acquisition, compelling input

In his latest remark on language input for language acquisition, Krashen put an important note that input should not only be comprehensible but also compelling and enjoyable. This means that learners have the freedom to select the materials that are at their level and in their interest. Learners require a large amount of input so that they can obtain sufficient repetition that contributes to incidental learning. This input more importantly should be beyond learners' vocabulary knowledge (Nation, 2007). This study aims to examine how an English learner acquired his proficiency, especially listening skill and vocabulary through self-selected viewing. A case study was used to draw meaning to the learner experience in

using TV series as his sources of English input. His extensive viewing has served as an approach of acquiring language where he built his familiarity to the linguistic elements of spoken language that helped both bottom-up and top-down processing in listening.

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E Learning video formats and student engagement and learning outcomes

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Keywords: MOOC, e-learning, video, student engagement, learning outcomes

Massive open online courses (MOOCs) are increasingly becoming a means of promoting autonomy, openness, and diversity in university-level learning. This is important because MOOCs are reported to suffer from staggering drop-out rates reaching 90% (LeClaire & Ferrer, 2014). One reason for such low student engagement is the poor quality of the MOOCs' design. Therefore, it is important to improve the quality of MOOC materials, including its instructional videos. Meanwhile, research on how different formats of content presentation in instructional videos impact student engagement and learning outcomes is scarce. The current study therefore examines the impact of different formats of content presentation in instructional videos on student engagement and learning outcomes. The participants were twenty-two undergraduate students, who were asked to watch three types of instructional video formats from a MOOC and complete pre- and post-video quizzes. Findings show that although the animation with music format was rated as the most

engaging, what is most important to the students is the novelty and relevance of the video content, regardless of the format. As for the students' learning outcomes, they were not significantly correlated to any video formats. The study generated recommendations for improving instructional video design for MOOCs.

Table 1 shows the median score for each of the tests. The maximum score is 8.00.

Table 1. Median scores for pre-test, post-test, and delayed test.

Topic	Pre-test	Post-test	Delayed Test
Video 1	4.00	5.00	4.00
Video 2	2.67	8.00	5.33
Video 3	6.00	6.00	6.00
Video 4	4.00	5.00	6.00

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The Integration of MALL to Enhance Students Speaking Skill : an Autonomous Learning Model

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Keywords: Mobile Assisted Language Learning, Autonomous Learning, Speaking Class

Mobile Assisted Language Learning is a new approach for the students to learn language by the use of mobile technology. Learning language should not only happen in a class setting activity but also happen outside the class in which the students take charge of their own learning. According to Miangah and Nezarat (2012) learning using mobile devices "is characterized by its potential for learning to be spontaneous, informal, personalized and ubiquitous". This paper aims to introduce Quizlet, a mobile application which can be used by the teachers to encourage autonomous language learning, particularly the speaking skills, to their

students. Speaking skill is commonly developed through practice which heavily relies on the class activities. However, the insufficient time or class meetings becomes a hindrance for the students to practice their speaking appropriately.

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Using Gibbs' Reflective Cycle In Making Reflections Of Literary Analysis

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Keywords: Reflective Writing, Gibbs' Reflective Cycle, Literary Works, Literary Analysis

In English as Foreign Language (EFL) classroom context, it is compulsory for the students to make reflections of literary works. Through the reflection, the students are able to acknowledge what they have learned and interpreted of the literary works they are assigned to. Through reflection the teacher is able to examine the students' progress in comprehending the literary works, monitor if the students' are able to interpret the author's intention, and anticipate when the students happen to misunderstand the stories of the literary works. In the present study, three frameworks to writing reflection are elaborated. However, the study focuses on the model or framework that is developed by Gibbs (1988) which is called Gibbs' Reflective cycle, that consists of six stages. The purpose of the study is to examine the effectiveness of using Gibb's reflective cycle for the students in writing their reflections towards literary works. The qualitative study employed a

document analysis upon the students' reflection artefacts. The students' reflections are their responses to a short story written by Amy Tan. The findings of the study revealed that Gibbs' reflective cycle is effective to be used by the students in writing reflections upon literary works they are working on. The well-structured framework of writing reflection helped the students explore the literary work deeply, since the reflective cycle accommodates important aspects that can be explored from the literary work by the students.

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Bacha Posh Gender Performativity in Novel *Parvana* (2002) By Deborah Ellis

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Keywords: bacha posh, gender performativity, gender identity, bacha posh identity

Bacha posh is a girl who looks and behaves like a boy, or a girl who is raised as a boy. The bacha posh identity entails adopting male clothing, male hairstyle and a boy name. Becoming a bacha posh also requires a girl to embrace masculine mannerisms, such that she could resemble a boy. This paper analyzes bacha posh performativity as demonstrated by the characters Parvana and Shauzia in the novel *Parvana* written by Deborah Ellis. In doing so, the paper employs the theory of gender performativity formulated by Judith Butler (Butler, 1990). The results of the analysis shed light on the following points. First, the bacha posh performativity as demonstrated by Parvana is shown through several processes of transformation; these include (1) changes in appearance (wearing male clothing and having male hairstyle), (2) the use of a boy name (Kaseem instead of her girl name, Parvana), (3) a change in her behavior (how she confronts and positions herself against her

male counterparts). The use of male attributes suggests the ongoing formation of bacha posh identity in *Parvana*. Secondly, the bacha posh performativity in Shauzia is conveyed through the use of a boy name (Shafiq) and the adoption of male appearance and mannerisms.

Unlike *Parvana*, the bacha posh identity in Shauzia has been well-established. Through these two bacha posh characters, it can be concluded that gender is a matter of 'nurture' instead of 'nature'; it is an act, instead of an absolute reality, that is performed repeatedly so that it becomes a stable identity.

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Pop Literature, a New Light for Social Movement

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Keywords: Canon Literature, Popular Literature, Social Movement

LGBT and Feminist are the examples of prominent social movements nowadays, although there must be more. The growth of social movements is significant in the past few years. Many of them have successfully achieved some of their goals gradually. Moreover, they have awakened the conservative society or country that they have the right to voice the unfair treatment they experienced to fight together for their rights. For example, in Indonesia, the rising of LGBT movement is massive regardless of the rejection they get. This rising has a relation to the development of LGBT issues in other nations that arouse their awareness of the similarities. As the social movement, it is important to achieve their goals by many ways. Gaining massive followers is one of the ways; to do so campaign through literature apparently is a delectable option. Hence, the objective of this paper is to define the significance of pop Literature for the development of the social movement. It becomes interesting when pop

Literature can advocate the issues while in cannon Literature cannot. Popular literature includes writings that is intended for the masses and large audiences. It can be distinguished from artistic literature, in that it is designed primarily to entertain (Swirski, 1999). Nye (1990) highlighted popular culture's importance, arguing that American [U.S.] popular culture, embodied in products and communications, has widespread appeal.

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Blended Learning in Practice: from Autonomous to Collaborative Learning Experiences

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Keywords: Blended Learning; Autonomous Learning; Collaborative Learning

The benefits of integrating technology into English teaching and learning within a framework of blended learning are likely to outweigh the challenges. Kavaliauskienė (2011) described the practice of blended learning in listening class and analyzes students' attitudes towards usefulness. Introducing a combination of online, offline and traditional modes of delivery, this study provides practical ideas on how blended learning led to autonomous and collaborative learning experiences. Embracing the characteristics of a-mixed-method research, qualitative data (observation and interview) were transcribed, categorized and interpreted into central themes and quantitative data (English proficiency test) were calculated and categorized into effect size of Cohen (1988).

50 freshmen taking nursing study, called patients, were treated in a General English course program, named English Clinic, at one of the Institutes of Health Science in Cirebon, Indonesia. Surpassing everyone's expectation, blended learning can be a potential option to run a big size class as well. There are, however, challenges to succeed in implementing blended learning; The instructional design and content selection, particularly when it comes to English for specific field, for medical purposes or healthcare professionals. These are of the greatest concern that warrant further study.

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A Blended Learning Approach to Listening and Speaking Course to Enhance University Students Skills

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Keywords: Blended learning approach, learning management system, language learning, Listening and Speaking Course

Listening and speaking skills clearly turn into a critical ability for language students as those skills facilitate the fruitful adaptation, particularly on the advancement of education and technology. There have been numerous studies investigating the implementation of blended learning approach that support the enhancement of students' language skills. The underlying reason of its inclusion is for it can improve students' learning independence, intuitiveness, and achievement. According to Vaughan (2007), blended learning can facilitate interaction between the teacher and students, encourage students' commitment in learning, intensify adaptability in the learning process, and chance for constant enhancement. Additionally, it assists students to meet their individual learning objectives and needs at their own pace, as it offers different learning speeds and

styles. This study aimed at evaluating the implementation of the blended learning approach in a listening and speaking course and investigating the students' attitudes towards its implementation. This study utilized questionnaire and semi-structured interview as the data gathering instruments. The study indicated that the blended learning instruction model being designed was suitable for the students' learning needs. Furthermore, how students perceived the blended learning approach in the listening and speaking course towards their language skills was revealed.

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Providing Digital Natives with Digital Teaching Platform: Investigating Their Perception

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Keywords: Digital Teaching Platform, Digital Natives, Perception

The ubiquitous use of technology that 4.0 revolution has brought about ought to not solely aim at catering digital native needs for technology but more essentially, should also aim at empowering them competing in the 21st century global market. Hence, Digital Teaching Platform (DTP) which is defined by Dede and Richards (2012) to introduce a curriculum design as a practical guideline for teacher in catering the intertwining urgencies of 4,0 revolution toward digital technology and 21st century skills must not merely be defined as transforming printed media to digital but rather as comprehensive design covering Collaboration, Bring Your Own Device, Flipped Classroom, and Project-based Learning. This study is initiated by the concern of how Indonesia's digital natives are not yet native to DTP for there is still a big gap between the use of technology inside/outside classroom and a reluctance of escaping from the

conventional teaching-learning comfort zone.

With this study, in total of 21 Agro-technology students in Level 2 class (equal to CEFR band B1) were assisted with a 90 minutes DTP session benefiting authentic internet-based sources, Kahoot! interactive online game, MIT AI2 Companion mobile application, and Goformative online assessment platform. Observation and semi-structured interview on 6 students were used to investigate their actual perception toward the use of DTP. The study indicated that participants were not yet fully migrated to digital world for some preference inconsistencies between conventional and DTP classrooms.

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English for Specific Purposes (ESP) in Non-English Departments: Its Recurring Issues

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Keywords: ESP, recurring issues, non-English departments

The shift from GE (General English) teaching to ESP (English for Specific Purposes) teaching in higher education has been deemed as a necessity for the teaching of English in non-English departments as the latter focuses on equipping learners with communicative language skills which are highly related to a certain field of study, future careers, and learners' specific needs. Although the decision to employ ESP program in non-English departments has indicated a clear direction towards the achievement of desired and specified learning outcomes, it cannot be denied that compared to other subjects which are closely related to the field of study, it still lacks attention from the stakeholders. This paper attempts to explore issues which revolve around the teaching of ESP in non-English departments.

The data were gathered by interviewing five ESP teachers in non-English departments of three private universities and one state university in Yogyakarta. This qualitative study has yielded findings which become recurring issues concerning the practice of ESP in non-

English departments, i.e. lack of needs analysis, lack of teachers' trainings, lack of specialty knowledge on the subject matter, large classes, and learners' varied competencies.

The finding regarding lack of needs analysis in the institutions involved in this study is in contrast with foremost theories on the pivotal role of needs analysis as addressed by Ellis and Johnson (1994), Hyland (2002), and Basturkmen (2010).

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The Reciprocal Teaching Method in the Teaching of Reading

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Keywords: the Reciprocal Teaching Method, reading comprehension, learning styles.

This research was aimed at investigating the effectiveness of the Reciprocal Teaching Method (RTM) in teaching reading comprehension, the difference of students' reading comprehension with different learning styles, and the interaction between the RTM and students' learning styles. Research about RTM is also ever done by Makhzoomi and Freihat (2012) who involved EFL university students. This research was quasi-factorial design with posttest-only design. The population in this research was 334 second semester students of English Education Study Program, STAIN Jurai Siwo Metro. The experimental class and the control class were chosen by using cluster sampling; class D, 48 students, as the experimental class and class A, 48 students, as control class. The students' reading comprehension achievement was attained from reading comprehension test while students' learning style was identified by using learning style questionnaire. The result of this research was in

contrast with the result of other research which revealed the effectiveness of the Reciprocal Teaching Method. This possibly occurred because of the slight visual different mean between the experimental group and the control group, the identical method implemented in control group, the dominant visual learners, and the stages in the procedure of the treatment. Further, the result of this research revealed that there was no interaction between the Reciprocal Teaching Method and the students with different learning styles.

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Enforced Revision and Peer Review on MSU-IIT Students' Compositions

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Keywords: peer review, academic writing, revision, guided peer review, writing attitude

This study is conducted to determine attitudes of Mindanao State University-Iligan Institute of Technology ESL writers toward writing and peer review, and whether these have an effect to their compositions. A pre-and post-surveys and interviews are conducted to determine the attitudes of students toward peer review. Enforced draft revisions, using a peer review worksheet, were imposed on the writers over one writing cycle. The study shows students have a positive attitude toward peer review despite their reservations about their ability as writers and as good critics. They claim that peer review is less stressful as they consider the feedback session a friendly conversation where they easily explain their

ideas. There were clear improvements in content and organization. Final draft quality improved more on performance after the intervention, with students feedbacking each other's works. There was evidence from qualitative interview data that guided peer review succeeded in directing attention substantially towards organisation and content. Based on these findings, it is recommended that peer review, with proper training and constant practice, be encouraged in writing classes and across content areas to make them appreciate that peer review is a beneficial exercise to improve their compositions. In addition, with time and practice, the writing process eased students' fears about reviewing one another's written work and increased their sense of

efficiency and self-confidence as writers and reviewers. Nevertheless, feelings of self-doubt lingered, especially regarding their inadequacy as critics to other's written compositions. As Wolcott (1990) observed, "Timely and useful feedback on writing is hard to give and hard to take". Therefore disagreements and emotions among writers and critics are expected. Teachers then must

instruct carefully students how to provide the kind of feedback that will be very helpful in improving compositions.

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Getting the Most Out Of Prezi: Students' Perception

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Keywords: Prezi, ICT , perception

The information and communication technology (ICT) has very significant roles in the educational area and it has nowadays been admitted by the academicians in all levels. In recent years, the creation of web based interactive technology has broadened the opportunity for both teachers and students in utilizing it in the area of teaching and learning. It is necessary for both teachers and students (future teachers) to keep using this technology to improve representation, adaptation, presentation, and interaction with the subjects being discussed. The research is aimed at exploring the strengths of Prezi in creating the presentation slides for the purpose of teaching and learning process. Taking three students of a private university in Yogyakarta as the participants, the study is guided by a research question stating 'how do the students perceive the strengths of Prezi in developing presentation slides?'

The results were categorized into three; the making, the appearance, and the use. In the making, students find it a lot easier to create the presentation because it is

accessible online at any time and any places. Inserting media is also easy. In terms of the appearance, students find it very interesting since it has unique templates available online and it can be zoomed in and out with the emerging path where the presenters can keep their position in the whole presentation. The last, in the term of the use, it is also easy because it can run on clicks and on automatization. The findings dealing with the making Prezi slides are relevant to what was stated by Rachman, Yahya, and Setiawan (2016). They found that the users are able to make a unity in their presentation, and the entire canvas design accentuates their information summary. Although it may look amazing, the fact that Prezi enables you to zoom out creating movements which can show you clearly the important concepts and connections.

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Developing and Evaluating Cooperative Integrated Reading and Composition (CIRC) Weblog Materials

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Keywords: weblogs, reading, writing, learning materials

This research study was aimed at developing cooperative integrated reading and composition (CIRC) weblogs materials for the second grade students of MAN 1 Yogyakarta. The development was carried out through ADDIE stages. The qualitative data were analyzed using the descriptive analysis while the quantitative data were analyzed through the descriptive quantitative analysis which was converted to the qualitative data. The result showed that the materials could provide more texts which were closely related to students' life and more practices on grammar, vocabulary, and generic structure of the text. However, the weblogs materials should be more adaptive to the learning process. Hence, the materials were improved by adding more games, giving direct feedback, simplifying instructions, minimizing essay questions, and giving examples or demonstration before working with the assignments. Through the development of the products, the learning process became more conducive since there was improvement on the students' interaction and motivation. This study confirmed the previous research which gave central attention on the students' need and wants. Sharpe (2014) explained that putting the learners at the center of the

instructional design is clearly important when designing for learning in the new spaces. In the other words the leaning materials became more effective when they were designed based on the students' learning needs and wants. The results of the study revealed that weblogging supported classroom instruction in several ways as students were engaged and motivated to write, collaborated, improved their writing skills, and demonstrated a transfer of knowledge from the blogging project to other subject areas through a differentiated pedagogical approach. So, this study confirmed the previous research conducted by Bennett (1999) who said that students' characters can be enhanced by implementing cooperative learning. It was proven that CIRC learning strategies can develop desirable character in school.

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ICT and Project-Based Learning in a Rural School: an EFL Context

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Keywords: ICT, project-based learning, English as a foreign language, rural school

We live in a world that is changing rapidly, especially in technology. To be able to survive, we inevitably need to be ready with this current development, no exception for those who live in rural areas. This study presents a description of a technology in a project finished by rural high school students in the Indonesian context. It employed a descriptive qualitative research method in a class that consisted of 35 high school students. The data was obtained from the video-taped observation, interviews with the representatives of the participants, and the questionnaires that were administered to all participants. The project was conducted in five meetings, with uploaded video to *YouTube* as the final product. The study revealed that the students showed their positive attitudes toward the given project. However, some

difficulties were found during the process of the video-making; they took them as good challenges for them to become better at using English, though. In conclusion, implementing PBL, which included ICT is worth doing by EFL teachers. In the same vein as a previous study conducted by Miller, Hafner, & Fun (2012), the students perceived that the ICT project facilitated them in improving their English skills.

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Challenges in Implementing E-Learning in the Language Education Context: Case Study at an English Education Department in Indonesia

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Keywords: e-learning, English Language Teaching, information technology

At present the world of education, including the sector of English language teaching, has been witnessing the massive development of information technology as well as using it to improve the effectiveness of the teaching and learning process. One of the efforts to incorporate information technology in teaching English is the adoption of e-learning. Equipped with advanced software to create various learning activities, to save and to display learning materials and to conduct learning assessments, a growing number of teachers have been integrating e-learning in their teaching. In addition, Tsai (2009) found in their study suggesting that students who learn online have to learn and be able to open new windows, click, drilldown and save files. Studies confirm that e-learning improves students' learning achievement. However, despite several benefits offered

by e-learning, many lecturers and students still encounter obstacles and difficulties in it. This research aims to explore the challenges facing English education lecturers and students at an English Education Department in a private university in Yogyakarta in using e-learning. This study used a qualitative method. Case study was employed as a strategy of inquiry. 5 lecturers and 20 students would be recruited as research participants.

The interview would be deployed as a strategy to collect data from the lecturers and focus group discussions would be utilized to gather information from students. In addition to interviews and focus group discussions, this research also employed document analysis as the strategy to collect the data. The data revealed that the challenges facing lecturers and students of English

education department in implementing learning included cognitive, metacognitive as well as learning styles and preferences challenges. Several strategies to overcome the challenges in the e-learning implementation were proposed by the participants.

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Blended Learning Approach Implementation: Pre-service English Teachers' Perception

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Keywords: blended learning; preservice English teacher; perception

The purpose of this study is to investigate pre-service English teachers' perception about blended learning approach to support them in developing instructional design for English subject. The participant of this study was 2 pre-service English teachers from Teaching Reading and Writing course. In this descriptive qualitative research, the data were collected by using interview session, observation and document analysis based on blended learning theoretical construct. The construct consists of 9 themes; course goals and learning outcomes; ease of communication; pedagogical and organizational design; engaged learning; collaboration and community; assessment and feedback; grading; ease of access; and preparation and revision. The result of the data shows that blended learning is Teaching Reading and Writing course has a balanced proportion between offline and online learning objectives and activities. However, the participants expect more information on online feedback technique and material delivery strategy. They prefer individual feedback and more practices after reading the material. The implication of the research

leads to providing various kinds of activity to assist student. The interview questions were designed based on 9 blended learning theoretical construct from Stein and Graham (Stein & Graham, 2014); course goals and learning outcomes; ease of communication; pedagogical and organizational design; engaged learning; collaboration and community; assessment and feedback; grading; ease of access; and preparation and revision. Based on the data above, it shows that students expect more interaction during online learning. They value the interaction because it is one of their ways to get feedbacks from lecturers. Furthermore, they need personalized interaction. It means all feedbacks should be provided one by one or as individual feedback, not as group feedbacks.

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Ceritakita: Revitalization and Preservation Media of Android Applications-Based Archipelago Folklore

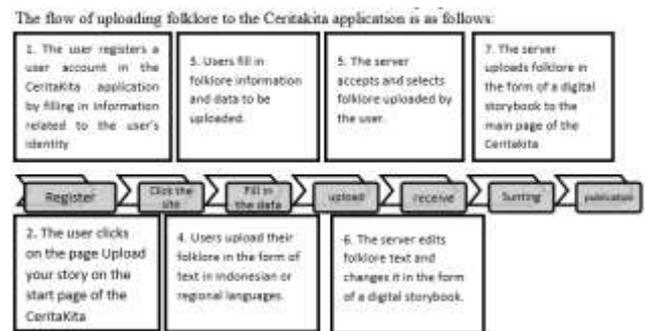
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Keywords: Revitalization, Preservation, Media of Android, Archipelago Folklore

The development of globalization raises various problems in the field of culture, namely: the loss of native culture of a region or a country, the decrease of cultural appreciation and nationalism of the young generation, the decrease sense of nationalism and patriotism, the loss of kinship and mutual cooperation, the loss of self-confidence and a westernization lifestyle. One of the Indonesian national cultures that had disappeared is folklore. Folklore as part of the oral tradition including cultural identity as well as cultural roots which are Indonesian subcultures or cultures. This research explains the design concept of the CeritaKita Application as a media for preservation and revitalization of archipelago folklore and its development strategies. CeritaKita is an android application program that contains archipelago folktales in the form of an integrated and accessible digital storybook for all Indonesian people. The form of digital storybook as the development of e-books consists of story text, images and audio. CeritaKita application is designed by using software development in the type of Unity 3D. The method used in this study is a research and development model which includes the initial survey, data collection, product design, product validation testing, and improvement. The results of this study are in the form of the CeeritaKita application as a media that contains a collection of folktales from all areas in Indonesia. This application can be a forum for all Indonesian people to reserve and revitalize folklore that exists in all regions of Indonesia in digital form.

Classification of folklore is needed to sort out the types of folklore, filing, and make it easier for people to find folktales that are sought. Folklores in the CeritaKita application are classified based on two things, namely: Type of folklore Folk stories owned by Indonesian people have a variety of types. The types displayed in the CeritaKita application include; fairy tales, legends, fables, myths, and anecdotes. Classifications of these types are based on the opinions of William Bascom (in Djanandjaya 2002) and Thompson (in Djanandjaya 2005). This classification is enough to accommodate all folklore in Indonesia.



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A Portrait of EFL Students' Experiences in an Internship Program: A Case Study

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Keywords: experiential learning, internship, reflections

This study aims to report on findings a qualitative investigation through a case study on the implementation of experiential learning program; internships. Using the Kolb's experiential learning theory (1984), this study portrays the students' experiences on their participation of the internship program. Hawtrey (2010) argued, "experiential learning activities also offer a greater chance for students making the link between their studies and their personal goals, such as career or personal skill development" (p. 145). A case study was employed in the study, by triangulating interviews and reflective reports. The finding shows that students had varied experience starting from the elementary, junior high, and senior high school. In addition, the most meaningful experiences are designing a detailed step-to-step lesson plan, attracting students' interest in learning, facing the exciting students, knowing that the students understand the lesson, giving

grades to students. While the most challenging experiences in the internship program are: determining the learning steps in writing lesson plans, designing interesting and contextualized teaching materials, socializing with the homeroom teachers, dealing with unclear instructions from the teacher.

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The Implementation of Feedback and Weekly Journal Activity to Develop Students' Autonomous Learning in Writing

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Keywords: feedback, weekly journal activity, autonomous learner, autonomous learning, writing

The objective of this research was to reveal the implementation of feedback and weekly journal activity to develop students' autonomous learning in writing. Weekly journal activity itself brings a minor concept of extensive reading where students should read much. Al-Homoud and Schmitt (2009) confirmed that extensive reading can also advance students' positive attitude on reading in learning a new language. This paper was qualitative research which used 6 students and in-depth interview to collect the data. The results showed that, feedback and weekly journal activity apparently were a significant combination which could contribute specific

effects to the students. The effects were consisted of as follows: the students could develop their autonomous learning to practice their writing, the feedback could trigger the students to think critically, and the feedback could address the students' problem about grammar, vocabulary, diction, etc. Apparently, from the finding, to develop students' autonomous

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Correlation Between Students' Listening Strategies and Students' English Listening Comprehension

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Keywords: Listening strategies, English listening comprehension.

Listening ability is one of the important skills in foreign language learning. The present study was undertaken to investigate the correlation between students' listening strategies and their listening comprehension ability encounter by the students of sixth semester English Education Department of Islamic State University Gowa. This research applied correlational design in which its' aim was to seek the relationship between two variables. There were two variables in this research; they are the students' listening strategies and the students' listening comprehension. Data were collected using TOEFL LONGMAN Practice test to measure the students' listening ability and Strategy Inventory for Language Learning (SILL) to know their strategies.

The finding indicated that there was no significant correlation between listening comprehension ability and listening strategies used of the learners. The result also confirmed Bidabadi & Yamat's (2011) research who proved that listening strategies have no correlation with listening proficiency.

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The Role of Social Network Sites in Developing English Language Skills: Students' Voices

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Keywords: social media, English language skills, Social Network Sites (SNS), outer circle

The advance of technology has provided a third virtual space where people from various regions and linguistic background can interact with each other. Social network sites (SNS) such as Facebook, Twitter and Instagram, among others, are the examples of these spaces. As a lingua franca, English is often used to enable this cross-cultural interaction. Despite the plethora of articles on SNS use, not many empirical studies have investigated further on this topic. Therefore, this study aims at investigating the role of SNS in developing English language skills among university students. In addition to that, McBride (2009) argued that if students can socially interact using English with their peers in SNS, more authentic exposure of English can add up their in-class language experience. Qualitative research design is employed to answer the research questions. In-depth interview is used to explore participants' experiences

when using SNS. The participants of this study include 6 university students of a private university in Yogyakarta, Indonesia who were active users of SNS. All participants were enrolled in English language education department. The findings revealed that SNS played a significant role in developing participants' English language skills by intensifying their exposure to English, facilitating authentic interaction, providing linguistic knowledge, providing a comfortable place to learn and facilitating their need to express themselves.

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The Effectiveness of ME TOEFL Software for Mechanical Engineering Students as A Way to Improve the TOEFL Score

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Keywords:

TOEFL is one of English test to measure participants English ability which consists of listening, structure, and reading. Along with the development of technology, many TOEFL Practice Test programs have been created, both via online and offline. One of the program that is created by Mechanical Engineering Department UMY is ME TOEFL Practice Test Software. This program is an online software which is used to measure Mechanical Engineering students TOEFL score. There are some set of questions that the students can choose when they start to do the practice. Using this software, students can do practice anywhere using their cellphone with android basis. They can do the complete test from listening,

structure, until reading and the time duration is provided in two hours. At the end of the test, they can see their correct score and then converted to the TOEFL score. During the semester, this program is used as a way to improve students TOEFL score after they get a semester training of TOEFL Preparation. By doing some TOEFL practices after getting the theory, students are expected to be able to improve their score, at least for getting the minimum scoring standard, 410.

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The Effect of Computer Assisted Language Learning (CALL) on Teaching Reading of Junior High School Students

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Keywords: teaching reading skill, Computer-Assisted Language Learning (CALL)

Despite the enormous potential of computer assisted language learning (CALL) in teaching and learning process, no serious action has been taken to develop this phase of education at schools. Computer Assisted Language Learning is succinctly defined in a seminal work by Levy (1997) as “the search for and study of applications of the computer in language teaching and learning” (p.1). To study the role of reading in secondary schools and how it may be improved through computers, six months-long study was conducted to examine which of two methods of teaching reading skills, a traditional class vs computer-assisted language learning (CALL), aided secondary students in improving the literal, inferential, and evaluative levels of reading skills. This experimental research study included two randomly selected groups of seventh-grade students of junior high schools of Sunan Giri Gresik. Both groups received 8 reading lessons either through CALL or through a traditional method. Participants’ reading skills were measured by pre-and post-tests by panel of three examiners. A paired one-tailed t-test was used to analyze test scores. The results of data analysis showed that CALL

was 45% more effective than the traditional class. Although the study suggests that CALL provides a more conducive environment for teaching reading, it must be used effectively.

Table 3. Results of T-test analysis for study pretest

Groups	N	M	SD	t	df	p
Control	30	17.06	4.29	0.94	58	0.35
Experiment	30	18.09	3.92			

Table 4. Results of T-test analysis for study posttest

Groups	N	M	SD	t	df	p
Control	30	19.15	4.68	4.26	58	0.00
Experiment	30	22.64	3.46			

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First Language Interference in Producing English Consonant Sounds

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Keywords: first language, interference, Sundanese language, English Pronunciation, Consonant sounds

This research deals with the problems encountered by the students whose first language is Sundanese language in learning English as a Foreign Language. The focus of this study is to examine the errors made by the students who have a Sundanese cultural background in producing consonant sounds. The study used descriptive qualitative research. This study involved the first-grade students of Vocational High School. The data were collected through observations and recordings. The recording of the students' English pronunciation were transcribed phonetically. The data were analyzed by using contrastive analysis techniques. The findings revealed that Sundanese students met problems in English consonant sounds while producing [θ], [ð], [v], [f], and [z] sounds. Sundanese students tend to shift the English consonant sounds to Sundanese sound systems when they speak. The results indicate that the significant differences between English and Sundanese sound systems are the cause of interference. To reduce the first

language interference, the teacher should learn something about phonetic features of the students' first language sound systems so she or he can predict the errors that students would probably make while producing English sounds. Moreover, the students must be familiarized to speak and to listen English in the teaching-learning process. In addition, Ladefoged as cited in Hassan (2014) conveys that mother tongue gives clear influence on learning target language. In this case, Sundanese environment which surrounds the students' daily life influences the students' way in uttering English sounds.

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Slips of the Ear in Perceiving Indonesian in Quiet Situation

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Keywords: quiet, slips of the ear, speech perception

Slip of the ear refers to listeners' inability to perceive the intended messages of the speaker correctly. Noise can be a major factor in causing slips of the ear. However, even in quiet situation, slips of the ear still happen. This study aims to discover types of slips of the ear and find out the most frequent type appeared in perceiving Indonesian as first language. This study examines slips of the ear in quiet situation experienced by 30 students from Faculty of Humanities Universitas Airlangga. The writer uses Bond's (2005) classification of slips of the ear, which are based on linguistic knowledge and consists of 14 types, to analyze the data qualitatively. The results showed that there are 5 types of slips of the ear appeared in quiet

situation which include vowel misperception, consonant misperception, word boundary misperception, morphological misperception, and semantical misperception. The most dominant type of slips belongs to morphology misperception with the percentage of 47.46%. It is shown that bilingualism might affect listeners in perceiving speech in quiet situation.

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Factors and Influences on Language Use of Mëranaw Teenagers

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Keywords: Mëranaw, teenagers, language use

Language is an indicator of identity; in a borderless world, people are easily exposed to other languages. Code-switching/mixing is common among young language speakers and among Mëranaw teenagers in Marawi City, Philippines, their use of Mëranaw language is mixed with Tagalog, English, Korean, Japanese, and Arabic languages. Mëranaw language is known to be unique and distinct from other languages as it is spoken in a down step accent. It has a complex phonology which is unique among Philippines languages (Lobel, 2013). The teenagers are greatly exposed to Tagalog and English as these are major languages in the Philippines. But only teenagers with great access to the internet are able to use Korean and Japanese lexicons due to watching movies and series and listening to songs. Teenagers who are studying in schools with Arabic education are able to use Arabic lexicons. Mëranaw teenagers consider expressing solidarity, establishing

common ground, mutual intelligibility, and choice of topic in their lexical choices. The teenagers would choose non-Mëranaw lexicons when they cannot express themselves in Mëranaw language and when they think that a Mëranaw lexicon is archaic. They would use affixes of borrowed languages with Mëranaw lexicons and in the same manner use Mëranaw affixes with lexicons of borrowed languages. In addition, code-switching/mixing occurs when they would negotiate meaning. Despite the phenomenon of code-switching/mixing, there is still language maintenance as teenagers continue to use the Mëranaw language.

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Students' EFL Self-Concept in an English Drama Club: A Case Study of Two English Department Students

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Keywords: academic self-concept; EFL self-concept; drama club; student organization

Self-concept has been considered as one of the determining factors of a student's success in learning. A student organization such as drama club can be a place where students build certain self-concept. The current study aimed at investigating the EFL self-concept of students in relation to their involvement in an English drama club. A qualitative case study was applied to seek for a deeper understanding of the EFL self-concept of two students in one public university in Yogyakarta, Indonesia. Structured and unstructured interviews were conducted to the two participants and one senior member of the drama club to triangulate the information. The finding shows that general EFL self-concept and specific EFL self-concepts

were not always in line and showed instability. In addition, some factors such as peers, senior members, scripts, rehearsals, were found to play a role in the EFL self-concept of the participants. In addition to that finding, since in drama, pronunciation is one of significant aspects, Du's (2012) research showed strategies used by students with high pronunciation self-concept is self-evaluation.

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Technique Applied In Simultaneous Interpreting At The Regional Meeting Of La Via Campesina.

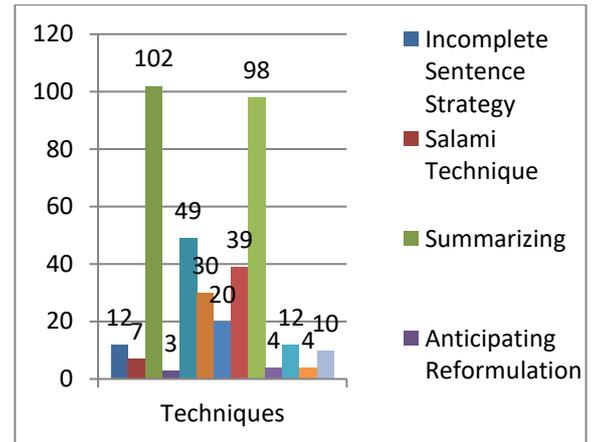
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Keywords: Simultaneous, Interpreting Technique, Factors Impede

This research analyzes various techniques applied in simultaneous interpretation mode on the Regional Meeting of La Via Campesina Conference. The research is focused on the interpreting process in two languages from English into Bahasa and vice-versa. The analysis is aimed to identify the techniques applied in simultaneous interpreting and the factors that influenced the technique applied during interpreting process. This research is descriptive qualitative research. The research result showed that the majority techniques used by the simultaneous interpreter which is defined by Seleskovitch (1978) as an interpreter sat in an isolated booth are summarizing, reformulation, omission, transcoding, and simplification. The factors impeded summarizing techniques are, speed and time lag, speech directionality, and memory. The factors impeded reformulation techniques are, processing director, accent and dialect, and fast speech delivery. The factors impeded simplification techniques are, number, speech density, and high profile attendees. The factors impeded omission techniques are, memory and attention, visibility, noise and technical difficulties. The factors impeded transcoding techniques are, prior information, syntax, and bilingualism. The findings further indicate that due to different language system, the simultaneous interpreter should be more aware of the interpreting techniques. Besides the diverse system of language, speed is also significant in interpreting. Chernov (2004:15) debated that the speed of conveying or produce the simultaneous interpreting process is

relatively dependent on the speed.



Not to mention that this lag and simultaneity are independent of SI language combination, and only relatively dependent on the SL speech, and consequently on the rate of SI activity, but depend considerably on the level of interpreting professionalism.

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Expectation, Perception, and Strategies of Indonesian Student in Australia

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Keywords: World Englishes, Indonesian Students, Intercultural Communication

English language has been experiencing a paradigm shift due to its global spread, and the advances in research and practice in the disciplines, such as World Englishes and English as a Lingua Franca. The present study explores the use of English in Australia based on the perspectives of Indonesian international students. Drawing upon three elements of expectations, perceptions, and strategies, the researcher attempts to capture the whole picture of English varieties in an Australian higher education context. Two methods, demographic questionnaire surveys and semi-structured interviews, were employed to gather data from fifteen Indonesian students studying in Melbourne, Australia. Data obtained from three universities in Australia and were discovered that expectations, perceptions, and strategies of Indonesian students were varied due to limited awareness regarding English varieties, culture gaps between Australia and Indonesia, and the role of self-reflection. It is hoped that

this study may shed light on people's understanding of the challenges, experiences and the general wellbeing of international students who choose to study in Australia for their tertiary education. Dealing with study abroad, students experience cultural differences. Bowe, Martin, and Manns (2014) point out that 'cultural differences in the perceptions of the role and ways of speaking are important' and that to understand 'the language used to interpret linguistic meaning in a given interaction'. From the sample, the participant underlines the role of her encounters in the communication, e.g. close friend or stranger, in generating the comfortability in speaking English.

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An Investigation On The Role of English Lesson Module In Accommodating the Learning Style of Students In A Language Training Center

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Keywords: English Lesson Module, Learning Styles

English language learning has been developed in order to assist the students to master it. They usually study it in English language classes and to support the teaching learning activities, they get English lesson modules. However, successful learning does not only depend on the module, but it also involves the internal factor of the students such as their psychological factor. Therefore, it is substantial to consider psychological aspect in the learning activities. One of the psychological studies in educational area is learning style. In some aspects, learning style can influence the lesson mastery. The objective of this study is to investigate the role of English lesson module used in a language training center in accommodating the learning styles of the students. Thus, by knowing the tendency of their students' learning style, teachers might be able to optimize the learning activity to engage the students in the classroom. There are some

benefits when teachers can incorporate learning styles in teaching (Montgomery and Groat, 2003). They are 1) Making teaching and learning a dialogue, 2) Responding to a more diverse student body, 3) Communicating our message, 4) Making teaching more rewarding, and 5) Ensuring the future of our disciplines. The method used was descriptive analytical and the data was collected from questionnaires with Likert-scale. To analyze the data, SPSS statistical software of correlational analysis was used.

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Bad Reading Habit Severs College Students' Academic Writing

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Keywords: academic reading, academic writing, college students, major problems

For a college student, reading and writing are very necessary for the success of their studies. Bad reading habit can sever their knowledge and comprehension in their field of subjects. We designed a correlation study with fifty-two master students of English Language Education at Universitas Ahmad Dahlan, Yogyakarta to test how severe the writing skill caused by lack of reading skill. The questionnaires “The European Writing Survey (EUWRIT)” was administered. The data were analyzed by using SPSS including One-Sample Kolmogorov-Smirnov Test, ANOVA, and Pearson Product Moment correlation coefficient. Writing samples were also collected from them to find the major problems in their writing. The results show that the reading habits and writing skills of the students are in the medium or at the neutral levels. The Product Moment correlation is = 0.610, it is higher than r table value with the Sig 0,000 < 0.05 (rxy= 0.610> (rt) = 0.304).

Moreover, based on the calculation of the t-test, it is found that the value of t observe = 5.58 and it is higher than t table (1.70). F score is 352,524 at the significant $0,000 \leq 0,05$. Thus, reading habits have a significant influence on writing skill. The coefficient determination (R) was 87,6 % meaning that reading habit has 87.6 % contribution to their academic writing skill. Major problems of their writing are grammar, syntax, vocabulary, and paragraph development. The findings confirm that writing is not an easy task as it needs an ample of vocabularies, wide knowledge of various genres, and it is in line with Kellogg’s statement (2008) that writing is a major cognitive challenge, because it is at once a test of memory, language, and thinking ability.

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Implementing Systemic Functional Linguistics Approach in EFL Classroom to Facilitate the Students' Academic Writing

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Keywords: systemic functional linguistics, academic writing, discourse

Academic writing is an essential subject taken by the students in the university level in order to be able to publish a scientific article in the future. It brings not only the ability to write ideas and structure the grammar traditionally but it also deals with the context of culture and situation that can create meanings beyond sentences as a system. However, students generally leave them out and focus only what they read as the literature review and report what they do as the result of analysis. By knowing systemic functional linguistics (SFL), the

students would know that creating a certain discourse, in the case of academic writing, they would consider the social purpose, generic structure, and language features accompanying the text itself. This study reflects on a case study in the academic writing class that is supported by the SFL approach in teaching and learning process. It is expected to reveal the students' understanding toward the academic writing practice. Thus, the language produced can accompany the context of academic writing appropriately.

The Equivalent of the Betawi Culture Subtitle into English Case Study in Si Doel the Movie, the Work of Rano Karno and the Translation

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Keywords: equivalence, culture, translation, subtitles

Film is one of media in conveying the cultural mission of a country. The film *Si Doel the Movie* is a reflection of Betawi culture which is one of Indonesia's diverse cultures. It needs to be supported by mastery of international languages, namely English, which is used as a communication tool by film lovers from various different national backgrounds with subtitle translation facilities.

The language in this film mostly uses the term of Betawi, there are many cultural terms so that when it is translated by translators, those terms will trigger some difficulties because they still do not have equivalents in the target language or English. Cultural terms include ecology, material culture, religion, social and language. The term can be found in the words such as *mengkeret*, *bujug buset*, *disamber geledek*, and so on.

This study analyzes the equality in translation with informants as a benchmark to find out whether the message in the target text is equivalent to the source text. This method is based on the concept of dynamic equality by Nida and Taber (1974: 12). Based on the informants, the methods and techniques used by the translator in maintaining the equality of messages were analyzed. The theory used is the translation method for cultural terms by Nida (1966) and translation techniques by Catford (1965) and Hoed (2006).

Research shows that cultural terms are not easy to translate because they are related to the cultural context in the source language. This can be seen from the existing translation data which shows two equivalent translation characteristics that can be achieved through several methods, language understanding and the culture of the source language and target language; the use of appropriate translation procedures and techniques (transfer, cultural equality, descriptive translation, position transfer, modulation, additional explanations, and standard translations). The right words choices are based on the intention of the screenwriter of this film.

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Social Media and Translation: Analysis for Machine Translation Quality Assessment

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Keywords: instagram, machine translation, machine translation quality, social media, translation studies

Social media nowadays has been higher degree for getting information sharing, collaboration and community building. The information can be shared, disseminated and processed has presented potential issues that reflected social and political participation of civility or incivility of online interaction. Moreover, this view has been recently challenged by the rising phenomenon of online incivility that has made the environment of social networking sites hostile to many users. Instagram- as one of social media explores many futures, including automated translation. However, there are many paucities in meaning the text. To address the gap, this study examined and compared the result of machine translation of instagram automated translation and google translation which meaning of source taken in Indonesian gossip account in Instagram as social media's medium. The quality of translations were seen by errors findings. The kinds the errors are, 1) inflectional errors, 2) reordering errors, 3) missing words (omissions), 4) extra words (additions), and 5) lexical errors

(mistranslations). In this research, the writers will assess the quality of instagram automated machine and comparing with the quality of free neural translation machine (google's) through error classes. Inflectional errors refers to the change of form to express a grammatical function or attribute the tense, mood, person, number, case, and gender. The problems arose when the target language did not have the same grammar function with the source language. Besides, another problem also found because of lack of grammar ability. That is in line with a study by Lanoe (2016) which showed that dealing with grammar students did some errors in learning inflectional verbs related to numbers (which reflected to singular vs. plural) in sentence.

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The Development of Intercultural Capability in Overseas Study Programme: A Narrative Study of Indonesian Teachers of English as a Foreign Language (EFL)

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Keywords: communicative interaction, dialogical communication, English as a Foreign Language teachers, intercultural capability, overseas study program

This paper presents a study on the development of Indonesian English as a Foreign Language (EFL) teachers intercultural capability in an overseas study programme and its impacts on classroom English Language teaching practices by utilising the conceptual framework of the development dimension of intercultural capability by Bennet (1993), Taylor (1994), and Chen and Starosta (1997). By using narrative inquiry as research methodology, this study draws on the stories of two Indonesian EFL teachers experiences of intercultural learning during a master degree programme overseas. Data was gathered through semi-structured individual interviews with Indonesian EFL teachers who have completed Master of Teaching English to Speakers of Other Languages (TESOL) studies in Australia. The finding shows that communication and cultural disequilibrium in an overseas study programme play a key role in the development of EFL teachers intercultural capability in a way that enables them to develop their personal attributes from ethnocentrism to ethnorelativism. The finding also reveals that although the teachers become interculturally capable, the overseas study programme does not necessarily contribute to their oral English skill development.

A deeper reinforcement in teachers cultural environment and the quality of experiences encountered overseas is needed. In a further result, this study reveals that the development of the teachers intercultural capability affects their subsequent classroom English teaching practices in a way that they begin to employ a dialogical communication and interaction by reflecting to their past experiences, especially when the teachers recognized the importance of employing a communicative interaction when they encountered challenges abroad.

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A Literature Study: Relationship between the Translation Competency and the Translation Quality

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Keywords: Translation Competency, Translation Quality, Educational and/or Translation Trainings

Translation competency consists of knowledge and skills acquired by translators to produce a good quality translation. Translation competency includes formal education and / or translation trainings which translators have ever taken. Even so, many translators in Indonesia do not have backgrounds of acquiring formal education and / or attending translation trainings. In this regard, this literature study was conducted to investigate regarding the relationship between the translation competency and the translation quality. By examining some related academic researches and supported by some relevant theories, the result shows that the translation competency affected the quality of translations produced by the translators. One of the studies is Christian's (2015) which examined the background of the translators especially the translation educational background, the quality of the translation results that they produced, as well as the relationship between the background and the quality of their translations. The researcher chose three translators with different educational and occupational backgrounds. From the results of the study, it was found that Translator 1 had the best translation quality for the type of text that matched its specialization and the type of text outside its specialty, Translator 2 was ranked 2nd for the level of quality of translation, and Translator 3

was last, or it could be said that Translator 3 produced the lowest quality translation to begin with. Furthermore, based on the research, it was found that the translation educational background (Postgraduate Program / Master) possessed by Translator 1 had a major influence for the translator to produce high quality translations.

The hypothesis was proven by the translation results of Translator 1 which have high translation quality both in terms of accuracy, acceptability, and readability after being assessed by some expert judgments. In addition, the type of occupation of Translator 1 also has a huge influence for the translator to produce high quality translations compared to other two translators whose types of occupation are less or irrelevant to the field of translation. For additional information, Translator 2 works as an English teacher and Translator 3 works as an owner of computer rentals and bookbinding.

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Edutainment with the help of volcanic media for the development of children's language in group B at TK X Kamal, Bangkalan

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Keywords: Edutainment, Language development, volcanic erupted media

This study aims to look at the development of language owned by group B children in TK X Kamal, Bangkalan using edutainment. On the implementation of using mountain media erupted by performing a volcanic eruption process simulation. Learning about volcanic eruptions is expected to enable children to get to know the environment, and explain the symptoms of nature. This study uses quantitative descriptive research to determine the number of students who can describe the process of erupting the mountain verbally. The location of this study was conducted at TK X Kamal Bangkalan with a total of 16 students. The results of this study were

to look at the language development of children in group B in explaining natural phenomena such as volcanic eruptions. The use of simulation methods in children can develop language skills in science activities with erupting mountain media simulations. This method is a manifestation of experiential learning which based on Kolb (1984) it puts experience as the core of learning for development.

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HOTS Based Project in Mechanical Engineering Department

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Keywords: HOTS, project, mechanical engineering.

In this 21st century education, preparing learners to have high order thinking skills (HOTS) is important to make them ready face the global era. HOTS (analyze, evaluate, create) is the continuous phases of LOTS (remember, understand, apply). HOTS in a project based instruction is proposed to be able to promote the skills needed in the 4.0 era (critical thinking, communication, creativity, and collaboration). This research focused on a HOTS-based project in a mechanical engineering, Adisutjipto College of Technology. In order to conduct a comprehensive action research, some research instruments are accessed. The instruments adapted from McNiff, Lomax, & Whitehead (2002) and Henning, Stone, & Kelly (2009). The first instrument is journal-log that is the columns for writing clarifications on the students' activities. The second instrument is observation sheet that help the researcher to make improvement in teaching learning process. The third instrument is the interview purposed to find the problems happen in the classroom and explore the respond and opinion on the use of HOTS based project. The fourth is comparing the students' achievement before and after being given the HOTS based project, i.e. marks in Bahasa Inggris 1, marks in the Tools presentation, and marks in the

Aircraft presentation. The last instrument is distributing questionnaire after AR to investigate the students' opinion and respond on the HOTS based project. Based on the observation in the previous semester, the students needed to improve their HOTS that the research applied an action research study. The projects were allocated in two course objectives; identifying the tools in mechanical engineering and identifying the components of an airplane. They were chosen due to the supported authentic materials exist in the college workshop laboratory, hangar, and airplane museum near the college. The results were the learners enjoyed the learning and improved the engagement in a group work, the critical thinking in finding fruitful information, the creativity in creating presentation, and the speaking skill in presenting in front of other people.

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International Conference on Islamic Economics and Financial Inclusion



The Effect of Country of Origin on Purchase Intentions: A Study of Indonesian Generation Z Customers

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Keywords: Generation Z, Country of Origin, Purchase Intention, Smartphone.

Historically, Indonesian smartphone market is continuing to rise to a positive number. Despite a slowdown in 2015, but in 2016 and this year, the smartphone market is back to growth. Data from IDC, during Q2 2016 there was a growth of 22% compared to Q1 quarter 2016, and around 7.9 million units of smartphones in circulation in the second quarter of 2016 (Kurniawan, 2016). The development of the smartphone market in Indonesia is quite promising, resulting in a tight competition among global companies. Many prior studies show that the use of country of origin is commonly used by global companies to show the level of good reputation and product quality. However, now there is a shift in the perspective of a product or a global company in the eyes of consumers from certain generations that tend to have similar behaviors and considerations compared to previous generations. Therefore, the purpose of this study is to determine the extent to which the effects of country of origin on the purchase intention of Indonesian generation Z customers. And also, it is conducted to know what key factors of Indonesian generation Z customers are looking when they see a smartphone. The results in this study indicate that the relationship between the uses of country of origin in smartphone manufacturers on customer purchase intention of generation Z customers is relatively small. They preferred product that have durability and also comfort for them. Finally, from this research it can be indicated that the approach of country of origin is no longer relevant to be used for Z generation customers.

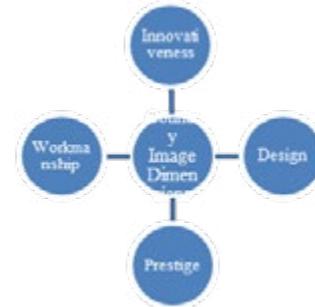


Figure 1 Dimensions of Country Image
Source: Roth and Romeo (1992)

1. Innovativeness — Use of new technology and Engineering advances
2. Design — Appearance, Style, Colors, Variety
3. Prestige — Exclusivity, Status, Brand name reputation
4. Workmanship — Reliability, Durability, Craftmanship, Manufacturing quality

This research is based on four dimensions above for the dependent variable (X) of country of origin or the country image on Indonesian Generation Z's purchase intention towards the image of the smartphone makers.

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Sustainability Reporting And Financial Performance

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Keywords: Sustainability reporting, asset management ratio, profitability ratio, liquidity ratio, market ratio.

Disclosure of sustainability reporting is essential in demonstrating accountability and improving the company's image for stakeholder perspective. The purpose of this study is to determine the effect of economic, social and environmental dimensions on the financial performance of the company. This study uses secondary data in the form of financial statements based on 17 companies that listed on the Jakarta Islamic Index in the 2014-2016 period. The result shows a regression model with a normality test used all of the variables to meet the assumptions of normality. Kolmogorov-Smirnov significance value greater than 0.05. Statistical t-test and the determination of the study have a different percentage on each variable. The conclusion of this study shows sustainability reporting has no effect to asset management ratio, this is due to intangible asset reporting in Indonesia is still very low, whereas six variables on three other ratios show that sustainability reporting effects on the profitability ratio, liquidity ratio,

and market ratio.

The result The researcher suspects that is because the investment on assets or sustainability activities should be able to increase the company's assets both tangible assets and intangible assets. The results of this study are consistent with research conducted by Suryono and Pratiwi (2011) which found that sustainability reporting does not affect the asset management ratio, but does not correspond to research conducted by Tarigan and Lesmana (2014),

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Qardhul Hasan Financing and Mustahik Revenue

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Keywords: Zakat, Sejuta Berdaya Program, Qardhul Hasan Financing, Mustahik Revenue.

The institution of zakat is a trusted organization in extending the benefits of zakat, donation and charity by designing programs according to the vision and mission of increasing mustahik revenue to alleviate poverty. Jati (2015) try to understand the impact of working capital financing to the income level of SMEs conducting by a causal-quantitative approach. We use proportionate stratified random sampling collected by questionnaire and interview at PT. BPRS Margirizki Bahagia Bantul. The study summarized that there is a

positive and significant impact between working capital financing to the SME income levels. This study investigated the impact of qardhul hasan financing on mustahik revenue through Sejuta Berdaya Program. Using secondary and primary data, this study was conducted descriptively through quantitative and qualitative approaches. Data collection techniques were described by unstructured interviews and observations to Kelompok Swadaya Masyarakat (KSM) in Mekarjaya, Pacet District, Bandung Regency, West Java, as one of

the beneficiaries of Sejuta Berdaya Program, LAZ Al Azhar Peduli Umat. Statistical instruments applied are correlation test and simple linear regression analysis. This research implies qardhul hasan financing has a positive impact on improving mustahik revenue. We find that LAZ Al-Azhar Peduli Ummat distributes about 96.15% of the cash receipt directly to the eligible programs. Beside it were statistically showed the contribution of qardhul hasan financing to increase revenue is 14.5%. We suggest for the purpose to broaden

the beneficiaries, LAZ Al-Azhar Peduli Ummat strategically should to maximize the distribution of zakat funds through various empowerment programs.

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Effects of SME Tax Rate Facilities, Financial Conditions, SMEs Types and Size on Tax Compliance in Tangerang

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Keywords: Financial Condition, Type, Size, Taxpayer Compliance, and Tax Facilities.

Fiscal policy is often regarded as important in stimulating investment in many aspects. Such as for capital expenditure, fiscal policy offering incentives to firms to invest in capital assets is seen as a useful tool to boost growth, particularly in times of weak economic performance. It is also seen as helpful in improving productivity through encouraging the use of more efficient capital assets. Given the changes that Indonesia SMEs tax policy has seen over the last two years that have made the available incentives more generous than they were, it is important to investigate the impact of this policy on decisions to assess its success, and recommend ways of improving the policy if appropriate in Indonesia SMEs conditions. This study aims to know about the effect of financial conditions, types, and size on tax compliance of SME in Bintaro with a reduction in tax rates (Tax Facilities) as a moderating variable. The population are respondents in the Bintaro, South Tangerang area. Data collection is done by giving questionnaires to respondents. The number of samples chosen using purposive sampling amounted to 70 respondents. Hypothesis testing is done using multiple linear regression methods. The results showed that

partially the financial condition and size did not affect taxpayer compliance. While the type affects taxpayer compliance. Simultaneously, the financial condition, type, and size of the UMKM taxpayer compliance in Bintaro with a decrease in tax rates as an influential moderating variable.

The Result Financial conditions do not affect mandatory compliance tax. Ordinarily caused by SMEs in Tangerang with high or low levels of profitability tend to have the same awareness to report taxes. This is contrary to the findings of Nastilova, Puspa, and Yunilma, 2014 which states that the perceptions of the personal financial condition of taxpayers and tax awareness have a significant effect on taxpayer compliance at KPP Pratama Padang but accordance with Nadia Monica (2013).

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How Do Financial Performance of Indonesian Banks Enhance Stock Return In Indonesian Banking Industry?

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Keyword: Banking Industry, Financial, Banks Enhance

The study of Megaladevi (2015) shows that financial performance will help investors to make investment decision. Financial performance analysis is the process of determining the operating and financial characteristics of the firms based on their financial statements. This study aims to analyze the influence of bank performance based on RGEN system of Banking Industry that listed on Indonesian Capital Market. In accordance with Bank Indonesia Regulation Number 13 Year 2011 the Bank's performance is assessed based on Risk Profile, good corporate governance, Earning and Capital (RGEN). The regression model used in this analysis. Therefore, to increase the company's stock price, the banking industry needs to pay attention on bank characteristics especially risk control and profitability factors.

Table 4.1. Descriptive Statistics

	N	Minimum	Maximum	Mean
LDR	96	53	112.54	85.0866
	11.66593			
GCG	96	1	4	3.0267
	0.50669			
ROA	96	-11.15	4.73	1.0051
	2.56934			
CAR	96	8.02	48.38	18.7943
	5.09106			
RTN	96	-50.67	349.01	17.9827
	60.62721			
Valid N (listwise)	967			

Source: Statistic Descriptive Analysis based on data

from Annual Report Indonesian Capital Market and Indonesian Capital Market Directory 2014-2017.

Note: Tabel 4.1. Presents a summary description of all the statistical variables. Measurement variables are as follows: PHS is stock return = $(Pt - Pt-1) / Pt-1$. Liquidity measured with Loan to Deposit Ratio (LDR). $LDR = (\text{Amount Loans Provided}) / (\text{Funds from Third Parties}) \times 100\%$; GCG determined by the composite value of good corporate governance (GCG) that is performed by banks based on self assessment system. The composite value indicates that the smaller composite value means the better the application of GCG, it is necessary to reverse the composite value to match the hypothesis that has been formulated. According to Tjondro and Wilopo (2011), reverse composite value on GCG is done by subtracting the highest composite with composite value of the company. (Reverse GCG = 5-n). Earning measured with ROA = EAT/TA . Capital is measured by Capital Adequacy Ratio (CAR) = $(\text{Bank Capital} / \text{Weighted Assets based on the risk}) \times 100\%$

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Effects of Global Economic Variables to Indonesian Government Securities

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Keywords: Capital Market, Interest Rate, Exchange Rate, Oil Price, Gold Price

This paper examines the impact of global economic factors including interest rates, exchange rates, oil prices, and gold prices on local currency sovereign conventional bonds and sukuk indices in the Indonesian capital market. The paper covers the period of August 2009 to December 2018 and uses the monthly data by applying the ordinary least squares regression method (OLS). The result indicates that exchange rates, global oil prices, and global gold prices have significant impact on the movement of the local currency sovereign conventional bonds and sukuk indices in Indonesia capital market. While global interest rates does not have effects on the movement of the local currency sovereign conventional bonds and sukuk indices in Indonesian capital market. The coefficient of oil prices will depend on the nature of the country, if the country is the oil consuming country, the aggregate impact is found to be negative, but conversely, if it is an oil exporting country, it will be positive (Naidu A, Goyari, & Kamaiah, 2016). The research variables that will be processed using data as summarized in the table 1 below:

Table 1. Description Variables

Variables	Description
SUN (SUN)	The SUN total return index provided by IBPA is the return from tradable SUN series in Rupiah.
SBSN (SBSN)	The SBSN total return index provided by IBPA is a return from tradable SBSN series in Rupiah.
Global Reference Rate (FFR)	Global Reference Rate in this case the Fed Funds Rate provided by the Federal Reserve which is the United States central bank (percentage)
Rupiah Exchange Rate Against US Dollars (KURS)	Rupiah Exchange Rate Against US Dollars provided by Bank Indonesia (Rupiah/USD)
world oil prices (OIL)	West Texas Intermediate/WTI world oil prices provided by NYMEX (USD/barrel)
World gold prices (GOLD)	World gold prices provided by COMEX (USD/troy ounce)

The total SUN return index (INDOBeX Total Government Returns) and the Total SBSN Return Index (Indonesian Government Sukuk Index / IGSIX Total Returns) provided by the Indonesia Bond Pricing Agency (IBPA). This index describes the movement of the rate of return of the entire bond where the calculation is based on the increase or decrease in bond prices, accumulated coupons, and return of annual coupons that are reinvested so that the index is more accurate in describing the performance of bonds (Indonesia Stock Exchange and Indonesia Bond Pricing Agency, 2018).

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EFFECT OF FINANCIAL PERFORMANCE AND MACROECONOMIC CONDITIONS ON STOCK RETURN LQ45

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Keywords: financial performance, macroeconomic conditions, stock returns, LQ45

The LQ45 category is one of the indexes that investors are interested in because it has high liquidity and large market capitalization. However, based on the LQ45 index in the past five years (2013-2017), in 2015 the LQ45 index significantly decreased. It indicates the LQ45 index does not always provide positive returns for the investors. The purpose of this study is to examine the effect of financial performance and macroeconomic conditions on the company's stock returns recorded in the LQ45 index. This study uses 38 samples listed in the LQ45 index for the period 2013-2017, selected using the purposive sampling method. Multiple linear regression is used to determine the relationship between financial performance components: Return on Assets (ROA), Current Ratio (CR), Debt to Assets Ratio (DAR), and macroeconomic conditions: BI Rate, Inflation, Gross Domestic Product Growth (GDP Growth), with stock returns. The result of this study indicates that ROA and GDP Growth have a positive and significant effect on stock returns. CR, BI rate, and inflation have a negative and significant effect on stock returns. DAR has a negative effect on stock returns, but statistically, the effect is not significant. And simultaneously, ROA, CR, DAR, BI Rate, Inflation, and GDP Growth have a negative and significant impact on LQ45 company stock returns.

Figure 1. Indonesia Investment Development



Source: Badan Pusat Statistik

Based on the figure shows Indonesian Investment development in both non-financial assets and financial assets increase every year. During the period 2013-2017, Indonesia's total investment value showed a fluctuating value

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Politics, Governance and Overlapping RTAs in Disruptive Era: Case Study of Indonesia and Turkey Trade toward OIC Countries

¹Dyah Titis Kusuma Wardani. and ¹Aliza Harry Tanthowy

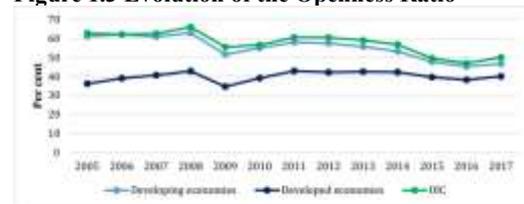
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Keywords: Trade Agreement; Political economy; Panel data; Gravity model ROA

This paper analyzes the effect of Free Trade and Regional Trade Agreement, openness, democracy and governance of Indonesia and Turkey bilateral trade toward OIC countries in disruptive era. Ricardo (1817) argued that trade efficiency is as a consequence from the creation international division of labor. Schumpeter (1942) described the ongoing process of remaking manufacturing systems, whereby less efficient countries give way to more efficient ones. This path of increased openness, with the reduction of cross-border barriers to trade leading to increased investment and trade flows and efficiency gains, has defined the globalization of the past few decades. Much of economic integration has occurred within this context The Gravity model is used to analyze the effect of FTA and RTA on trade flows. Instead of standard gravity model that use three basic variables such as RGDP reporter, RGDP partners and distance. We use extended gravity model equation by add more variables such as population as country's characteristic also exchange rate and inflation as macroeconomics variables. In this Gravity model, this research employs economic factors such as RTA and openness. Moreover, we use political factors such as democracy and governance (e.g., political stability) to enforce the political economy analysis of international trade. Dependent variable of this gravity model is total value of export (\$US). Data of trade flow of export from Indonesia and Turkey toward OIC countries is obtained

from UN-COMTRADE using Standard International Trade Classification (SITC) Rev.2-3 digits. Employing random effect, Maximum Likelihood Estimation (MLE) and Poisson Pseudo Maximum Likelihood (PPML), results show that this model robust for every estimation. Result also show that, some FTAs and RTAs of Indonesia and Turkey are ineffective due to overlapping. Turkey also has the same situation, since Turkey also has FTA and RTA with other economic community outside the OIC countries.

Figure 1.3 Evolution of the Openness Ratio



Source: UNCTADSTAT

Figure 1.3 shows top ten countries having the lowest and highest trade to GDP ratios in 2017. United Arab Emirates had the highest share of trade in GDP with 142.5 per cent while Sudan, Yemen and Comoros with a trade to GDP ratio ranged between 11 to 19 per cent had the lowest openness ratios

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Perceptual Mapping Analysis Of E-Commerce Based On Customer Perception (Case Study Of Tokopedia, Bukalapak, Shopee, Lazada, Blibli, And Jd.Id)

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Keywords: Perception, Perceptual Mapping, Multidimensional Scaling, E-commerce.

The increasing number of internet users is quite significant from year to year affecting the changing lifestyles of society. The increase in the number of internet users turned out to include an increase in online buying and selling transactions in Indonesia. Especially in the 6 popular e-commerce in Indonesia, namely Tokopedia, Bukalapak, Shopee, Lazada, Blibli and JD.ID. Who compete to provide the best offer to consumers. This study aims to determine the perception of mapping from six e-commerce brands in Indonesia, namely Tokopedia, Bukalapak, Shopee, Lazada, Blibli and JD.ID based on consumer perceptions in Indonesia. This consumer perception is measured by six attributes, namely usability, trust, merchandise assortments, service, promotion and security. The research method used is a quantitative method with a descriptive type. The method of data collection was done through the distribution of online questionnaires to respondents in Indonesia, as many as 400 respondents. The sampling used is non probability with purposive sampling. The data analysis technique used is Multidimensional Scaling (MDS) or perceptual mapping. The results of the study show that Tokopedia occupies the first position that is superior to trust attributes, service, and security. Shopee ranks second and excels at attributes usability, merchandise assortment, and promotions. Then the third position was followed by Bukalapak, fourth place was filled by Lazada, Blibli was in the fifth position, and JD.ID was in the last position. Suggestions given by Tokopedia and Shopee must continue to maintain excellence in each attribute and improve the attributes those are in the second or third position, so that it still has a good perception in the minds of consumers. As for Bukalapak,

Lazada, Blibli and JD.ID it is recommended to try harder and improve deficiencies in each attribute in order to get a good perception in the minds of consumers.



E-commerce user percentation in Indonesia

According to the article from MoneySmart (2017, December 28th) Many people doing business online through the website or social media because it more effective and the most important thing because doing business via online can reduce their operational expense for the marketing. People that doing business through the online business they can market or make a promotion of the product as widely as possible.

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Measuring Contagion Risk on Banking system in the Digital Finance Era

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Keywords: contagion, systemic risk, interbank market, banking institution, shock.

Zakaria (2015) explains that the contagion effects can come from finance and economics. As an essential institution to the practice of national payment flow, banks always confront with various risk exposures inherent in them. An interbank interactions through interbank money market might yield higher systemic risks that can lead to a default. This study aims at determining the contagion effects towards Indonesian banks. This study used 18 bank samples who provided annual reports from 2007 to 2016. The measurement of the systemic risks was performed by using financial contagion risk index and was tested using Vector Autoregression method. Results show that there was a one-way causality pattern between banks as the research samples, covering BCA with Bank Mayapada, Bank Maybank, Bank Mega, and Bank Resona Perdania and also Bank CIMB Niaga with BCA, BRI, BNI, BTN,

Commonwealth Bank, J-Trust Bank, Bank KEB Hana, Bank Mega, and Bank Permata. Meanwhile, two-way causality occurs between Bank BCA and Bank Mandiri and vice versa. In addition, the impact of the risk pressure of a bank is not always positive, however, it is also negative in some cases, which means that the bank can take advantage of the shocked conditions experienced by other banks.

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Benefits Of Football Competition In The Economy Of Traders In Surajaya Stadion Lamongan

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Keywords: Football, Economy, Traders

Sport is a human creation and nature. More than that, sports is the creation and manifestation of the humanity. Because of that sport should be upgraded into culture even civilization (tono, 2016). Football is one of the most popular sports in the middle of the life of the community. People can enjoy football games through television or see direct football match at the stadium. Soccer has a huge impact on the economy. Football benefit society, especially a group of traders who are in Indonesia. Merchants can take advantage and benefit of the presence of football competition in the field of economy. The methods used in this study is descriptive qualitative. Informants in this study is Surajaya Stadium traders. The process of collecting data through observation, interviews and the literature review. Techniques in analyzing data using interactive data collection and presentation of data. The theory used to analyze is of George Homans Exchange theory. Findings

from the data in this study there are several variations of data about football and the economy, through success and proposition proposition stimulus. The findings from the interviews, it was discovered that, football in the stadium Surajaya was able to increase revenue for the Group of merchants, ranging from food, beverages, accessories and jersey. Traders choose Open lapak selling around the stadium felt getting a lot of profit. Traders choose Open lapak selling around the stadium because of the many surajaya Stadium community enthusiasm.

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The Role of Regional Government Expenditures on Regional Economic Growth in Indonesia

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Keywords: economic growth, data panel, government expenditure, and fiscal policy

This research aims at empirically proving the composition of local government expenditure (education, health, marine and fisheries, agriculture, and general allocation fund) on economic growth in 18 provinces in Indonesia from 2010 to 2015. The model used in this research is panel data regression. The research results indicate: Firstly, the government expenditure component for marine and fisheries has the greatest contribution in driving economic growth in Indonesia, and this just suits the shape of its territory with 2/3 of it consisting of waters. Secondly; the government expenditure component for agriculture give the second greatest contribution after marine and fisheries expenditure, which suits the employment absorption in Indonesia, i.e. 35 percent of them is absorbed in agriculture sector. Thirdly; the Government expenditures for education and

foreign investment have no influence on local economic growth.

The result The Supreme Audit Agency's opinion on Regional Government's Financial Statements has negative relationship with regional economic growth. Insofar, regional government has yet optimized performance-based budget. What has been implemented is limited merely to budget absorption, and this has not had any impact yet on the outcome of each program being implemented. This research confirms Mauro (1995)

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Logistics Performance of Countries and Its Relationship to Economic Growth: A Panel Data Analysis

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Keywords: logistics, logistics performance, economic growth, productivity, panel data

Globally, logistics and supply chain have emerged as significant growth factors in most nations. The role of logistics in the economy is that it supports the movement and flow of many economic transactions. It is an important activity that facilitates the sale of practically all goods and services and consequently boosts the competitiveness of a country in terms of potential inflows of investments and productivity. Improving the efficiency of logistics operations has been posited to make an important contribution to the economy as a whole. Hence, this study aims to examine the relationship of country-level logistics performance indicators to economic growth. Using panel data regression analysis on the Logistics Performance Index

(LPI) scores and Gross Domestic Product (GDP) of 146 countries for the years 2010, 2012, 2014 and 2016, it was found that the quality of trade and transport infrastructure. Control variables - manufacturing value added and inflation were also found to be significant predictors, contributing positively to GDP. Corresponding policies are proposed.

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Factors Affecting Customers' Satisfaction and Loyalty In Sharia Financing for Small and Medium Enterprises

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Keywords: sharia, financing, SME, satisfaction, loyalty.

Sharia banking, in light of intense competition, must be able to create loyal customers as a source of sustainable income. The advantages of sharia banking products are schemes of profit sharing and conformity to religious aspects. However, sharia banking managers must not overlook the service quality as a traditional factor of forming loyalty. This study investigates the effects of quality services, fair financing schemes, and religiosity on customers' satisfaction and loyalty. This research focuses on Islamic finance for Small and Medium Enterprises (SME), where most of the researches conducted still focus on the aspect of customer financing. The results of the path analysis made on the answers of 127 respondents showed that service quality factors, fair financing schemes, and religiosity had a positive as well as significant effect on customer satisfaction with a determination coefficient of 0.513. Service quality, fair financing schemes, religiosity, and satisfaction have a significant and positive influence on customer loyalty

with a determination coefficient of 0.414. The study also found that fair financing schemes have the most considerable influence on satisfaction with a coefficient of 0.412.

The result Abduh et al. (2013) and Rama (2017) stated that ownership factors of accounts in other banks (including conventional banks) and compliance with sharia schemes can affect customers' transfer behavior to other products. It is possible for one SME to evaluate the offering of products from others both conventional and sharia banks.

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The Moderating Effect Of Switching Cost On The Influence Of Price And Service Quality Towards Switching Intention

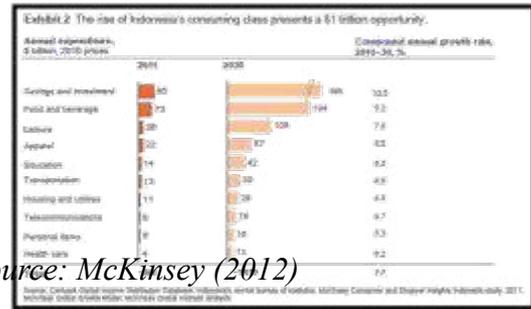
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Keywords: Islamic banking, Sharia compliance, switching intention in bank, CARTER, MRA

A study conducted by McKinsey (2012) shows that the banking institutions in Indonesia in 2030 have the prospect to rank first in public expenditure. This study aims to identify the role of switching cost as a moderating variable in the influence of price and service quality on switching intention. It also attempts to answer the current state of Islamic bank customers in Indonesia by using Reinforcement Theory in the context of switching intention by determining whether price, service quality, and switching cost variables play an important role in customer switching intention studies. The sample in this study consists of 239 customers from 5 sharia banks with the highest customer loyalty index in Indonesia. The data were collected through offline and online questionnaires and then analyzed using Moderated Regression Analysis (MRA). The results of this study proved that price and service quality is the main predictor of switching intention of sharia bank customers in Indonesia. In addition, switching costs successfully moderate the effect of service quality on switching intention. This study also discussed the relation to theoretical, methodological and practical issues.

Figure 1: Predicted Household Expenditure Post in Indonesia Year 2030



Source: McKinsey (2012)

The number of alternative choices of banks in Indonesia enables customers to flexibly switch behavior. Based on the fact that the majority of Indonesian population is Muslim, it should be a distinct advantage for Sharia banks in acquiring new customers.

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Malang City Residents Enthusiasm about Muamalat Banks Product

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Keywords: Malang City Residents, Bank Muamalat Products, Enthusiasm

Bank Muamalat was the first sharia bank to appear in 1992, and successfully passed the 1998 crisis. This bank is also among the most protected banks from negative spreads and does not need to be given any liquidity assistance by Bank Indonesia. Bank Muamalat has spread to almost all cities in Indonesia, including in Malang. The study aims to determine the interest of the people of Malang city on Bank Muamalat products. The population of this study is the people of Malang. The sampling technique uses purposive random sampling, while the object of this research is Bank Muamalat products, Data collection uses techniques, interviews and questionnaires. Data analysis techniques use quantitative descriptive. The results of this study state that the enthusiasm of the Malang community towards Islamic banks is very high. The three types of products that have the greatest interest are Murabahah and Mmq for service financing, then Special Ratio Deposits for third-party funds. Malang people are very eager to move from conventional banks to Bank Muamalat products. (Danar, 2012) explains that the growth of the number of

Islamic bank customers comes from conventional banks, without leaving conventional banks, meaning Conventional banks tend to remain the top choice.

Tabel 4.5 Keyser-Meyer-Olkin (KMO) Score

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.772
Bartlett's Test of Sphericity	Approx. Chi-Square	724.214
	df	190
	Sig.	.000

Source: Appendix 6 SPSS Output (2019)

Based on Table 4.5 shows the value of KMO MSA obtained from this study, which is equal to 0.772, meaning that more than 0.50 then it is feasible to do the next stage. And the Bartlett's Test of Sphericity = 724,214 statistic with a Significance = 0,000 less than 0.05 indicates the adequacy of the sample has been fulfilled.

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Readiness of the Indonesian Community in Implementing Fintech as Financial Innovation

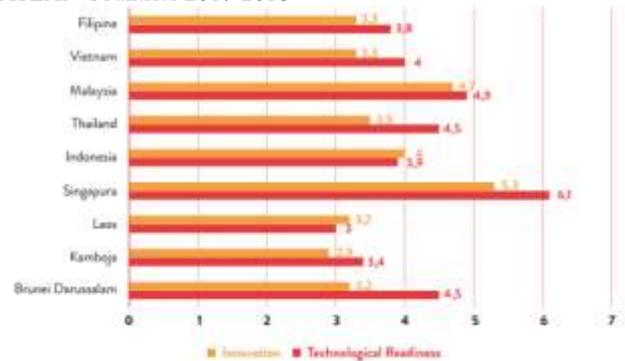
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Keywords: Fintech, Innovation in Financial Services, Industry 4.0, Bank Indonesia, Financial Services Authority (OJK).

The strict competition between banks and fintech does not only occur in developed countries, but also in emerging markets. However, this competition has not been observed in detail in Indonesia. The purpose of this literature review is to evaluate the fintech implementation progress in Indonesia and the readiness of the community to use fintech services. However this is such a new topic, the research method used is a literature review of various library sources, especially from Financial Services Authority (OJK) and Bank Indonesia. Literature review shows that the presence of technology-based financial services in Indonesia cannot be rejected and avoided in line with the development of information and communication technology. The Indonesian people are still not ready to use services provided by fintech, but prefer banking services due to ignorance of fintech services in Indonesia related to innovations and new financial products. In addition, smart mobile and internet users only use a small number of applications available on their devices that are placed in great pressure for startup companies to increase product awareness (Perez, 2015).

Figure 2. Comparison of Technology Readiness and Innovation in ASEAN Countries 2017-2018



Schwab (2015) & Saka-i-Martin (2018) said that Singapore and Thailand is counted as countries in ASEAN that have had an agenda to face the Indonesian revolution 4.0. Including A.T. Kearny (2017) also categorized these two countries belonging to an early stage of implementation of the 4.0 industrial revolution. Even Singapore is mentioned as a leader in the 4.0 industrial revolution initiative in ASEAN. Regarding to A.T Kearny, it is known that in the next four years, Singapore has planned to invest around SGD 3.3 trillion for research and development, as well as the development of manufacturing industries. As well as around SGD 4.5 trillion to transform individuals by facilitating small and medium industries to access higher technology.

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The Volatility Risk Of World Oil Prices On The Return Index Of Sectoral Stock Prices In Indonesia: A Garch-M Method Approach

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Keywords: world oil prices, volatility, risk premiums, sectoral stock index, GARCH-M.

This study aims to investigate the effect of external variables and risk premiums on sectoral stock index in Indonesia. External variables in this study include world oil prices and their volatility, while risk premiums are measured using standard deviations obtained from the historical price of sectoral stock index that illustrate the volatility risk of sectoral stock index in volatile condition. The data used in the study are secondary data using GARCH method in mean (GARCH-M). The results show that external influences, namely world oil prices, have a significant and direct effect on sectoral stock return index, except for the consumption sector stock index. This is because the consumption sector stock index is a defensive stock, therefore external factors such

as world oil prices will not affect the movement of this sector's stocks. On the other hand, the volatility of world oil prices and the risk of volatility (risk premiums) do not influence the return index of sectoral stocks. Christanty (2013) stated that ARIMA model is identified by looking at the number of the most frequently found star symbols from ACF and PACF pattern in correlogram analysis. This research

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Energy Cost Efficiency in a Platinum-Ranked Green Home

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Keywords: energy efficiency, cost, green home, greenship home, home design

An eco-friendly home, well known as green home, is a home building that pays attention to sustainability aspects of the environment, both in the construction process and in the use of the building. This article reviews the efficiency of energy costs according to building utilization. A green home designed was developed with a focus on energy efficiency. The draft home design developed was validated by several experts before submitted to get an assessment from Green Building Council Indonesia (GBCI). The analytical study then used to calculate the energy requirements and energy costs of green home design which has gain a platinum rank according to greenship home from GBCI. The result shows that the platinum-ranked green home concept produce 48% energy savings compared to the non-green home concept. The highest cost savings is come from electrical appliances for thermal conditioning, whereas a green home does not use electrical air conditioner for thermal conditioning. The calculation of energy costs from the designed building is based on building utilization in the forms of resident activities. The household sector does absorb energy consumption only 10.2% of the total national energy consumption with an increase in energy consumption of 3.1% in the last 20 years (Gunawan et al., 2012).

Figure 2. Eco-friendly home design



In reference to the data of dimension and relation among rooms, a design is made (Figure 2). Such design is the final result after the validation form related experts. Assessment by GBCI on the design resulted in platinum rank based on a version of Greenship Homes.

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Production Cost of H-brick from Waste Addition as Wall Material

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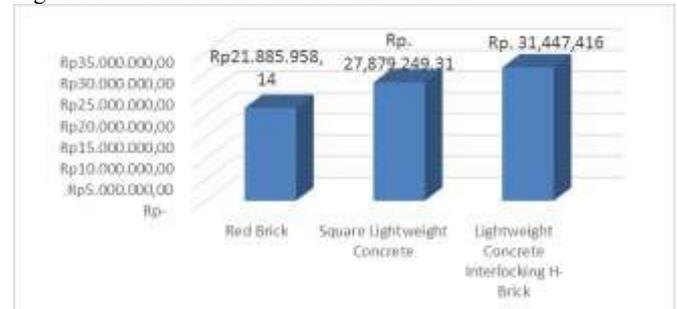
² Tokyo Institute of Technology, Japan

Keywords: production cost, lightweight concrete, H-brick, waste styrofoam, fly ash

Interlocking H-brick lightweight concrete is an innovation wall material which is barely using mortar between bricks. The presence of lip elements on the interlocking H-brick allows bricks to be paired permanently and automatically interlocked and symmetrical. The H-brick is more resistance to the earthquake, produce a better facade, also the rapid installation process. This research used the interlocking H-brick prepared with food packaging styrofoam waste and fly ash as material addition. The aim of this article was to compare the production cost of the interlocking H-brick lightweight concrete with two others wall material that was currently widely used, namely red brick and rectangular lightweight concrete. The calculation of production cost was applied to a 98 type of housing. The calculation of material requirements and production cost in accordance with SNI 6897:2008 and the Unit Price of Principal Activity Building Construction Work and Residential of Surakarta City for the year 2018. The results obtained the production cost of red brick, rectangular lightweight concrete, and interlocking H-brick was Rp. 21.885.958,14, Rp. 27.879.249,31, and Rp. 31.447.416, respectively. The results showed that interlocking H-brick lightweight concrete prepared with waste materials addition used in this research gain the highest cost among the other two materials. Plastic waste is still a classic problem in

Indonesia, especially in big cities. Indonesia in the second rank after China as a plastic garbage contributor (Puspita, 2018). Styrofoam made from co-styrene polymers or with other names styrene polpy is another form of plastic. Styrofoam is usually used as an electronic wrapper, fast food, and fruit (Setyowati, 2014).

Figure 3. The Production cost of Wall Material



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THE COMPETITIVENESS OF INDONESIAN COCOA PRODUCTS AND THEIR DERIVATES IN THE INTERNATIONAL MARKETS

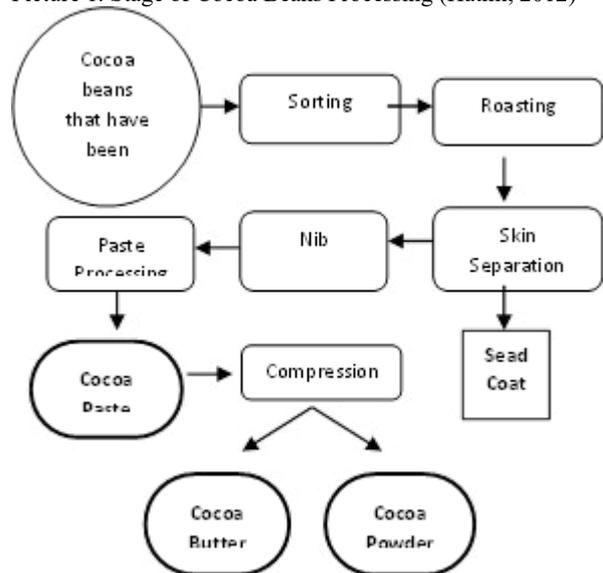
Istis Baroh ¹

¹ Universitas Muhammadiyah Malang, Indonesia

Keywords: cocoa, competitiveness, international market.

This study aims to analyze the competitiveness of Indonesian cocoa and its several derivative products from 2006 to 2015 in two importing countries. Germany and The USA are chosen as the representative of the international markets because of three reasons. First, those two countries are the most prospective markets of cocoa products. Second, they consume large amount of cocoa processing products for their industries. Third, as the core players of trade, they always import processed cocoa products from Indonesia in the past decade. We use Revealed Comparative Advantage (RCA) approach to analyze the competitiveness of processed cocoa products, followed by Revealed Symmetric Comparative Advantage (RSCA) approach to avoid upward-biased problems from the previous steps. RSCA enables us to manipulate the RCA index to be symmetrical with the interval values between -1 and +1 (Prasad, 2004). The results showed that in Germany, cocoa paste products and cocoa fat were the two products that have high competitiveness, whereas the cocoa powder was not competitive. In The USA, Indonesian cocoa fat was competitive while cocoa paste and cocoa powder were not competitive. According to Syadullah (2012) there is a causal relationship between the implementation of export tax policies and the increasing domestic cocoa processing industry.

Picture 1. Stage of Cocoa Beans Processing (Hatmi, 2012)



Basically the level of competitiveness of a country in the international trade arena is determined by two factors, namely the comparative advantage factor and the competitive advantage factor.

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The Effect Of Dry Land Governance On People's Welfare

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Keywords: dry land governance, people's welfare, maqashid al syariah, Islamic law

The objective of this study is to analyze the influence of dry land governance on people's welfare in Madura Island in Islamic perspective. This study uses a quantitative approach which strengthened by syar'i qualitative analysis and kasyf analysis. The objects of this study are 4 districts in Madura Island which is selected by using non probability sampling technique. The samples are Bangkalan, Sampang, Pamekasan, and Sumenep. The analysis technique used in this study is Partial Least Square (PLS).

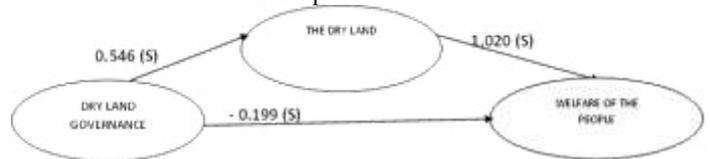
The result of the study shows that dry land governance has a negative and significant effect on people's welfare in Madura Island. Whereas the Agricultural productivity has a positive and significant impact on people's welfare in Madura Island.

This study also proves that the multidisciplinary and dynamic modification model of Ibn Khaldun has been applied to the activity of dry land agriculture in Madura Island, along with that, Zadjuli theory about line of poverty and prosperity can be applied to measure the level of welfare in Madura Island, so it can be said that Dry Land Governance is not yet kaffa according to Islamic law. Based on intuitive or kasyf analysis, proved that Dry Land Governance in Madura Island has been unsuitable to Koran Al A'raf verse 56-57 but the low rainfall level in Madura Island as the shadow of rainfall in East Java mainland is suitable to Koran Al Baqarah

verse 265. Shar'i quantitative analysis in this study using analytical techniques Partial Least Square (PLS), which is also known as Structural analysis Equational Modeling (SEM) based on the variance, or often called Component Based SEM. PLS is developed first as a general method for estimating path models using latent constructs with multiple indicators (Ghozali, 2008: 17)

Having tested the validity and reliability on all latent variables are the results valid and reliable, and the testing of samples bootstrap = 500 yielded significant results, then followed in the analysis of the diagram as follows:

Picture 1 Variables Relationship



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The Effect Of External And Internal Factors On Financial Performance Of Islamic Banking

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Keywords: GDP, Inflation, Interest Rate, FDR, ROA

Research on the sharia bank financial performance level was first conducted by SudinHaron (1996), then similar research was conducted by Anna P.I. Vong(1997), M. Kabir Hassan (2002), Abdel-Hameed M. Bashir (2003), Samy Ben Naceur (2003), Muhammad Farhan, Khizer Ali and ShamaSadaqat (2011), and Nor Hayati Ahmad (2011). Macroeconomic factors and internal factors are variables that have an effect on sharia banking. These factors are GDP, inflation, and interest rates, FDR, OER which can affect directly or indirectly the financial performance of sharia banks in Indonesia. The result has shown GDP has a significant positive effect on ROA, it is match with several previous research, Inflation has no significant and negative effect on ROA, because when inflation central bank will give policy to increase BI rate, and sharia bank doesn't effect with interest rate because interest is riba, interest rate has no significant effect on

ROA because sharia bank doesn't effect with the interest but use profit and loss sharing to financing, so in macroeconomic the result only GDP has significant and positive effect on ROA. The result has shown FDR has no significant effect on ROA, but has positive effect and the result match with previous research in relationship FDR and ROA, OER has negative significant effect on ROA and match with previous research (Sianturi, 2013). According to Pohan (2008: 53) Development of an unnatural interest rate can directly disrupt banking development.

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Comparison Of E-Commerce Transactions In Conventional Accounting And Sharia Accounting

Eko Sudarmanto, SE. MM.¹

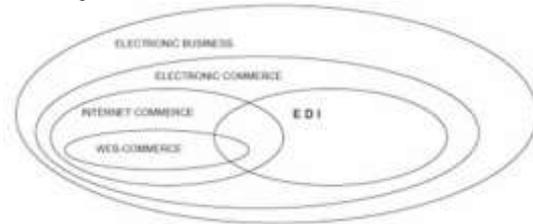
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Keywords: muamalah, e-commerce, bai' as-salam.

Muamalah and business develop along with technological developments and human needs. When the business model and muamalah develop, this development must be responded to appropriately and carefully. Not only related to the aspects of benefits, harm and legal conditions that govern it, but also must be prepared and developed the model and accounting system needed. One form of the new trading business is e-commerce. Namely business activities involving consumers, manufacturers, providers, and brokers using computer networks, namely the internet. So that e-commerce transactions have several characteristics, including: unlimited transactions, anonym transactions, digital and non-digital products, and intangible goods. Based on several characteristics found in e-commerce transactions, the applicable law related to the transaction is the law regarding long-distance buying, salam and salaf law, hawalah law and electronic money. With the different viewpoints and legal basis for e-commerce

transactions, the accounting treatment between conventional and Sharia systems also has several differences. Sharia Accounting Bai' as-Salam is a buying and selling accounting system that is most suitable for e-commerce transactions. Al-Kasani said, that ijab and qobul are by message, even though the seller and buyer are not in one place, then buying and selling like that is legal.

The scope of e-commerce



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Theoretical Inventory of Compliance Behaviour

Jama Mohamed Sareye Farah ¹

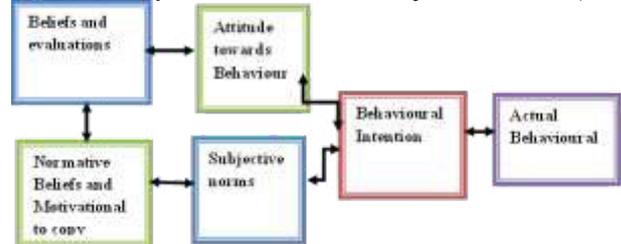
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Keywords: reasoned action, planned behaviour, Islamic ethics, civic engagement, perception towards law enforcement.

This paper attempts to investigate further the prior studies of reasoned action and planned behaviour models. The prior studies in the area of compliance behaviour used reasoned action and planned behaviour models. The prior studies clearly have shown that there is a lack of theoretical framework integration in compliance behaviour area since most of the previous studies only concentrated reasoned action and planned behaviour models. This study summarised and synthesis the prior studies on reasoned action and planned behaviour models. This literature review proposed the theory of knowledge Imam Abdul Hamid al-Ghazali thoughts. The theory of knowledge Imam Abdul Hamid al- Ghazzali Thoughts represents three independent variables. The proposed external independent variables are Islamic ethics, civic engagement, and perception towards law enforcement. The previous findings on the reasoned action and planned behaviour models were mixed at best. The proposed theoretical model for this study expects to contribute to the methodology of the study. In the case why the individual need to plan to comply with certain behaviour. Individual's person must keep in mind the most significant point for the planned behaviour model is the intention. Therefore, the original theory reasoned action; the assumption was that only two factors

determine behavioural intention. These are the attitude and subjective norms. The previous scholars were found that the reasoned action overall determinants was very weak and only explains the straightforward behaviour those are under the volitional control. Farah Masturah, (2013), Zainudin Othman, (2013).

Fig. 2.1: Theory of reasoned action Ajzen & Fishbein (1975).



In general, as more important referents approve than disapprove of a specific behaviour, and as more of them actually perform that behaviour, the more likely individuals are to perceive a greater social pressure towards performing the behaviour Ajzen & Fishbein, (1975).

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Theory of Knowledge in Designing Zakat Payment Model

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Keywords: Compliance behaviour, Theory of knowledge, Selangor, Mandatory charity, Islam Paper type Conceptual paper

Objective- This study concentrates on coming out the conceptual model on the compliance behaviour on zakat payment and theory of Knowledge in designing the zakat payment Model. Zakat is a mandatory charity that is paid by every Muslim as part of their duty to the creator. The general objective of this study is to look at what are the factors that affect compliance behaviour on zakat paying outside the two conventional models of reasoned action & planned behaviour models.

Design/methodology/approach – This study reviews and synthesises the relevant prior studies on compliance behaviour on zakat paying. The study built a theoretical model and proposed a conceptual model to investigate the compliance behaviour on zakat payment further.

Findings – This study comes out the suitable methods to further investigate compliance behaviour on zakat paying. The suitable method is an integration of the theory of knowledge imam Abdul Hamid al- Ghazali

together with the conventional reasoned action and planned behaviour models into the compliance behaviour on zakat paying. The findings of this study are not only relevant and applicable in the state of Selangor but also to the rest of the states in Malaysia.

In this section, the theoretical model of this study will concentrate on the previous theoretical model of Ajzen (1991). To further explain the compliance behaviour on zakat paying. This study chooses the conventional reasoned action & planned behaviour models, & theory of knowledge imam Ghazali Thought to tackle compliance behaviour.

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Land Tenure System and Farming Household Food Access

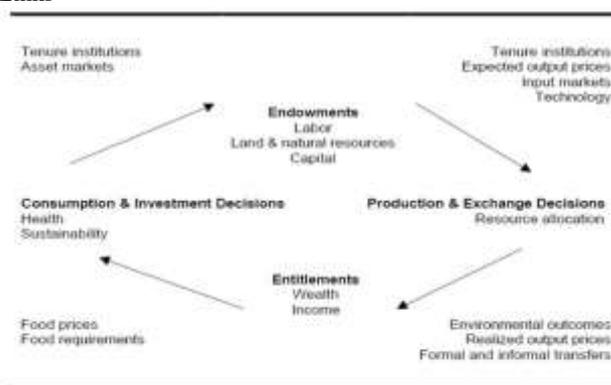
Camille A. Villapando¹, Cherry Lou R. Nuñez¹, Rachel A. Mariano¹, Melodee Marciana E. De Castro¹, Faustino Q. Arrienda¹

¹ University of the Philippines Los Baños, Philippines

Keywords: land tenure, food accessibility

This study explores the association of land tenure to food access in selected villages in the municipality of Pigcawayan situated in the North Cotabato province of the Mindanao peninsula, Philippines. Using the chi square test of association on land tenure variables (zero harvest payment agreement, confidence in tenancy, range of number of sacks sold, and percent payment) and food variables (experience hunger with no money, experience credit for food, and days without enough food), results showed a significant association at alpha 0.05 between zero harvest payment agreement and confidence in tenancy with days without enough food. At alpha 0.10, results showed a significant association between zero harvest payment agreement and confidence in tenancy with experience hunger with no money and days without enough food. Based on the focus group discussion conducted on 56 respondents, the study showed that while the farmers can eat three times a day, their access to food can only be sustained if they would continuously work, even on land recovery days, in order to generate enough income to buy food for household consumption. The Philippines is considered to have one of the worst land tenure problems in the world (Vargas, 2003). Agricultural families have more poverty incidence than non-agricultural households in the Philippines where land access is limited for poor farmers and agricultural tenancy is still the common practice (Ravanera, 2017). Agriculture remains as the main source of livelihood for Filipinos in rural areas, thus access to land is a necessity in alleviating poverty and attainment of food security.

Figure 2. Land Tenure and Food Security: Reformulating the Links



This entitlement as Maxwell and Wiebe (1998) referenced Sen (1981), is defined as the budget or choice that describes goods and services that household members has the capacity to purchase. Thus, all decisions are affected by production, external factors and economic changes will be finally defined as stated. In this framework, food accessibility is at the movement from entitlements to consumption and investment decision, where a part of resources is allocated for food.

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Sharia Peer to Peer Lending For Small and Medium Enterprise

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² Universitas Muhammadiyah Palembang, Indonesia

Keywords: Financial Technology, Peer to Peer Lending, Crowdfunding, Small and Medium Enterprises, Halal Loan

Financial Technology: Online lending business is getting a bad perspective generated by the conflict of the default loan. Fintech disburse the loan easily to the unbanked small and medium enterprises (SME/UKM) with the very high of interest and without carryout the 5C principle in lending. Does this fintech have some particular pattern in giving the interest rate and the mitigation which brings no conflict? While in this Age of Disruptive Era 4.0, peer to peer lending is like the most favourite product in borrowing money instead of waiting for the bank services which is have less priority to the SME, have rigid and complex rules by the regulator. This article is going to discuss the rule of

Financial Techology: Peer to Peer Lending for SME in a safe and halal ways. The equivalent rate is the same role as the interest in a conventional bank which provides an overview of the rate of return on investment according to Vera Susanti (July 2015).

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Performance Analysis of BAZNAS Kotabaru Regency, South Borneo, Indonesia

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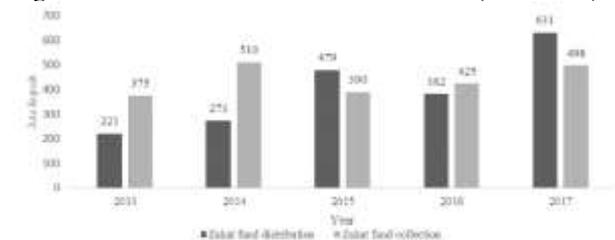
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² International Islamic University of Malaysia, Malaysia

Keywords: National Zakat Index (ZNI), poverty, zakat management performance

Poverty and equality are two major problems of developing countries, including Indonesia. Zakat is one of the obligatory act in Islamic teaching, specifically the third of ‘Rukun Islam’. Zakat is the act of giving out certain amount of someone’s wealth that meets several conditions. Per 31 December 2015, the potential of zakat in Indonesia was recorded to be 286 trillion rupiahs, while the actual amount of collected zakat was recorded to be only 3.75 trillion rupiahs. This fact shows that zakat management has not been optimally done. The objective of this study is to assess and evaluate the performance of zakat management including the contribution of government, contribution of society, zakat institution performance, and the impact of zakat on the society’s prosperity in Kotabaru Regency, South Borneo. This study was done by using survey method through questionnaire-interview. Sampling technique that was used was purposive sampling method. The analysis tools that was used in this study was National Zakat Index (ZNI) with the Multi-Stage Weighted Index assessment method. The result of the study showed that zakat management performance in Kotabaru Regency, South Borneo was considered to be good with the index value 0.66. Shalehanti (2017) conducted a study regarding the analysis of BAZIS South Jakarta’s performance in zakat management.

Figure 1. Zakat fund collection and distribution (2013-2017)



Institutional indicator has four derived variables, they are variable of collection, zakat management, distribution, and reporting. Collection variable scored 4. This score indicated that the growth of zakat collection which was under BAZNAS Kotabaru Regency, South Borneo was between 15 and 19 percent (specifically, 17.08 percent). Zakat management variable scored 4. This score indicated that BAZNAS Kotabaru Regency, South Borneo has several programs, strategic plan, and standard operational procedure, however, it had not obtained ISO certificate. Distribution variable scored 4, that means, the BAZNAS’s ACR was 126,6 percent or more than 90 percent. This record showed that distributed zakat fund was higher than what had been collected. The amount of zakat fund that was distributed in 2017 was increased by Rp 133 085 836 that was obtained from previous year fund. Zakat fund distribution to social program (consumptive) was conducted for 9 to 12 months or once a year. Zakat fund distribution to economy program (productive) was conducted less than six months or once a month. Meanwhile, zakat fund allocation for dakwah – missionary- program was 9.82 percent (between 7.5 to 10 percent).

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Developing FinTech and Islamic Finance Products in Agricultural Value Chain

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¹University of Indonesia, Indonesia

Keywords: agriculture, value chain finance, financial technology, Islamic finance

To meet the global population needs, it is projected to at least eighty billion dollars in investment per year to support the food security until 2050. It is widely known that the agriculture financing growth has stalled due to many reasons. Islamic finance has potential to spur the growth of agriculture financing to promote global food security. Meanwhile, agriculture in Indonesia is still nowhere to its potential. It is hindered by an inefficient and underdeveloped downstream segment, low access to financial and technology. This is a huge opportunity for Islamic finance in helping to bridge the gap through value chain finance approach as one of the strategy to reduce risk and give socio-economic spill-over effect along the chain. Islamic finance can promote agricultures sustainability and a more efficient process with FinTech enabled platform.

Figure 3. Common Value Chain Financing Mechanism
Source: Compiled by Authors', 2019



The common type of value chain financing in rural market is internal value chain when input supplier or trader provide credit to the smallholder farmer which takes place within the value chain.

The multiple casestudy proposes a sharia compliant community based financing model in agricultural value chain practice with FinTech enabled platform. The result is this model integrating all actors from different market segmentation (landowners, suppliers, farmers, brokers, retailers, investor) into an Islamic value chain financing platform. However, determining buying intention, partnership establishment, and technology infrastructure are crucial for its future implementation. The program use market system development which to linking the poor to markets and use private sector intervention in poverty alleviation and economic growth (Donovan, Franzel, Cunha, Gyau, & Mithöfer, 2015).

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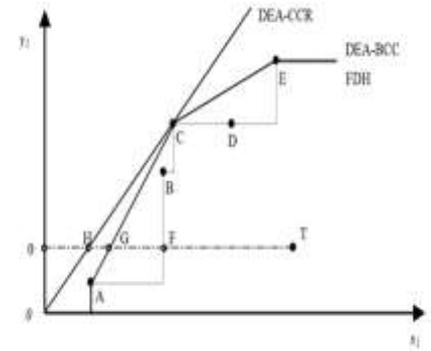
Social And Financial Efficiency On Indonesian Islamic Banks: Nonparametric Approach

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Keywords: Financial Efficiency, Social Efficiency, DEA, FDH, Social-Financial Efficiency Quadrant (SFEQ), Islamic Bank

Every single effort or process taken by of maqashid sharia Islamic bank to maximize output should also uphold a part of having Islamic values, so that maqashid sharia (masalah-sharia efficiency in order to objectives) would be automatically achieved. There were reached masalah. A some research conducted to measure Islamic bank company is performance using maqashid sharia framework. However, considered these studies were not explicitly addressing the issue of economically cost-saving strategies within the framework of efficiency efficient if it can measurement. It is therefore this paper aims to have minimize production financial and social efficiency in one assessment costs to produce framework that is social-financial efficiency quadrant certain outputs in the (SFEQ). Hence, in order to measure efficiency level of general



Islamic Banking Industry this study use Data Envelopment technological level and market price level (Farrell, 1957). Analysis (DEA) and Free Disposal Hull (FDH) method and employ Banxia Frontier Analyst 3.1 for data analysis. Picture 1. Frontier Non-parametric Deterministic Curve

Within the SFEQ framework, the study revealed that Sharia Panin Bank and Sharia Bukopin Bank are excellent since The FDH name mainly reflects the meaning of 'free both are within the first quadrant. Whereas Shariadisposal' (free disposal) and can be considered a model Maybank, and BCA Sharia are considered good at the whose linear combination coefficients are limited to 0 or second quadrant; Bank Sharia Mandiri (BSM), Bank $\lambda_j \in \{0,1\}$.

Muamalat, Bank Rakyat Indonesia Sharia (BRIS), Bank Negara Indonesia Sharia (BNI) and Mega Sharia are fair at the third; and Victoria Sharia, and Bank Jabar Banten Sharia (BJB) are poor at the fourth sequentially. It is urge Efficiency. Journal of The Royal Statistical Society, 120, p.253-281. for Islamic bank that are in low level of 'social efficiency' to have a critical policy to keep in line with the five factor

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Model of The Sharing Economy Platform in Indonesia

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Keywords: sharing economy, four model, Indonesian model

The sharing economy platform is a concept that is not yet presents the generic typology as intended. While its stable and will continue to grow. This is evidenced by the practical contribution is provides investors with various types of the sharing economy platforms developed, suggestions about model of the sharing economy that is especially in Indonesia. This research answers the question relevant for the Indonesian market. The foundation model of how the typology of the sharing economy platform of the sharing economy used consists of four models taking model in Indonesia. The theoretical contribution of this into account the level of control of the company towards research is the categorization of the sharing economy participant and the level of competition between model in Indonesia, given that there is no research that participant. Typology was developed through qualitative

analysis of data obtained by observing the four unicorn economy, and crowd-based capitalism, (D. Selloni, 2017). sharing economy companies from Indonesia from different platforms. From the results of this study, we will know the typology of the platform sharing economy model that is developing in Indonesia. So that it is expected to be a reference for business development towards the era of industrial revolution 4.0. However, sharing economy may interpret under different labels, such as: collaborative consumption, collaborative economy, on-demand economy, peer-to-peer economy, zero-marginal costp.

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illus, Hardcover

Determinants of Islamic Financial Literacy Levels: Comparison Based on Ethnographic Studies

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Keywords: Determinants, Islamic Financial Literacy, Behavioral Patterns, Ethnographic Studies

The researcher was interested to conduct this research as between the Bank or financial institutions and customers there have been inconsistencies on the results of previous studies regarding the factors that influence the level of Islamic financial literacy, both general and Islamic financial literacy. A research by (Isnurhadi, 2013) finds that individual factors (factors on one's knowledge of level, and income level are often used in this type of *muamalah* in Islam), promotion factors of Islamic banks research. Islamic financial literacy indicators consist of (public perception of the promotion of Islamic banking to knowledge, skills, beliefs, attitudes, and behavior based on introduce their existence), and government promotion the aspects of religiosity and Maqasid al-Shari'ah. The factors (public perceptions on government promotion communities compared in this study are the temporary activities to introduce Islamic banking), simultaneously sellers' community in Malioboro, Yogyakarta and the ASN give a considerable influence on public literacy on Islamic (State Civil Apparatus) community of the Regional banking with a fairly good model shown by the value of R-squared (R²) of 31% or 0.31. influence the Islamic financial literacy index are determined using ethnographic studies. The result is the education level has an effect on the financial literacy index in one community. But the results will be different when we compare between different communities. In relation to the Financial Socialization Agent, the Bank or Islamic financial institution acts as an agent. The close relationship

Through the calculation on the level of Islamic financial literacy, it is found that the level of Islamic financial literacy among street vendors in *Malioboro* is 64.51% while the level of Islamic financial literacy in the ASN/PNS community in *Wonosari* is 55.62%.

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Indicator	PKL Islamic Literacy Index (%)	ASN Islamic Literacy Index (%)
Basic Understanding	43.60	65.10
Advanced Understanding	64.00	50.50
Skills	60.67	58.00
Confidence	89.33	59.33
Attitudes towards Islamic Banks	88.00	42.33
Behavior	61.60	60.90
Islamic Financial Literacy Index	64,51	55,62

Analysis Of Oyster Mushroom Farming In The Highlands (Case Study in Sleman and Temanggung)

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Keywords: characteristics, feasibility, Profit

This study aimed to analyze the characteristics, costs, profit and feasibility of oyster mushroom farming in the highlands. Location determination was done purposive because the two districts are in the highlands. The respondents were selected using the snowball method and the number of the respondents were 32 people. The analyses used were descriptive method and t-test to test the differences in the average cost, income, profit and B/C. The results showed that there were differences in the input and process technology characteristics of Oyster Mushroom farming in Temanggung and Sleman Regency. Based on the t test, this condition also causes differences in profits and feasibility of farming, but there is no difference in the costs incurred. The profit and feasibility of oyster mushroom farming in Temanggung Regency are higher than in Sleman regency. However, the cost of oyster mushroom farming in Sleman Regency is relatively the same as the cost of oyster mushroom farming in Temanggung Regency. It is necessary to increase the potential of oyster mushroom farmers in Sleman Regency and strengthen the potential of oyster mushroom farmers in Temanggung Regency so that the quality and productivity of oyster mushrooms in the two districts can be stable and increase. Therefore, that it will have an impact on the income and profits of farmers. Mushrooms contain 19-35% protein, 9 essential amino acids, and 72% unsaturated fats (Widyastusi, et al., 2016).

Treatment	Sleman Regency				Temanggung Regency			
	Yes (person)	%	No (person)	%	Yes (person)	%	No (person)	%
Sorting	15	100	-	-	17	100	-	-
Grading	6	40	9	60	-	-	17	100

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Awareness and Knowledge Assessment of Sustainable Development Goals among University Students

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Keywords: Awareness, Knowledge, Sustainable Development Goals (SDGs), Chi-Square Analysis

The Sustainable Development Goals (SDGs) is built on the learning, academic research, campus management, successes of the Millennium Development Goals (MDGs), practices and impact as an organization (Décamps et al., consists of 17 goals as universal call to action to end 2017).

poverty, protect the planet, and ensure that all people enjoy JEL Classification: I25 - Education and Economic peace and prosperity. The assessment of people's Development

awareness and knowledge on SDGs is of paramount importance to support any subsequent actions. The awareness of SDGs is higher compared to the previous agenda MDGs only in particular emerging countries hence it requires a better progress after more than three years of its establishment. University students as the agent of changes are supposed to have a higher level of awareness and knowledge rather than average. When the university students have a better awareness and higher knowledge on SDGs, they can actively contribute in supporting, promoting, and achieving the development goals by making use of their academic background. The objective of this research is to assess the level of awareness and knowledge on Sustainable Development Goals (SDGs) among university students in Universitas Muhammadiyah Yogyakarta, Indonesia. Data for this research will be collected by field Survey and Questionnaire. This research will analyze data by using descriptive statistic and Chi-Square. We expect, this research found more than 50% students in UMY have good awareness and high

Accessibility of SDGs Information	Yes (%)	No (%)
Know the SDGs Website	38	62
Read news about SDGs	48.5	51.8
Watch SDGs video	40.5	59.5
See the SDGs Campaign in Youtube & Social Media	54.5	45.5
Have you ever heard the tagline of SDGs "Leave no one behind"	50	50

Table 3. Accessibility of SDGs Information

Table 3 shows the accessibility of SDGs information among university students. Previously, Table 1 had informed the results of assessment consisted of low access for 52% (104 students) and 48% (96 students) had high access to SDGs.

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comprehensive area of initiatives including pedagogy and

Recreational Value of Mangrove Forest and Tourists Willingness-to-Pay for Mangrove Conservation

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Keywords: travel cost method; mangrove forest; willingness to pay; conservation; recreation.

Mangrove forest produces ecosystem services benefiting human being such as for protection from the tsunami, abrasion, carbon sequestration, a place for fish nesting, and also for a recreational purpose. However, the values of mangrove forest including recreational value are often ignored. Several mangrove forests have been converted to other uses that commonly produce a more marketed product such as a shrimp farm. As a result, loss of mangrove could lead to massive economic losses for the surrounding community once disaster such as tsunami occurs. This study aims to analyze the recreational value of the mangrove forest and estimates the determinant of tourists' willingness-to-pay (WTP) for mangrove conservation. A mangrove forest in West Lombok Indonesia was chosen for the case study. Travel cost method was employed to capture the mangrove recreational value. Meanwhile, a logit regression model was run to estimates the determinant of tourist' WTP for mangrove conservation. This study found an average recreational value of mangrove forest as much as IDR1,269,950(USD 87.58) per visitor per year. The tourists' income, age, and distance of mangrove forest from home are significantly influencing their WTP for mangrove forest conservation. This study recommends the related policy maker to improve tourism facilities to attract more visitor to come. The travel cost method estimates the recreation value of a site with a price proxy that is reflected in the amount of time and money that visitors spend on traveling to certain sites (Smith, 1989).

Table 2. Summary statistics of variables

Table 2 shows that the average number of visits to the Lembar mangrove forest was about four times. The travel cost of respondents was IDR 65,600 on average. The average income of respondents is IDR 1,429,700.

Variable	Mean	Standard Deviation
visit	3.77	1.503
WTP	.69	.464
TC	65564.36	55957.73
income	1429702.97	995117.536
age	26.21	9.849
sex	.49	.502
educ	11.93	3.077
distance	26.79	18.143
Env.awareness	4.69	.464

Meanwhile, age of respondents was 26.2 on average and the average length of education was 12 years. Distance from home of the respondents to the mangrove forest was 26.79 kilometers on average.

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The Effect Of Corporate Governance On Relationship Between Corporate Social Responsibility And Firm Size With Earnings Management

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Keywords: corporate social responsibility, company size, corporate governance, earnings management

The study aims to examine the effect of corporate social responsibility and firm size on earnings management, and examine the role of corporate governance as a moderating variable in the relationship between corporate social responsibility and company size with earnings management. The variable corporate social responsibility is measured by the amount of CSR costs, and the size of the company is measured by total assets. Corporate governance is measured by the proportion of independent commissioners. The concept of earnings management that adopts the Modified Jones Model developed by Dechow et al. (1995) measured using a discretionary accruals proxy. The study samples are manufacturing company listed on the Indonesia Stock Exchange for the period 2014-2017. The analysis technique uses Moderated Regression Analysis (MRA). The results of the analysis show that corporate social responsibility and company size have a significant positive effect on earnings management. Companies that report corporate social responsibility tend to do earnings management. Corporate governance weakens the relationship between corporate social responsibility and earnings management, which means that companies that are socially responsible, are willing to spend effort and resources to carry out corporate social responsibility activities and strive to meet the ethical expectations of shareholders to the community, which tends to limit practice earnings management so that it will provide more transparent and reliable financial information to investors. Corporate governance weakens the relationship between the size of the company and earnings management. The larger the company as measured by total assets tends to reduce earnings management actions. Based on positive accounting theory (Watts and Zimmerman, 1986), one of the causes of earnings management is the political cost motive.

Moderating Regression Analysis Result

Effect of Corporate Governance on the Relationship between Corporate Social Responsibility and Firm Size with Earnings Management

Model	Standardized Coefficients Beta	t	Sig.
CSR	0,447	2,326	0,021
CSR*CG	-0,392	-2,038	0,043
Size	2,961	12,200	0,000
Size*CG	-3,403	-14,019	0,000

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How Does Islamic Financial Technology Influence Debtors' Preference In Islamic Rural Bank's Bangun Drajat Yogyakarta

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Keywords: Financial Technology, Debtors Preference, Islamic Rural Bank, Linear Regression, Yogyakarta

The aim of this research is to analyse the influence of Islamic Financial Technology towards the change of

Debtors Preference on BangunDrajatWargaIslamic Ruralexplained by other variables outside the model. Fintech had Bank Bantul, Special Region of Yogyakarta. The influence the ability to match the lenders and borrowers directly of Islamic Financial Technology is measured by using using technology (Dermine, 2017) several variables, including Perceived FinancialJELClassification: G21, O14, O33 Technology, Service Feature, Perceived Ease of Use, and

Perceived Risk. This research took case study on BangunDrajatWargaIslamic Rural Bank Bantul, SpecialBased Region of Yogyakarta from September to October 2018.on table The type of data is primary data collected by using8, the questionnaire and interview. The primary data was processed using SPSS15 and analysed by using Multiple Linear Regression. The results show that Perceived Financial Technology, Service Feature and Perceived Ease of Use partially have significant and positive influence towards the change on Islamic Rural Bank Debtorssignificant values of Perceived Financial Technology, Preference. The variable Perceived Risk is the only variableService Feature, and Perceived Ease of Use are 0,007; that has insignificant and negative influence towards the0,008; and 0,003, respectively.

Variables	Sig.
Perceived Financial Technology	0,007
Service Feature	0,008
Perceived Ease of Use	0,003
Perceived Risk	0,574

change of Islamic Rural Bank Debtors Preference. Overall, the independent variables simultaneously share significantREFERENCES influence towards the change on Islamic Rural BankDermine, J. (2017). Digital Disruption and Bank Debtors Preference. The independent variables can explainLending.European Economy - Banks, Regulation, and the Real 63,3% of dependent variable, while other 36,7% isSector, 3(2), 63-76.

Household Willingness To Pay For Landslide Hazard Mitigation In Purworejo, Indonesia

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Keywords: landslide; contingent valuation method; disaster mitigation; willingness to pay

Landslide hazard causes severe consequences on people of the household WTP was estimated using the Logistic properties including damage on infrastructure, changing on regression model. For the respondents of this study, 270 land structure, relocation of buildings and roadways, households were chosen using a purposive sampling reduction on water quality in streams and irrigation technique. This study found that 76.7 percent of facilities, etc., Household mitigation for landslide hazard respondents were willing to pay for an average of IDR would be necessary to reduce this hazard intensity and 4,500 (USD 0.32) for landslide mitigation. Household minimize the impacts if it occurs. income, distance to the landslide location, the frequency of

This study analyzes household's willingness to pay (WTP) landslide, and educational attainment have significant for landslide hazard mitigation in a high potential risk foreffects on the WTP. This study recommends the local landslide hazard regency in Central Java Indonesia, namely government to pay more attention to the landslide hazard Purworejo. Contingent Valuation Method (CVM) was mitigation programs. Direct and indirect costs of landslides employed to capture the household's WTP. Determinants are "direct costs including damage to buildings, land, and

(or) rebuilding buildings, land and other repairs, so that they as nearly as to the same condition as prior to the landslide” (Leighton, 1976).

Table 2. Results of a logistic regression model.

Dependent variable: WTP for landslide mitigation

*significant at $\alpha=10\%$; **significant at $\alpha=5\%$; ***significant at $\alpha=1\%$

The study results indicated that 76.7% of the respondents (n=188) willing to pay for landslide mitigation as many as IDR4,500 while the 23.3% (n=82) did not (See Table 2).

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Variables	Odds ratio	Stand. error
Constant	0.493	0.632
Age	1.010	0.681
Sex	0.586	0.132
Education	1.730**	0.033
Income	1.000**	0.058
Ownership	2.479 *	0.096
Length stay	0.996	0.791
Distance	0.579***	0.007
Frequency	0.421**	0.466
Community participation	2.320 **	0.019
Nagelkerke R ²	0.237	
Wald	39.667	0.000

Measuring the Impact of Technology on Service Trade Using ICT Development Index

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Keywords: Information and Communication Technology (ICT); Service trade; Gravity Model, Disruptive innovation

The world is now entering the era of industrial revolution 4.0, which emphasizes the pattern of digital economy, artificial intelligence, big data and robots or commonly known as the phenomenon of innovation chaos. With the rapid development of electronics, Information and Communication Technology (ICT), better known as ICT-based electronic advances, this has an impact on international and domestic trade. There is progress in ICT, in this case making distance less influential in trade. This is because there is no need for meetings or face-to-face meetings because they have been replaced by electronic mail or cellphones. In this study, we want to examine the impact of ICT on international trade, especially the total service trade between the ten highest service sector exporters to Indonesia. This study uses a panel data with gravity model framework for the period of 2012-2016. The results show that, ICT has a positive and significant impact on export of ten countries services to Indonesia. Other variables such as the GDP of the exporting country have a positive effect on trade service, while export destination countries have negative effect on trade services. In addition, distance, has negative and significant effect on service trade. This is in line with the gravity model theory, whether distance has negative relationship on trade. In this case, distance represents transportation cost. Country characteristic such as openness of exporters has a positive and significant effect on service trade. In contrast, openness of destination country has negative and significant effect on service exports to Indonesia. The use of technology also encourages rapid business growth, because various information can be presented through long-distance relationships and no need for face-to-face meetings when traders want to make a transaction, since it has been replaced by telephone, e-mail and etc. (Dettmer, 2014).

a Trade Barrier in a Connected World?" International Economic Journal, Vol. 28, No. 2, pp. 225-254

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Changing Specialization and Trade Performance of Indonesia and Malaysia toward the OIC Countries

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Keywords: Trade Performance; Panel Data; RSCA Index; OIC

Along with its development, OIC was able to contribute to the economy, especially in the flow of international trade. Indonesia and Malaysia are the main actors in increasing exports in the OIC countries but Indonesia's exports in 2014-2015 in intra-OIC trade fell by 6.8%, while Malaysian exports in intra-OIC trade fell by 16.8%. This study aims to analyze the changing of specialization and competitiveness of Indonesian and Malaysian primary commodities to the OIC countries and to determine the influence of variables such as distance, GDP's origin country, GDP's destination country, exchange rates, openness, populations and control of corruption's destination country of Indonesian and Malaysian export performance to the OIC. Using balanced panel data for 10 years, from 2008 to 2017. Analyzing the data using gravity model framework, results show that, there is significance in both countries. By using random effect estimation the regression results show that GDP and openness have a positive and significant in both countries, the exchange rate and distance have a negative and significant in both countries. In addition, with the RSCA index, result shows that, there has been a changing pattern of primary commodities competitiveness within a span of 10 years in Indonesia and Malaysia. The writer using RSCA Index for

measuring comparative advantage. The RSCA index (Laursen, 1998) is used to measure comparative advantage.

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Table 4. Chow Test (Indonesia)

Effect Test	Prob
F(32, 291)	137,15
Prob > F	0,000

Based on the table above, the

probability value of the F-statistic under α 5% is equal to 0,000 or less than 0.05. Then it can be concluded that H_0 is rejected and accepts H_1 , which means the regression results of the Fixed Effect Model are better to use.

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The Role Of Information And Communication Technology On Service Trade: Case Study Of Asean Countries

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Keywords: Information and Communications Technology (ICT); Service trade; Gravity model

This study aims to analyze the impact of Information and Communication Technology (ICT) on bilateral trade between Indonesia and its ASEAN trading partners. The sample is bilateral export on technology intensive products between Indonesia and 10 ASEAN countries such as Malaysia, Philippines, Singapore, Thailand, Brunei Darussalam, Vietnam, Myanmar, Laos and Cambodia. The total service trade is based on UN-Comtrade data, it consists of commodities are coded in Standard International Trade Classification (SITC). This study uses the gravity model framework of data panel from 2008 to 2017 with random effect model is analyzed using Generalized Least Square. Based on the regression analysis, results show that ICT Development Index (IDI) which represents technology development has a positive and significant impact on Indonesia's service export to ASEAN countries. Other variables such as GDP, distance and common language also have significant effect on Indonesia's service export. GDP reporter and GDP partners have positive and significant effect on Indonesia's service export. Furthermore, distance has a negative and significant effect on Indonesia's service export. These results are in line with Gravity model theory. In addition, these results are expected to be strong enough for the specifications of alternative models and estimation methods. Based on these results, some expected trade policy implications can be formulated. Technology plays an important role in international trade and commerce since international trade is one of the sources of growth. Salvatore (2004) said that international trade is as one of the engines of growth.

Based on the table above, the probability value of F-statistics is below 5%, which is equal to 0,000 or less than 0.05. Then it can be concluded that H_0 is rejected and accepts H_1 , which means the regression results of

Effect Test	Prob
F(4, 77)	4.39
Prob > F	0.0030

the Fixed Effect Model are better to use.

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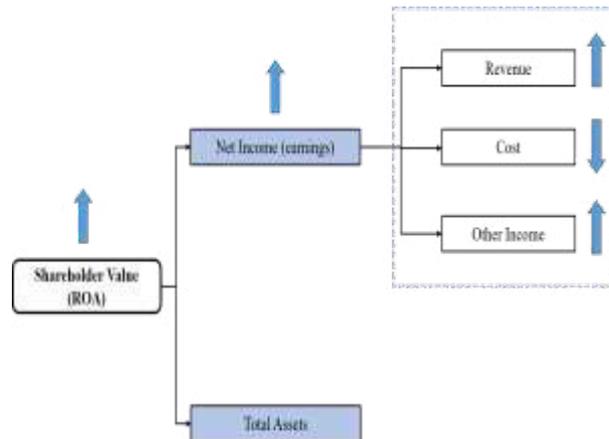
Table 1. Chow Test

The Determind Of Stock Return Lq45

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Keywords: financial performance, macroeconomic conditions, stock returns, LQ45



The LQ45 category is one of the indexes that investors are interested in because it has high liquidity and large market capitalization. However, based on the LQ45 index in the past five years (2013-2017), in 2015 the LQ45 index significantly decreased. It indicates the LQ45 index does not always provide positive returns for the investors. The purpose of this study is to examine the effect of financial performance and macroeconomic conditions on the company's stock returns recorded in the LQ45 index. This study uses 38 samples listed in the LQ45 index for the period 2013-2017, selected using the purposive sampling method. Multiple linear regression is used to determine the relationship between financial performance components:

Return on Assets (ROA), Current Ratio (CR), Debt to Assets Ratio (DAR), and macroeconomic conditions: BI Rate, Inflation, Gross Domestic Product Growth (GDP Growth), with stock returns. The result of this study indicates that ROA and GDP Growth have a positive and significant effect on stock returns. CR, BI rate, and inflation have a negative and significant effect on stock returns. DAR has a negative effect on stock returns, but statistically, the effect is not significant. And simultaneously, ROA, CR, DAR, BI Rate, Inflation, and GDP Growth have a negative and significant impact on LQ45 company stock returns. This result support research conducted by Hamid Reza Vakilifard & Nassim Shahmoradi (2014),

Figure 10. Managerial Implementation
Source: writer's analysis

Based on the analysis that has been done in this research, financial performance and macroeconomic conditions are affecting the stock return. Investors must be sensitive to all risk factors that can affect the rate of stock returns, not only from the LQ45 company's fundamentals (company performance) but also from macroeconomic conditions that need to be considered.

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Hamid R.V, Nassim S. 2014. Investigating the Effects of Stable Profitability and Free Cash Flow on Stock Returns of Companies Listed in Tehran Stock Exchange. International Journal of Academic Research in Accounting, Finance and Management Sciences. 4(3):21-27 (Hamid and Nassim 2014)

Why People Intent to Invest Using Islamic Fintech?

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Keywords: Islamic Fintech, Perceived Benefit, Perceived Risk, Perceived *Maqoshid*

Financial Technology (Fintech) has been interesting topic for recent years, which is driven by sophisticated digital technology in what so-called Industrial Revolution 4.0 era. Indifferent with non-digital financial institution (NDFI), Fintech could be categorized into conventional and Islamic (sharia compliance). Islamic Fintech has become the evidence that Islam and technology could be integrated and stand together. This paper aims at measuring the effect of perceived benefit, perceived risk, and perceived *Maqoshid* sharia on the intention to invest in Islamic Fintech, on a basis of 542 samples from NDFI workers. A conceptual model was adopted from Theory of Planned Behavior and tested using Structural Equation Modeling Maximum Likelihood Estimation. The empirical result shows that there is significant positive impact of perceived benefit 2.67 and perceived *Maqoshid* sharia 8.53, and a significant negative impact of perceived risk -1.68 toward the investment intention. We summarize that the perceived risk is strong predictor of intention. On the other hand, Islamic Fintech shall pay more attention on perceived *Maqoshid* sharia especially on justice and social responsibility. Resemble with its traditional peer, Fintech offers vary financial products such as loan, investment, insurance, donation, etc, (Lee & Shin, 2018) and also be categorized into conventional and Islamic (sharia compliance) based on its operational processes.

		RIS2	0.75
		RIS3	0.73
		RIS4	0.52
Perceived Sharia	Maqoshid	SYR1	0.59
		SYR2	0.67
		SYR3	0.74
		SYR4	0.81

We apply 0.6 score of threshold Loading Factor. There are three indicators with Loading Factor score < 0.6, those are BEN4 (.48), RIS4 (.52), and SYR1 (.59).

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Lee, I., & Shin, Y. J. (2018). Fintech: Ecosystem, business models, investment decisions, and challenges. *Business Horizons*, 61(1), 35–46. <https://doi.org/10.1016/j.bushor.2017.09.003>

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Table 6 Standardized Factor Loading

Variable	Indicator	SFL
Perceived Benefit	BEN1	0.84
	BEN2	0.87
	BEN3	0.76
	BEN4	0.48
Perceived Risk	RIS1	0.66

Financial Inclusion through Zakat Empowerment Program: in Indonesia and Brunei Darussalam

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²Universitas Islam Negeri Sunan Ampel

Keywords: Financial Inclusion; Zakat Empowerment Program; *Mustahiq*; BAZNAS; BAKAZ

This research aims to reveal the financial inclusion occurs in zakat institutions within zakat empowerment program in Indonesia and Brunei Darussalam. This study will show a comparison of financial inclusion processes practiced by zakat institutions in two countries and then analyze how they can improve zakat management in both institutions. The object of this research are the government zakat institution in two countries, namely Indonesia (BAZNAS) and Brunei Darussalam (BAKAZ). This study uses a qualitative explanatory method within multiple case strategy. Data collection in this study was carried out through in-depth interviews with several expert informants of BAZNAS and BAKAZ and also *mustahiq* of each institution. This study shows how the financial inclusion process is carried out through the synergy of zakat institution with financial institutions in each country, so as to produce a sustainable impact to the *mustahiq* life through the implementation of zakat financial inclusion. According to Muhammad (2011: 2) in its historical development, zakat can even transform the social status of the people from *mustahiq* (people who are entitled to zakat) to be *muzakki* with the economic empowerment of the people.

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	Zakat Community Development (production)	Otoritas Jasa Keuangan;
Brunei (BAKAZ)	Direct distribution for consumption and production: bank transfer	Islamic banks

Source: Research result (2019)

Based on the results of in depth interviews with expert informants at BAZNAS and BAKAZ, it was found that there were attempts at financial inclusion in zakat distribution by government zakat institution.

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Figure 4.2 Financial Inclusion through BAZNAS and BAKAZ

Zakat institution	Financial inclusion in zakat distribution	Financial institution partner
Indonesia (BAZNAS)	Zakat consumption distribution	Islamic banks

The Impact Of The Imposition Of Zakat Profession Against Behavioral Academics

Zaini Muchlis¹ and Ecky Imamul Muttaqin¹

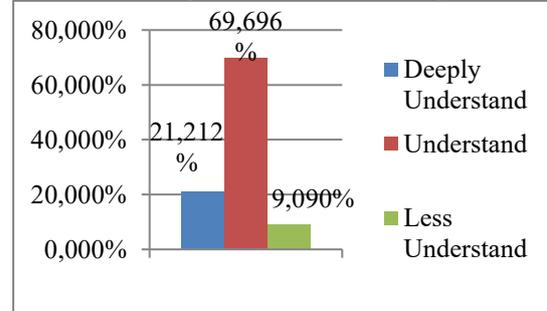
¹Muhammadiyah University of Yogyakarta

Keywords: Professional Zakat, Academic Community, UMY

This study aims to determine the knowledge and understanding towards academics staff about zakat and to know the impact of professional zakat on the behavioral lecturers of Muhammadiyah University of Yogyakarta. The objects of this study were lecturers at the economics and business faculties. This research was designed using qualitative descriptions while the variables studied were the impact of the mandatory zakat on the academic community in UMY. The data collection of this study through questionnaires, interviews and documentation. The research instrument is a list of questions that reveal the variables and rubric of self-reflection. The data validity uses content validity and data triangulation, while the technical data analysis is quantitative through percentage analysis. The results found were that the obligations of professional zakat bring positive and negative effects on the lecturers of Muhammadiyah University of Yogyakarta, especially in the Faculty of Economics and Business. However, the negative impact obtained is greater than the positive impact. The first is the

wealth should achieve nishob (minimum required of wealth that is obligated to pay zakat) i.e. equivalent to 85 kilograms of gold. The second is the wealth should achieve haul (deadline for paying the zakat) that limit is within one year (Sayyid, 1999). Third, the person is free from the debt. If these requirements are not achieved, then a Muslim is not obliged to pay the zakat.

Table 1. The Proportion of Understanding about Zakat



Source: Researcher, examined

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The Potential for Developing Organic Rice in Bantul District, Special Region of Yogyakarta

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¹Universitas Muhammadiyah Yogyakarta

Keywords: developed, financial feasibility, organic rice, technical efficiency

Rising awareness toward the effects of chemical substance on public health and environment has led to the initiation and the development of organic farming system. This research aimed at analyzing the financial feasibility and technical efficiency of the development of organic rice farming. The research was conducted in Imogiri Sub-district, Bantul District, which was purposively selected. The research utilized survey with 50 respondents which was selected using the method of simple random sampling. The analysis technique applied was descriptive and quantitative, using Cobb Douglass stochastic frontier production function. The result of the research visualizes that organic rice possesses higher level of income and profit than non-organic rice does. Financial wise, organic rice is feasible for further development with R/C value reaching 1.81 (>1). Furthermore, technically, organic rice shows promising efficiency with efficiency index reaching > 0.7. In conclusion, the development of organic rice in Bantul District shall be continued since it provide not only financial benefit but also environmental benefit. In addition, the use of chemical input also lead to chemical pollution on agricultural products which may have negative effects on human health (Lestari, 2009).

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Table 6. Factors contributing to organic and non-organic rice technical inefficiency

Variable	Organic rice		Non organic rice	
	Coefficient	T-value	Coefficient	T-value
Constant	-0.355 ^{ns}	-0.3	-2.018 ^{***}	-3.5
Age	0.009 ^{ns}	0.8	-0.023 ^{***}	-2.5
Experience	-0.025 ^{ns}	-0.7	-0.017 ^{**}	-1.8
Education	0.131 ^{ns}	0.7	-0.092 ^{ns}	-

n	47	1.0	20
Land status	-0.243 ^{ns}	-	0.421 ^{***}
	1.0	42	2.1
			25

Description: ns = non-significant

*** = significant at $\alpha = 1\%$

** = significant at $\alpha = 5\%$

In non-organic rice farming, the age of farmers influences technical inefficiencies with a coefficient value of -0,023 which can be interpreted as the age of the farmer, the lower the level of inefficiency, in other words, non-organic rice farming is more efficient.

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Analysis to develop the quality of existing customer measurement to create customer retention using the six pillars of customer experience: Study in PT. Anandha Syariah

Adry Anandha Abdi¹

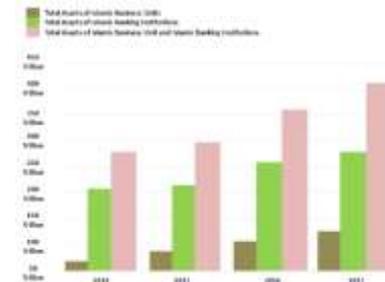
¹ SBM ITB, Indonesia, adry.anandha@gmail.com

Keywords: Sharia, Financing Guarantee, Six Pillars, Customer Experience, Customer Retention developed, financial feasibility, organic rice, technical efficiency

PT. Anandha Syariah is committed to always support the nation development through the guarantee of Sharia based financing guarantee and Sharia business solution. As a country with the largest Muslim population in the world, Indonesia has great potential for market growth and the Islamic economic sector can be an important factor in advancing it. Based on those facts we can see Anandha Syariah have the challenges to keep their loyal customer before they want to increase their total number of B2B (business to business) customer. Anandha Syariah wants to improve the existing customer experience survey and propose an appropriate concept to create marketing strategy to enhance customer retention in the future plan. This research is tended to explanatory research that emphasizes the phenomenon. Data will be collect within quantitative method. The questionnaire will be guide by relationship marketing, customer value, customer satisfaction and customer retention theory that emphasizes the result analysis using the six pillars of customer experience. The target of correspondents are B2B customers that specifically on total of 14 customers. Questionnaires were made to see the level of customer experience level number after used Anandha Syariah products and services. With such intense competition, Anandha Syariah must be able to improve the quality of their services to consumers and that can be measured by the level of customer experience. Customer experience is internal and the

customer's subjective response either directly or indirectly with the company (Meyer and Schwager, 2007).

Figure 1.1 Total assets of Islamic Business Units and Islamic Banking Institutions



Source: National Islamic Finance Committee (KNKS) – Data from OJK (2017)

Based on those data, Anandha Syariah Financing Guarantee Inc as one of sharia financing guarantee companies must be able to take an important role in the growth of Islamic Business Units and Islamic Banking Institutions so that they can continue to strive to be the market leader among other competitors.

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Muslim Millennial's Intention to Donate through Fintech

Farokhah Muzayinatun N¹ Lu'liyatul Mutmainah¹ and Diah Ayu Legowati¹

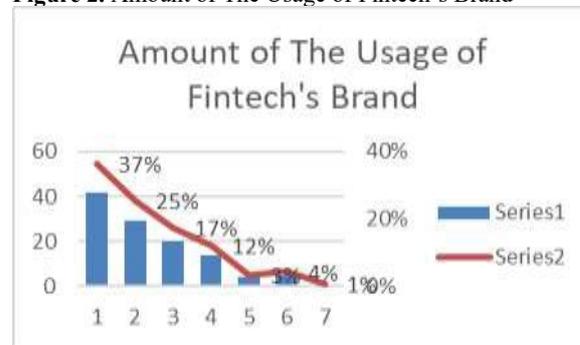
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Keywords: Fintech, Donation, Millenials, Intention

Financial Technology (fintech) has been a part of human life. Fintech becomes a solution of human needs without limits of space and time. Fintech makes it easy for people especially millenials to make donation. This study aims to explore the factors that influence Muslim millenials intention in giving donation through fintech. This study uses an integration model of Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB). Online survey is used in this research including 115 Muslim millenials as sample. Data analyzed by Structural Equation Model (SEM) using Smart PLS. The results indicate that Perceived Usefulness (PU) and Perceived Ease of Use (PEoU) have no significant effect on Attitude Towards Usage (ATU), Attitude Towards Usage (ATU) has no significant effect on Behavioral Intention (BI), Perceived Usefulness (PU), Subjective Norm (SN) and Perceived Behavioral Control (PBC) significantly have a positive effect on Behavioral Intention (BI). Overall fintech improves Muslim millenials' intention to make donation easily and almost all of respondents know about fintech, even not all of the use fintech to donate. This research contributes both theoretically and practically.

Financial Technology or fintech is one of the economic sectors with the largest growth. Investment in this industry increased rapidly to reach 12.2 billion dollars in 2014, while in 2008 it only reached 930 million dollars (Saksonova and Merlino, 2017: 963).

Figure 2. Amount of The Usage of Fintech's Brand



Based on the data above, 37% (43 people) use one fintech brand, while 25% (29 people) use two fintech brands and one person uses seven fintech brands.

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Saksonova, S & Merlino, I.K. (2017). Fintech as Financial Innovation-The Possibilities and Problems of Implementation. *European Research Studies Journal*. Vol. XX (3A): 961-973

Vertical Market Integration of Curly Red Chili in Kulonprogo Regency Yogyakarta Indonesia

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Keywords: Curly red chili, vertical market integration, IMC

This study aims to determine the price behavior at the producer market in *Kulonprogo* Regency and the consumer market in *Kramat Jati* Central Market (PIKJ), and the vertical integration between the two markets. The data are secondary data in the form of monthly prices of curly red chili in the producer market in *Kulonprogo* and consumer markets in PIKJ in 2010-2015. Description analysis technique is implemented to describe the behavior of curly red chili prices in the producer market in *Kulonprogo* Regency and the consumer market in PIKJ. Meanwhile, the vertical integration between the producer markets in *Kulonprogo* Regency and the consumer market in PIKJ

is analyzed using IMC (Index Marketing Connection). The results show that the behavior of curly red chili prices in the producer market in *Kulonprogo* Regency and the consumer market in PIKJ have the same pattern of movement. The IMC value shows that the degree of integration of the curly red chili market between the producer markets in *Kulonprogo* Regency and the consumer market in PIKJ is relatively strong, both in the short and long term. A good market outlook for red chilli can be seen from the increase in prices and the demand for red chili every year. It makes farmers interested in cultivating red chili. Red chili is also chosen because it has a fairly good marketing area and

can be planted in various environments such as coastal areas, middle plains, and highlands (Rukmana, 2002).

Table 1. The development of red chili production in DIY in 2011-2015 (quintal)

Regency	Year				
	2011	2012	2013	2014	2015
Kulonpr	107.2	115.	109.	125.	168.
ogo	26	816	208	075	280
Sleman	27.85	28.5	41.9	36.1	44.3
	5	99	38	57	07
Bantul	5.251	16.7	17.6	12.2	19.6

		02	51	44	93
Gunung	3.369	3.45	2.53	2.12	1.59
kidul		3	8	4	9

Source: BPS DIY, 2016.

One type of red chili that is widely cultivated by farmers in *Kulonprogo* Regency is curly red chili. Curly red chili is a type of chili with high demand so that it becomes the farmers' favorite to cultivate.

REFERENCES

Rukmana, Rahmat, & Yuyun. (2002). *Bertanam Cabai dalam Pot.* Yogyakarta: Kanisius.

Interpretive Structural Modeling (ISM) for Green Logistics Implementation in Potato Agro-Industry in Central Java

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Keywords: ISM, green logistics, potato agro-industry, central java.

Indonesia is the largest potato producer in Southeast Asia with an average growth rate of 8.4% per year and an average annual production of 1.09 million tons. Potatoes are one of the most important plants that contribute to national economic development and improve the welfare of horticultural farmers. However, there was no increase in potato production, which ranged between 955,488-1,094,232 tons / year. Likewise, productivity is still relatively low, ranging from 16.4 - 18.22 tons / ha. In addition, price fluctuations occur so that farmers only receive and cannot determine prices, lack of coordination between institutions involved in the supply chain and management of institutional groups that are still weak. This paper uses the Interpretive Structural Modeling (ISM) method for Green Logistics Implementation in Potato Agro-Industry in Central Java. The results of the study are to provide scientific advice on how to choose the main factors for modeling the location of a green logistics distribution center by considering price fluctuations, mapping the relationship between location factors in the hierarchy graph, building ISM Green Logistics and explaining ISM to contribute to

the development of Green Logistics in Potato Agro - Industry in Central Java. This is structural because it simplifies complex relationship structures into simpler modules. The ISM approach can be implemented not limited to certain fields. This has been widely used by many researchers in various fields of research(Gupta et al. 2017)

Table 1.Key factors of GLDC

No	Key Factor	No	Key Factor
S ₁	Availability of raw materials	S ₇	Traffic transportation
S ₂	Characteristic of potato	S ₈	Economic Factor
S ₃	Supplier of potato	S ₉	Environmental Issue
S ₄	Topography	S ₁₀	Organizational factor

S ₅	Market place	S ₁₁	Technological Factor
S ₆	Logistic infrastructure	S ₁₂	Human force factor

Source: Ajalli et al. (2016); Huang et al. (2012); Dube & Gawande (2016)

Based on a lot of literature related with the research, the research group draws a total of 12 key factors (seen in

Creative Industry's Startup: How Can Investors Indicate Important Factors To Fund It?

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Keywords: Creative Industry's; Startup

Creative-economy has become center attention of the Indonesian government, by establishing The Indonesian Agency for Creative Economy in 2015. However, funding or economic is still considered as the main obstacle for the creative-industries startups, as the driver for creative-economy, in developing their business. The difficulties faced by the creative industries actors to get funding from banks or financial institutions, because the majority of the actors hold intangible assets. This study focuses on creative industries sub-sector which dominantly holds intangible assets, namely application, and game developer sub-sectors. Moreover, the objective of this study is to examine the parameters of loans, credit and funding in organizational and institutional. These contain indicators that will be analyzed whether these might influence the funding to the actors. The study was conducted by interviewing the investors who were speakers and pitching judges at the Go-Startup Indonesia event on October 26, 2018 in Bandung. Explorative research is carried out by using deductive approach. Triangulation is used for checking the validity of data. The result of the analysis shows there are 13 indicators that influence investors in determining their investment. By optimizing these indicators, it is expected that creative-industries startups become easier in obtaining funding for their business sustainability. Cunningham et al (2008:81) state that the funding model for the creative industries would have different parameters in each country depending on where the funding was provided and the bank requirements of each country.

Table 1), which can largely determine the success of modeling GLDC. According to requirements of ISM, let elements of the collection is S , and $S = \{S_1, S_2, \dots, S_{12}\}$.

REFERENCES

Gupta A, Singh RK, Suri P. 2017. Modeling the barriers of Indian logistics service providers : ISM approach. 9(1):p.3-4.

Table 2. Result

Variable	Indicator	Effective	
		Yes	No
Loan/Credit/ Funding	Business Stage	✓	
	Investment Period	✓	
	Financing Model	✓	
Organizational & Institutional	Positive Expectation	✓	
	Network	✓	
	Market Feasible Idea	✓	
	Concept Innovation	✓	
	Endorsement	✓	
	Time to IPO		✓
	Sustainability	✓	
	Transnational	✓	
	Value Added	✓	
	Intellectual Property Right	✓	
	Portofolio Company's Profile	✓	

The results of the study show that an investor must know all the potential that might occur such as risk and

minimize the risk as much as possible.

REFERENCES

Herding Behavior in Indonesia Islamic Stock Market

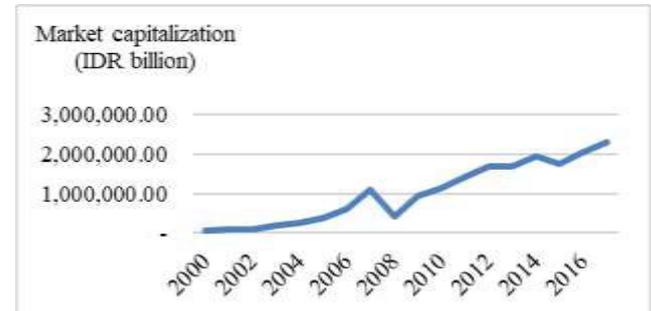
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¹*School of Economic and Business, Telkom University, Indonesia.*

Keywords: herding behavior; CSAD; GARCH model.

Indonesia Stock Exchange contains Islamic stocks for Muslim investors who want to invest. The first Islamic stock index in Indonesia is Jakarta Islamic Index or JII. It consists of thirty of the most liquid Islamic stocks. The market capitalization of the JII tends to increase every year. This paper investigate the existence of herding behavior in emerging market specifically Islamic stock market of Indonesia using daily return of Indonesia Composite Index and JII from 10 October 2000 to 5 October 2018. Herding behavior can trigger shifting market prices from equilibrium values. Herding behavior can be identified from relation between dispersion of stock return and market return. Dispersion of stock return is measured using Cross Sectional Absolute Deviation or CSAD. Generalized Auto Regressive Conditional Heteroskedasticity or GARCH model is used to detect the existence of herding behavior. GARCH does not see heteroskedasticity as a problem, instead uses it to make a model. The result indicates that herding behavior exist in Islamic stock market of Indonesia. This result is similar to Chaffai and Medhioub(2018) who find evidence of herding behavior in the Islamic GCC stock markets but have different result in asymmetric herding condition. Baker and Nofsinger (2010) state that investors must be rational, or if investors are not rational, their bias must be not related, so the market will be efficient. Even though the information is perfect, many studies conclude that investors tend to make irrational decision.

Cunningham, Stuart D., Ryan, Mark D., Keane, Michael A., dan Ordonez, Diego. (2008). *Financing Creative Industries in Barrowclough, Diana., Kozul-Wright, Zeljka. Creative Industries and Developing Countries.* London: Routledge



Source: Authors

Investors must be expecting profit or return from their investment. According to efficient market theory, prices are fully reflect available information. So that investors are well informed and make investment decisions according to their technical and fundamental analysis.

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Baker, H. K. dan Nofsinger, J. R. (2007). *Behavioral Finance : Investors, Corporations, and Markets.* Hoboken, New Jersey: John Wiley & Sons, Inc.

Figure I. Market Capitalization of Jakarta Islamic Index

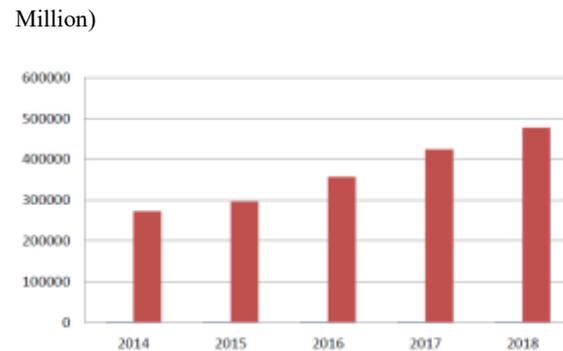
Relationship Between Macroeconomics Variables with SME Financing on Islamic Banking in Indonesia

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¹Nusa Putra University, Indonesia.

Keywords: Islamic Banking, Small and Medium Enterprises, Macroeconomic, VAR Analysis

The aim of this paper is examine the Relationship between Macroeconomic Variables with SME Financing in Indonesia, among others Effect of the BI Rate variable on the Growth of SME Islamic Financing, Effect of variable Exchange Rate on Growth of SME Islamic Financing, Influence of the GDP variable on the Growth of SME Islamic Financing. This Research adopts Quantitative approach. The data used in this study is secondary data which is a Time Series Data. The data were collected from Quarterly reporting Financial Service Authority. Relationship between macro variables and the growth of SME Islamic Financing, making macro variables as one indicator that can be used to determine the growth movement of Islamic Banking Financing, the Macro variable includes the BI Rate, Exchange Rate, and GDP. This research expected the development of Islamic economics in Indonesia, especially in the field of Islamic banking sector, by providing additional information to the public about the superiority of the Islamic economic system. This research has important implication for Islamic Banking Sector by informing the influence of Macroeconomic Variable on the Growth of SME Islamic Financing. Cointegration describes linear combinations of non-stationary variables. If the non-stationer variables are cointegrated, then the linear combination between variables in the system will be stationary, so that a stable equation can be obtained (Enders, 1995).



The growth of Islamic Banking Financing, based on statistics from the Bank Indonesia Islamic Banking Bureau, can be seen that the growth of Islamic banking financing has increased considerably, we can see that on Dec 2014 the outstanding Islamic Banking Financing was Rp 199.33 trillion, while for Dec 2018 it was 320,193 trillion.

REFERENCES

Enders, W. (1995). *Applied Econometrics Time Series*. Canada: John Wiley and Sons, inc.

Figure 1. Growth of Indonesian Islamic Banking Assets (Rp.

The Impact of Islamic Economics and Finance Courses on Islamic Financial Literacy of University Students

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¹Faculty of Economics Universitas Andalas

Keywords: Islamic Economics; Islam Finance, Islamic Financial Literacy

In conjunction with the development of Islamic finance industry, Islamic economics and finance courses have been introduced since the last two decades in Indonesia. To train the talents for Islamic finance industry, a number of institutions have offered courses and training sessions in the early phase of Islamic finance development. We assigned a number of criteria to choose the sample namely, faculty of economics and business students in public university with the length of study period at least three semesters. From the total distributed questionnaire, 300 of them were completed and included in the sample. Therefore the respond rate is 71.3%. 145 respondents are in the category of low Islamic financial knowledge, while 155 are in the category of sufficient. From 145 respondents with low Islamic financial knowledge 79 (66) have (not) taken (any) Islamic economics and finance courses. From 155 respondents with sufficient financial knowledge 114 (41) have (not) taken (any) Islamic economics and finance courses. Using Pearson Chi-Square (cross-tabs), the p value is less than 0.05. Therefore, we do not have enough evidence to accept the null hypothesis that there is no difference between the two groups regarding their proficiency in Islamic financial knowledge. In view of this, it can be inferred that Islamic economics and finance courses have significant impact upon Islamic financial knowledge of public university students in Padang. Meltzer et al., (2011) suggests that there is a strong association between failure in repaying debts and intention to suicide. Nevertheless, having sufficient personal financial skill can help someone to earn happiness in life.

Table 1.1 Financial Literacy Index (Based on Profession)

No	Sector	Conventional (%)	Islamic (%)
1	Entrepreneur	27.6	6.7
2	Employee/Professional	39.8	12.4
3	Students	23.2	5.3
4	Housewife	15.2	3.0
5	Retiree	35.3	9.3
6	Unemployed and others	22.8	3.7

Source: National Survey on Financial Literacy and Inclusion 2016, OJK

There has been an increasing trend of the Islamic finance industry in Indonesia since the last two decades. Despite experiencing positive improvement in terms of a number of institutions, assets, revenues, and customers, Indonesian Islamic finance industry so far has not reached its optimum level.

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The Data Panel Analysis Of Economic Development In Indonesia

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¹Universitas Muhammadiyah Yogyakarta

Keywords: Regional Economy, Fixed Effect, Economic Wealth, Multiplier effect

The research explains the regional economy in Indonesia that is the analysis of regional economy in Indonesia by including total population, infrastructure, PDRB, regional investment, and level of inflation variables. The estimation method in the research was by conducting panel data estimation. The data were collected from credible sources namely Bank Indonesia (BI) and Badan Pusat Statistik (BPS – Central Bureau of Statistics) year 2010 through 2016. The data were analyzed using STATA package program in order to obtain the estimation result of economy analysis model parameter of regional economy in Indonesia that matches the statistical and economic theory criteria. The variables included in the research were Pendapatan Domestik Regional Bruto (PDRB – Gross Regional Domestic Income), Panjang Jalan (PJLN – Road Length), Rupiah Rate toward US Dollar, Indeks Pembangunan Manusia (IPM – Human Development Index), Belanja Daerah (BD – Regional Expenditure), Penanaman Modal Dalam Negeri (PMDN – Domestic Investment), Penanaman Modal Asing (PMA – Foreign Investment), Jumlah Penduduk (JP – Total Population) dan Indeks Pembangunan Manusia (IPM). After a series of econometric tests namely heterocedasticity, multi colinearity, Chow and Hausman, the estimation of empirical findings of PMA, PMDN, BD, Currency Rate, IPM and PJLN have significant and positive effects toward PDRB. Meanwhile, JP variable does not have any effects toward PDRB. The regional economic development indicated by PDRB is determined by economic activity and potential of a region that covers Natural and Human Resources and supported by the availability of infrastructure and regulation aspects (Zhang, 2016).

Table 1. **Indonesian Macroeconomic Indicators**

In the local scope, it is necessary to handle special,

Economic Indicators	Year				
	2014	2015	2016	2017	2018
Gross Domestic Product(%)	5	4,8	5	5,1	5,3
Inflation(% per year)	8,4	3,4	3	3,5	3,5
Government Debt(% from PDB)	24,7	27,4	28,3	-	-
Currency Rate(IDR/ USD)	11.800	13.389	13.309	13.400	-
Current Account(% PDB)	-3,1	-2,1	-1,8	-1,6	-1,8
Total Population(in million)	254	258	261	264	267
Poverty(% population)	11	11,1	10,9	-	-
Foreign Exchange Reserves (billion USD)	111,9	105,9	116,4	-	-
Unemployment(% of workforce)	5,9	6,2	5,6	-	-

sectorial, and regional economic gaps in a structured and comprehensive integrated way.

REFERENCES

Zhang, W.-B. (2016.). Spatial agglomeration in a monetary multi-regional growth model with urban residential distribution, 28. *International Journal of Economic Developme*

Halal Food Awareness on Purchase Decision for Moslem Consumers in Indonesia and Thailand

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Keywords: Halal Food Awareness, Religiosity, Purchase Decision

This study aims to examine and explain the effect of halal foods awareness on purchase decision with religiosity as a moderating variable. The sample in this study is Muslims consumers in Indonesia and Thailand. Purposive sampling technique was applied by criteria of samples required is Muslim consumers in Indonesia and Thailand. The number of samples is 200 respondents, included 150 Indonesian

respondents and 50 Thai respondents. The analysis is done using Moderated Regression Analysis (MRA) with SPSS 23.0 software. The finding of this study shows that respondent has a high-level awareness of halal foods in Indonesia and Thailand. Halal foods awareness has a positive and significant impact on purchase decision for Muslims living in Indonesia. Halal foods awareness has a positive and significant

impact on purchase decision for Muslims living in Thailand. Finally, the higher level of religiosity cannot strengthen the effect of awareness on purchase decision. Muslim stendto consider halal food product when choosing food or restaurant. Globally, the halal food industries estimated growth rate is 7% annually (Aziz & Chock, 2013).

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Table 1. Demographic Background of Indonesian Respondents who Lived in Indonesia and Thailand, Classified by Gender

Source: developed by author

The Appraisal of Understanding Level to the Cash Waqf Among Members of Muhammadiyah Yogyakarta

The age difference of the majority of respondents in Indonesia and Thailand is indicated because Indonesian respondents are respondents who are still studying at undergraduate level, so Indonesian respondents are mostly aged between 17 to 23years.

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Aziz, Y. A. & Chock, N. V., 2013. The role of halal awareness, halal certification, and marketing components in determining halal purchase intention among non-Muslims in Malaysia: a structural equation modeling approach. *Journal of International Food & Agribusiness Marketing*, Vol. 25, No. 1, pp. 1-23.

Gender	Indonesia		Thailand	
	Frequen cy	Percenta ge(%)	Frequen cy	Percentage(%)
Male	60	40	22	44
Female	90	60	28	56
Total	150	100	50	100

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Keywords:Cash waqf, involvement in socio-religious organizations, mass media access and financial technology, religious compliance, institutional access

In the disruptive era, cash-waqf has greater potential for humanitarian and economic development impacts. Therefore, this study aims to find the initiative of involvement of Muhammadiyah members in cash-waqf by analyzing their level of understanding of it. The primary data were taken based on the answers of registered members from many different backdrops of Muhammadiyah Charity Business in Yogyakarta. The method used in this study is a quantitative descriptive using the Multiple Linear Regression technique. The result showed that the involvement of Muhammadiyah members in the socio-religious organizations, their access to the mass-media and financial technology, their compliance to the religion, and their access to the Islamic institution are significantly influence the cash-waqf understanding. It means that the knowledge regarding cash-waqf has been sufficiently understood. Hence, Muhammadiyah communities are ready to participate in the implementation of cash-waqf in Yogyakarta. This paper also attempts to analyze the need of various cash-waqf literacies in innovating the

waqf development for sustaining the benefits in the long-run. Waqf (Islamic endowment) has become a

N o	Muslim Numbe r	Monthly Income	Monthly Waqf	Monthly Cash Waqf	Monthly Cash Waqf
1	4 Million	Rp. 500.000	Rp. 5000	Rp. 20 M	Rp. 240 M
2	3 Million	Rp. 1-2 million	Rp. 10.000	Rp. 30 M	Rp. 360 M
3	2 Million	Rp. 2-5 million	Rp. 50.000	Rp.100 M	Rp. 1,2 T
4	1 Million	≥ Rp. 5 million	Rp. 100.000	Rp. 100 M	Rp. 1,2 T
Total					Rp. 3 T

very sustaining poverty alleviation tool, compared to other Islamic devices such as zakat, infaq, and shadaqa

(Ekawaty; Muda, 2015: 1).

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Table 1 *A Prediction of Potential Cash Waqf*
Source: Nasution (2006)

The rapid development of cash *waqfin* Indonesia has reached great lengths in these recent years. Currently, in order to alleviate the poverty, Islamic banking and financial industries provide for the establishment of strong linkage between the Islamic concept of development and the notion of inclusive finance by integrating *waqf* into modern financial practice.

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The Impact of Productive *Zakat* on Income Inequality of *Mustahiq* in Yogyakarta

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Keywords: Income Inequality, Productive *Zakat*, *Mustahiq*

Inequality in income distribution is one of the economy problems that faced by most developing countries and Indonesia is one of them. In order to reduce the income gap, Islam proposes an instrument as the solution to solve this problem, such as *Zakat*. *Zakat* is not only an obligation for the Muslim but also has the goals to improve the economy condition in society. There is the movement of wealth from high income society to low income society in *zakat*, so the income will not be distributed in certain society. *Zakat* distribution can support to achieve one of the Sustainable Development Goals (SDGs) such as goals number 10 which is reduced inequalities. This research aims to analyze the effect of productive *zakat* on reducing the income inequality among *Mustahiq*. Survey by using questionnaire was applied in this research to find the data from *Mustahiq* population in Yogyakarta City. Lorenz curve, Gini ratio Index and World Bank Inequality Criteria were applied to analyze the inequality of income distribution. This research found that distribution of productive *zakat* was decreased the inequality of income among *mustahiq* as shown on the decreasing of area in Lorenz curve. Besides, Gini ratio was also reduced from 0,37 to 0,30 which shows the decreasing of income inequality among *mustahiq*. Then, the proportion of income in 40% low income society increased from 16,65% to 21,36%. The income inequality at a certain level can

be positive because it provides opportunities for those who want to work hard and innovate to get rewards. However, high-income inequality can be a negative effect on economic growth, slow poverty alleviation, and weaken social harmony (Sastra, 2017).

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Table 1. *Gini Index in the Special Region of Yogyakarta*

Source : Susenas BPS, 2018

Almost every year, income inequality in the city of Yogyakarta had increased. It is included in the criteria

City/Regency	Year							
	2010	2011	2012	2013	2014	2015	2016	2017
Yogyakarta	0,37	0,35	0,36	0,44	0,42	0,44	0,43	0,45
Sleman	0,37	0,42	0,47	0,39	0,41	0,45	0,40	0,41
Bantul	0,32	0,38	0,41	0,33	0,32	0,38	0,40	0,41
Kulon Progo	0,27	0,39	0,42	0,31	0,38	0,37	0,37	0,39
Gunungkidul	0,27	0,34	0,37	0,27	0,30	0,32	0,33	0,34

for moderate levels of inequality. This condition provides a representation that the results of the development by the Yogyakarta City government haven't been perceived by all population evenly. The increased income inequality must be overcome. It is can cause social jealousy and poverty would worsen.

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Specialization and Comparative Advantage: Evidence from Top Ten Main Actors of OIC Countries in Disruptive Era

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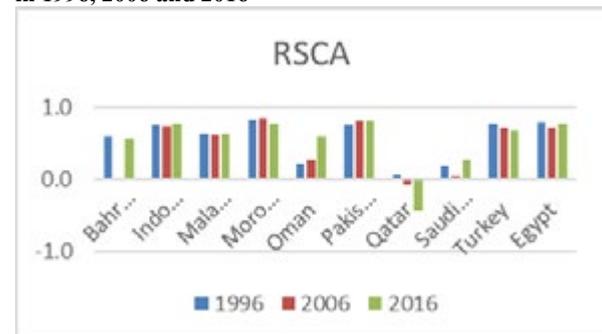
Keywords: Specialization; Comparative advantage; RSCA index

We examine specialization and comparative advantage of top ten main actors in the OIC countries, including Indonesia and Turkey. We use product definitions based on the Standard International Trade Classification (SITC), products are grouped with SITC Rev 2 with 3 digits. Data are taken from the UN-Comtrade. We are using the data of OIC top ten main actor trade in goods (export and import) to the world. To see the catch up process, among top ten main actors of OIC member countries, we employ product mapping analysis that is the combination of Revealed Symmetric Comparative Advantage (RSCA) and Trade Balance Index (TBI). This product mapping was developed to examine the competitiveness and trade specialization, where this paradigm tries to explain the phenomenon of industrial development in catching up with the economy. RSCA as an indicator of comparative advantage and the TBI as an indicator of export and import activities. In addition, TBI is used to analyze whether a country specializes in exports (as a net exporter) or in imports (as a net importer) for a certain group of products (SITC). Based on product mapping analysis, results shows that there has been a changing pattern of Empirical Trade statistics Analysis (ETA) Code of product group A to group E including 3 digits unclassified product group related to top twenty product in their competitiveness and specialization (commodity and country based) in 1996, 2006 and 2016 of ten main actors of OIC countries including Indonesia and Turkey. To analyze whether trade patterns towards specialization or diverification,

Revealed Symetric Comparative Advantages (RSCA) index is used (Wörz, 2005; Widodo, 2009a; Widodo, 2009b; and Widodo, 2010b).

JEL Classifications: F40; F47

Figure 3.1 RSCA on Average: Top Ten Main Actors of OIC in 1996, 2006 and 2016



Source: UN-Comtrade, Author Estimation

Figure 3.1 shows that, among top ten main actors of OIC, on average, during three decade there are top five OIC main actors consider have the highest RSCA such as Morocco, Pakistan, Indonesia, Egypt, and Turkey. Moreover, RSCA of Indonesia and Pakistan show a good performance.

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Disability Contracts in the Jurisprudence of Transactions (Fiqh Mu'amalah) Perspective

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Keywords: contract defects, the jurisprudence of transactions (fiqh mu'amalah)

The following article discusses disability contracts in the fiqh mu'amalah (jurisprudence of transactions) perspective. Where in a contract, sometimes there are some defects that can cause the contract to be considered invalid or at least the contract

can be canceled. The material of this article covers the various defects against the contract which are al-ikrah (coercion), al-ghalath (error), al-ghabn (disguise of price), at-tadlis (fraud), al-jahalah (ignorance), al-gharar (betting and obscurity), as well as the

implications of the defects against the contract. Contract according to the etymology of the word *'aqada – ya'qidu – 'aqdan* which according to the language means *ar-rabth* (bonds), *al-'uqdah* (connection), and *al-'ahd* (the promise). As for the contract according to the terminology is the Alliance of consent and *qabul* which justified the means to establish the *shari'a* (compliance) both sides (Suhendi,

2005, pp. 45-46)
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Islamic Social Reporting and Factors that Influence its Disclosures Practices among Companies Listed in Indonesia Sharia Stock Index during 2015-2016

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Keywords: Islamic Social Reporting (ISR); Company Size; Profitability; Size of Commissioner board; Islamic Securities; Leverage.

Islamic Social Reporting has been promoted as instrument to encourage business entities to comply with Islamic teachings. The objective of this research is to obtain empirical evidence about factors that influence of Islamic Social Reporting disclosure for companies listed in Indonesia Sharia Stock Index. Population of this study is all companies listed during 2015-2016. The 163 samples were selected based on purposive sampling and the analysis was conducted by multiple regression method. The result shows that the company size and the issuance of Islamic securities have positive effects on the disclosure of Islamic Social Reporting. On the other hand profitability, leverage and the size of commissioner board do not have effect on the disclosure of Islamic Social Reporting. Corporate social responsibility (CSR) has been a concern in the past few dacades because it is closely related to the application of corporate business ethics.

The concept of CSR or social responsibility has been carried out in developed and developing countries (Kariza, 2014).

Tabel 1: Descriptive Statistics

Table 1 shows that 163 samples in this study. The ISR variable has an average value of 0.5713 or 57.13%. The minimum value is 0.30 or 30% and the maximum value is 0.77 or 77%. Meanwhile the standard deviation value is equal to 0.10572 or 10.572%. This data shows that the average disclosure of corporate social

responsibility in Indonesia is quite good.

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Portrait of Islamic Financial Literacy of MSME Actors and Their Impact on Business Development

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Keyword: *Islamic Financial Literacy, micro, small and medium enterprises*

MSMEs are part of the supporting aspects of the country's economy. Over the past five years, the level of absorption of labor in the MSME sector grew from 96.99 percent to 97.22 percent. However, the competitiveness of MSMEs in Indonesia towards the global economy still tends to be low when compared to other ASEAN countries. This is caused by low levels of education and expertise, difficulties in obtaining licensing for MSMEs, lack of access to capital, and lack of infrastructure support. One of the aspects that should not go unnoticed in the field of education and expertise in financial literacy levels of society whose activities cannot be separated from financial institutions. The purpose of this research is not just to analyze, to classify the level of MSME Islamic financial literacy. However, the research also this it aims to determine the impact on the development of Islamic financial literacy. The approach of this research is quantitative descriptive with 1392 samples, obtained by using *cluster random sampling technique* in the DIY province. The results of this study are the level of DIY MSME Islamic financial literacy in the *Less Literate* category. The effect on the business developing had a positive and significant influence amounted to 36.1%. With this finding, it is expected to be an input for regulators in the framework of planning and implementing policies related to Islamic financial literacy. The discussion on Micro, Small, and Medium Enterprises (MSMEs) is one of the new issues to be appointed in the achievement of an economic growth per Indonesia. This is not excessive considering that MSMEs are part of the economic support aspect, and their existence is believed to be able to contribute to poverty alleviation efforts through job creation. During the last five years, the absorption rate of labor in the MSME sector grew from 96.99 percent to 97.22

	N	Minimum	Maximum	Mean	Std. Deviation
Company Size	163	22.97	33.20	28.8047	1.58701
Profitability	163	.002	1.360	.14596	.155323
Board of Commissioner's size	163	2.00	12.00	4.3497	1.85770
Sharia Securities	163	.00	4.00	.4601	.66894
Leverage	163	.01	18.21	1.0258	1.58496
ISR	163	.30	.77	.5713	.10572
Valid N (listwise)	163				

percent (Djuwita, 2018: 107).

Graph 2. Development of DIY MSMEs



Source: Ministry of Cooperatives data on the development of cooperatives and DIY SMEs

If the OJK National Survey on Financial Literacy referred to above will be used by the OJK as the primary material in the preparation and refinement of policy strategies in order to increase financial literacy and inclusion contained in the National Literacy and Financial Inclusion Strategy.

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Analysis Of Islamic Financial Inclusion For Micro, Small And Medium Enterprises (Msmes) N Yogyakarta

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Keywords: MSMEs, financial inclusion, microfinance, sharia finance

Micro, small and medium enterprises (MSMEs) play a significant role in economic development in Yogyakarta. Based on 2016 census data, total number of businesses amounting to 246,217 business units, the number of MSMEs was 235,313 or 98.40% of the total businesses in Yogyakarta. Yogyakarta's economic growth in 2017 was 5.26% (yoy), where the share of MSMEs was quite significant, around 95%. However, the big problems faced by the MSMEs are financial inclusion are still low, around 30% (Disperindagkop,2016). In view of this, there is a vacuum of information that demands a need to empirically investigate to what extent MSMEs has gained access to Islamic financial credit facilities and examine causes that lead to a such situation.

The purpose of this research is to assess selected attributes of the MSMEs and analyze the causes of the low access to Islamic finance. Data obtained using survey techniques and in-depth observation to provide answers of the problems faced to explain the

phenomenon. The results indicated that MSMEs access to Islamic finance is relatively low and only 30% at the beginning of their business using funds sourced from sharia financial institutions. This condition is an irony because of the rapid development of Islamic financial institutions, especially BMTs in Yogyakarta, and most business actors are micro and small scale, which should be served by sharia microfinance institutions. Overall, this research provides some important insights for Yogyakarta to highlight possible steps for the policy makers as a reference to formulate policies related to increasing financial access for MSMEs. Askari(2011),

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The Role of Zakat in Treatment Victims of Natural Disasters -Maqashid Review-

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Keywords: Zakat, Maqashid, Natural Disaster

Zakat is a means of social solidarity established by Islamic law to prevent anyone from falling into the cycle of poverty, whether for prevention or treatment. The study aimed to know the possibility of improving the role of Zakat as a solution to the government in responding needs of the victims of natural disasters in accordance with Maqasid Sharia goals. We often face funding problems during disaster management, reconstruction and rehabilitation. This study initially dealt with geographical situation of Indonesia, which is vulnerable to any natural disasters, and then discussed the jurisprudence of scholars on the ruling on issues related to Zakat payment for victims of natural disasters in addition to the amount since they are not included in the eight categories mentioned in the Koranic text. The study concluded that Zakat can be used as a preventive tool to prevent natural disasters by applying it as one of the obligations for society and state income and then treating its victims during alleviation, rehabilitation and reconstruction phase, In line with the purposes of Koranic texts related to zakat, by allocating parts of Fuqara, Masakiin, Muallaf, Gharimin and Ibnu Sabil.



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The role of simulation training in assisting general unit nurses to manage the deteriorating patients: A literature review

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Keywords: simulation, clinical nurses, deteriorating, outcomes, investments, benefits

Background: Simulation-based training has been adopted in the clinical area to improve nurses' knowledge and skill to recognize and respond to the deteriorating patients. However, the use of simulation training needs high-technology, professional trainer, funds, and simulation laboratory. Recently, innovation in conducting simulation-based training is increasing and is intended for clinical nurses.

Method: This literature review searched relevant online database including CINAHL, Scopus, Science Direct, and PubMed to gather relevant studies.

Results: Twelve articles demonstrated that simulation training could increase the clinical nurses' competence to recognize and respond timely to the deteriorating patients, and it has a potential effect to improve patient outcome. Only one research demonstrated that simulation training is worth to conduct and could reduce the additional cost in the hospital.

Conclusion: Simulation training provides value as an effective method to educate general unit nurses in managing the deteriorating patients and potentially has benefit for patient outcomes and saving the additional cost.

An accurate response to a deteriorating patient is a

crucial skill for clinical nurses in managing patients who are clinically deteriorating (Massey et al., 2017). Two quantitative researches by S. J. Cooper et al. (2017) and Chung et al. (2018) also evaluate the impact of web-based simulation training on nurses skill development. S. J. Cooper et al. (2017) assessed clinical nurses' performance and competence before and after being involved in simulation training. The improvement as assessed by the clinical examination was 10.6%, and by using two Likert-scale question, nurses perceived their skill to have upgraded notably (S. J. Cooper et al., 2017). Similar to a study by Chung et al. (2018) which evaluated the nurses' skill development after completing three simulation scenarios, it showed that the nurses' performance improved from 61% to 74% and this improvement was significantly correlated with knowledge scores. Similarly, Armenia et al. (2018) reported that the simulation training method is an effective means of training and evaluating the nurses' skill and has the capacity to develop multidisciplinary teamwork

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Differences Regarding the Role Perceived Doctors and Nurses Against Patient Satisfaction

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Keywords: patient information, nurse-doctor satisfaction, patient expectations, patient satisfaction

Objective: To assess and compare the roles perceived by doctors and nurses regarding medical information conveyed to patients and to compare them with patient opinions regarding the quality of medical information delivered to patient. Using the questionnaire given to 300 doctors and 500 nurses, and the inpatient satisfaction survey of as many as 1,000 patients a day before returning home, as part of the patient quality information improvement program at regional hospitals in Banjarmasin. The analysis was carried out using SPSS. The results of this study were that the announcement of the diagnosis and prognosis was made only by doctors. Regarding the explanation of the diagnosis, information about the investigation, and the benefits and risks of treatment, carried out by the nurse, while the doctor considers that generally the doctor provides information. Patients generally strongly agree with the information submitted, but more than 20% disagree with information about the benefits and risks of investigation and treatment. The most important problem highlighted by nurses is that they do not have the knowledge of medical information delivered to patients by 55% doctors to the patient and to compare it with the patient's opinion about the quality of medical information delivered to patients.

Effective interdisciplinary collaboration is needed in nursing practice between nurses and doctors. Relevant literature has focused on interactions between doctors and patients (Reynolds, 1978; Linfors & Neelon, 1980;

Blanchard et al., 1983; Fox, 1993) or between relatives and patient doctors (Bains & Vassilas, 1999; Kassity, 1999). The importance of collaboration between doctors and nurses as a teaching strategy for doctors and nurses (Sedlak & Doheny, 1998; Segal & Mason, 1998).

Research involving nurse-physician interactions has identified nurses 'passivity and lack of nurses' trust in delivering health information (Sanson-Fisher et al., 1979; Weiss & Remen, 1983; Busby & Gilchrist, 1992; Mallik, 1992; Pope, 1993; Wright et al., 1996; Felten et al., 1997). As a means to deal with nurses' passivity problems, Busby & Gilchrist (1992) recommend that all members of the multidisciplinary team must participate in two-way communication. To achieve this goal, they

suggest that nurses become more active in communicating in discussion and decision making, while doctors must give up control to nurses.

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The efficacy of chlorhexidine bathing to prevent multidrugresistant infection in the Intensive care unit: a literature review

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Keywords: chlorhexidine bathing, multidrug-resistant organism, infection, ICU

Lack of antibiotic prescription could cause the bacteria mutated into organisms that led to multidrug-resistant infection. Preventing this infection at patient in Intensive Care Unit (ICU) should be a priority for health care provider because the treatment is difficult and costly. Chlorhexidine that has been widely known as antiseptic in health care setting shows promising protector effect from infection. This review will identify the efficacy of daily bathing with chlorhexidine to prevent multidrug-

resistant infection in the ICU. Five online databases were searched for the articles that meet with the criteria. Seventeen articles were included in this review. Daily bathing with chlorhexidine had a different effect for preventing infections caused by the multidrugresistant organisms including methicillin-resistant staphylococcus aureus (MRSA), voncomycin-resistant enterococcus (VRE), fluoroquinolone-resistant gram-negative bacilli (FQRGNB), carbapenem-resistant

Acinetobacter baumannii (CRAB), and highly resistant Enterobacteriaceae (HRE). To enhance the protector effect in ICU, chlorhexidine bathing must be combined with the other approaches such as antimicrobial prescription and hand hygiene program. The future research related to bacteria resistant to chlorhexidine is needed to monitor whether this approach will effective following trend of infection disease in ICU. Keywords

Some organisms mutated into multidrug-resistant organisms are located in the human skin (Climo et al., 2013; Huang et al., 2013). The organisms colonise in the multi-site of the body including anterior nares, axilla, inguinal, and the others (Chen et al., 2013; Musuuza et al., 2017). Therefore, the whole-skin body cleaning is important to reduce those organisms. Bathing with a conventional approach, a nonantimicrobial soap and water, may reduce colonisation of any pathogen but has not proven to be an effective bathing for multidrug-resistant organisms (Boonyasiri et al., 2015; Climo et al., 2013; Maxwell et al., 2017). Patients with conventional bathing were more likely to acquire multidrug-resistant infection than patients with chlorhexidine bathing approach (Ruiz et al., 2017) This finding was congruent with an observational study by Duszynska et al.(2017) and Petlin et al, (2014) shown that before

implementing the chlorhexidine bathing in the ICU, the number of patients with multidrugresistant infection was high. After implementing bathing with 2% chlorhexidine impregnated washcloth in three months, the number of infections with the multidrug-resistant organism in the ICU was decreased by 32 % (Duszynska et al., 2017). Bathing with chlorhexidine reduced the density or colonisation of multidrug-resistant organism on the patient's skin (Chen et al., 2013). Consequently, the bacterial acquisition was inhibited, and it may have affected to the lower rate of the infection.

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ISLAMIC NURSING CARE IMPLEMENTATION: A DESCRIPTIVE STUDY

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1

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Keywords: Islamic nursing care, implementation, Islamic care, nurse.

Patients, particularly those who are Muslim have the right to obtain nursing care according to their values and beliefs. Nevertheless, in its implementation, those patients are commonly have not yet received the care that they supposedly receive. Nurses who works in hospitals that embraced Islamic values as their fundamental pillars of the health care deliveries, have not been able to implement the Islamic nursing care optimally. Therefore, this study aimed to explore the Islamic nursing care delivery in hospital. Methods: A cross-sectional design was chosen to investigate the research question. A proportional sampling technique was used to approach the participants, resulting a total of 51 nurses who works in in-patient units participated in the study. A checklist which had been validated was used to collect data on the Islamic nursing care. This instrument consisted of 23

statements measuring nurse practice in Islamic nursing care. Results: More than half of the nurses (64.7%) demonstrated insufficient level of the Islamic nursing care implementation whereas the rest (35.3%) were identified to have good level of implementation. Conclusion: The study indicate that not all nurses have implemented the Islamic nursing care optimally. In order to improve the nurse performance, it is suggested to supervise the implementation of the Islamic nursing care in the hospital.

The majority of respondents' sexes were women (n=41; 80.4%). It is supported by Pramithasari (2016) study which revealed that the nature of maternal instincts possessed by a woman can support the implementation of nursing care given to patients, hence it is one reason that the number of women nurses higher than the

opposite sex.

Most of the respondents' education was undergraduate (n=27; 52.9%). This is in line with the Mulyaningsih (2013) study which argued that nurses' level of education can affect their level of competency. The higher the level of education, the easier it is to receive and develop knowledge and technology. In Purwaningsih (2018) study, it is said that the level of education can affect the level of competency. The competency that can be increased by the level of education is intellectual competency, so that if someone's intellectual increase, it is expected to be able to make the right decision to act.

Most of the respondents worked for more than 3 years (n=32; 62.7%). According to Mulyaningsih (2013), working period affects someone's experience, the longer the working period is expected to have more work experience. Someone who has a long working period

indicates that his/her experience is more than his/her coworkers. The working period can also influence the attitudes and behavior of nurses in implementing nursing care. So that according to the study, nurses who have longer working periods should be able to show better nursing care.

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THE EFFECTIVENESS OF GIVING BALANCE EXERCISE FOR OLDER PEOPLE IN POSYANDU WREDA PRATAMA PADUKUHAN KALIRANDU, BANGUNJIWO, KASIHAN, BANTUL YOGYAKARTA

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Keywords: older people, balance exercise

Background : Aging is a natural process that the characterized by a decreased function of various organs in the body. This process is causing of older people to have a risk of various health problems. One of the health problems that experienced by older people is body balance disorders. Body balance is influenced by complex and coordinated of interactions between sensory components (visual, vestibular and proprioceptive input) and motor or musculoskeletal responses.

Objective : To provide an overview the implementation of nursing intervention and services to older people that have balance disorders in Padukahan Kalirandu, Bangunjiwo, Kasihan, Bantul, Yogyakarta.

Research Method : This study used quasi experiment, which aims to determine the effectiveness of giving

balance exercise interventions to older people. The sample in this study was 46 respondents. The location in this research was Posyandu Wreda Pratama Padukahan Kalirandu, Bangunjiwo, Kasihan, Bantul, Yogyakarta.

Results : The results of this study showed that there was a decreased in the average of the results of body balance before and after the intervention was given. The results before the intervention are 13.93 seconds and after the intervention it decreased to 12.13 seconds.

Conclusion : The conclusion of this study showed that there was a relationship between the provision of balance exercise with reduced risk of falls to older people in Posyandu Wreda Pratama Padukahan Kalirandu, Bangunjiwo, Kasihan, Bantul, Yogyakarta.

The majority are characteristics in this study that had the risk of fall were the age of 60-74 years (52.2%). The age

of the older people who getting older, will be responded by the body that was experienced changes in muscle strength, gait and power to walking, and also functional body (Novita, rahmayani & Hardi, 2017). The condition of the body which has decreased, it accordance to the word of God in QS Ar-Rumm verse 54 : "Allah, He who created you from a weak state, then He made (you) after the weak condition became strong, then He made it (you) after strong are anemic (back) and gray. He made what He wanted and He is the Knower, the Almighty. "

Increasing age of the older people will be through decrease in physical function resulting in degenerative disorders. One of degenerative disorder that is a musculoskeletal disorder that can increased the risk of falls in the older people (Widarti & Triyono, 2018). Increasing of age it can be increase the older people to

have the risk of fall, this is caused by several factors it consist of age, pathological conditions, environmental factors, physical, psychological, financial, cognitive and religiosity changes (Ramlis, 2018; Susilo, Limyati, & Gunawan, 2017).

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The relationship of self efficacy with self care of diabetes mellitus patient: Litterature review (a) Leya Indah Permatasari

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Keywords: Self Efficacy, Self Care, Diabetes Mellitu)

Background. Diabetes Mellitus was a chronic illness that it needs long term treatment. Self efficacy would help of satisfaction and success in doing self care. Self efficacy was a satisfaction of ability in developing the action to avoid complication. The aim of this literature review was to analyze the relationship between self efficacy with diabetes mellitus self care.

Methods. The author conducted a review qualitative or quantitative researches literature that discussed dealing with the relationship of self efficacy and diabetes mellitus self care. The author conducted of the research using PubMed, Proquest, Google scholar. There were 10 articles related with the discussion of this literature review. The result of literature showed that there were positive relationship between self efficacy and diabetes mellitus self care.

Conclusion. Self efficacy was one of sources for diabetes mellitus patients in doing self care. Self care was done by changing a life style and do a positive things to control diabetes mellitus. An effective self care could minimize complication, improving confident and be independent, since self care was one of a key factor in enhancing healthiness.

Walker et al (2014), stated that there were significant relationship between self efficacy diabetes that measured with self management which feel it and glikemik control,

health component quality life, take care of medication and most of the self care attitude (diet, practice, and blood pressure tests).

Someone who have a high self efficacy would have a high motivation, a clear purpose and the purpose to do behaviour until succeed. Shi, Ostwald dan Wang (2010), showed that self efficacy very closely with behavior of self care to diabetes patient. According to Hu, Li dan Arao (2013), self efficacy had been known as key factor in doing self care an chronic illness management. According to the research of McAuley, et al (2006), stated that self care gave more contribution to the understanding in the process of behavior changes of health so self care was very important to enhancing knowledge, behaviour and ability (Varekamp et al, 2009).

Shi, Ostwald dan Wang (2010), showed that self care closely with self care behaviour to the diabetes patient. This is also showed that diabetes mellitus patient need to give more motivation and faith about their ability in self care. Self care would be effective when it can minimize complication, increasing confident and independence because of self care key factor in increasing a healthy. The purpose of therapeutic DM type 2 was to achieved blood glucosa normally without hipoglikemia and serious problem to the patient activity (Smeltzer & Bare, 2008). Five pillars in manage DM type 2 were diet, practice, controlling blood sugar, take care of medication to prevent hypoglikemik and practice (Smeltzer & Bare,

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The Effect Of Poster-Based Pictorial Health Warning Quit Smoking Behavior Toward In Adolescents Of Tlogo, Tamantirto, Kasihan, Bantul

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Keywords: Pictorial Health Warning, Posters, Smoking Behavior, Adolescent smokers

Background: The Government of Indonesia in 28 PERMENKES Explains Pictorial Health Warning or Health Warnings and Writings are images that provide information about the Dangers of smoking. Drawings and Writings Health Warnings shall have the meanings are printed together with the Tobacco Products Packaging and not a sticker attached to the Tobacco Product Packaging or replaced by the consumer with a cute sticker. Smoking behavior among adolescents need to be enhanced by utilizing the visual media warning poster image or PHW

Purpose: The purpose of this study was to know the effect of PHW-based quit smoking posters on adolescent behavior hamlet Tlogo

Methods: This study is a quantitative research, quasy-Experimental with pre-test and post-test control group design. Measurement of behaviors can be done during the pre-test and post-test for 1 month. The research was conducted from January to March 2016 in the hamlet Tlogo. Respondents consisted of 16 treatment groups were given intervention in the form of posters based on PHW and 16 people in the control group.

Results: The results of Wlicoxon Signed Ranks Test Showed no influence PHW-based poster with a value of $p = <0414$ then there is no difference in the level of smoking behavior in the intervention group and the control group. The Mann-whitnet test result on the

difference in the smoking behavior of pre-tets control group and treatment group Obtained the result of 0,812 and the Mann-Whitney test result on the defference in the smoking behavior of the post-test control group and the treatment group Obtained the result of 0.838.

Conclusion: There is no effect of PHW-based posters on adolescent smoking behavior in Tlogo Village Poor Bantul. The next researchears are to be expected to do a deeper analysis on factors that related to adolescent smoking behavior.

In this research shows that dominates the result is a category change smoking behavior behavioral categories were (15.6%). This study is not in line with the research (Subroto, et al, 2009) which states that learning to use visual media in the classroom to improve student learning outcomes or there are significant visual media in ruangg class that is equal to 57.29%. Akmal, Rahmatika, and Fitria (2015) argued that the use of visual media posters, leaflets accompanied by presentations effective in improving students 'know knowledge for dangers of smoking, but it can not affect students' attitudes toward smoking behavior.

In the investigators' analysis revealed that the categories of behavioral changes obtained in this study can be caused by several factors, namely television and the mass media or bilbord that causes the smoking behavior of adolescents and also to establish a change in smoking behavior need to provide interventions that

more is not only a visual medium poster ,

In theory the form of human behavior suggests that there are two kinds of responses form of behavior that is passive and active forms, the passive voice is an internal response that is occurring in man and is not directly visible to others (Henry and Goddess, 2011). Dikatan in the human behavioral factors (Henry and Goddess, 2011) of respondents in this study included into the factors - factors that are detrimental to health

conscious behavior

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CLINICAL INSTRUCTURE BEHAVIOR WITH ACHIEVEMENT OF COMPETENCY OF PREGNANCY AND LABOR OF PRIVATE CLINICAL PRACTICES

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Keywords: Clinical Instructor, Achievement of competence

Midwifery clinical learning in midwifery students aims to improve knowledge, skills and attitude. Clinical learning method, later on, provides experience for students to learn in real cases. The role of Clinical Instuctor in achieving student competence is very important to get the expected competencies. The purpose of this study is to determine the relationship between the behavior of clinical instructors and the achievement of pregnancy competence and childbirth in midwifery clinic practice. This study used descriptive research in the way that the population in this study were all 41 midwifery students and using total sampling. The result of this study showed that CI behavior in guiding clinical practice with good category was 66% and moderate category was 34%. Furthermore, the achievement of pregnancy competencies with good category was of 56% and moderate category was 44%. The Achievement of labor competency with good category was 44% and moderate category was 56%. Therefore, it can be concluded that there is relationship between the behavior of Clinical Instructors and the achievement of pregnancy competencies ($0.001 < 0.05$) and there is a relationship between Clinical Instructor behavior and labor competency ($0.006 < 0.05$). CI is expected to be able to spend time in assisting and guiding students thus the clinical learning goals can be achieved optimally.

The results of this study indicate that students, lecturers and clinical guidance midwives propose clinical learning models that are more concerned with quality than

quantity to achieve midwifery care competencies. They propose that midwifery clinic learning uses a caseload model that is tailored to the needs of each student in line with midwifery philosophy by facilitating ongoing midwifery care (Yanti, Emilia, & Claramita, 2014). Midwives must work Together with students is a basic need that can influence whether students will progress or develop into independent practices (Myrick & Yonge, 2004). The counselor is well prepared for mentoring and creates a partnership in work (Nursing, 2009). Trust, experience or knowledge, coaches and role models. Students find that they gain more knowledge, develop more critical thinking and feel more confident with instructors who utilize characteristics and techniques (Niederriter, Eyth, & Thomas, 2017). The instructor's role in nursing practice has initiated changes in how clinical instructors are used and supports positively contributing to outcomes related to context-relevant curriculums which eventually foster future nurses with the ability to make a difference in the health care system (O'Rae, Langille, Aaron Li, & Rutherford, 2017)

CONCLUSION

It can be concluded that there is a relationship between the behavior of Clinical Instructors and the achievement of pregnancy competence ($0.001 < 0.05$), there is a relationship between Clinical Instructor's behavior and labor competency ($0.006 < 0.05$). A good Instructor Behavior will improve the achievement of pregnancy competencies. Good instructor behavior will improve

labor competency outcomes.

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THE RELATIONSHIP PLAYING WITH COGNITIVE DEVELOPMENT IN CHILDREN OF PRE-SCHOOL AGES IN TK MEKAR SARI, TANJUNG ANYAR VILLAGES,GAJAH SUB DISTRICT, DEMAK DISTRICT IN 2018

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Keywords: Pre school children, playing, cognitive development

The Children generally have great potency which must be developed in their future. They are different from adult in certain characteristic for example they are more active, dynamic, inquiring and enthusiastic to what they see, listen, and feel. They also curious to explore and learn new thing. Cognitive growth is a way of children to use their thinking and intuition and Playing is the important thing to support growth of childrer including physical, cognitive, language, emotional social, and psychomotor growth. The aim of this study is to examine the relationship between playing and cognitive development of pre school ages children at Mekarsari Kindergaten of Tanjung anyar, Gajah sub district, Demak in 2018. This study employed correlation study in the way that the Sample taken by total sampling technique consisting of 35 respondents. Furthermore, this study was analyzed and tested using Spearman Rank test. This study showed that respondents having ability of playing with good category was 27 respondents (77,1%). Meanwhile, respondents having cognitive development with good category was 30 respondents (85,7%). Therefore, there is relationship between playing and cognitive development of pre-school ages children at Mekarsari Kindergaten of Tanjung anyar, Gajah sub district, Demak in 2018 with p value of 0.033.

This is supported by the research of Apriyani Puji Hastuti (2015) entitled entitled The Relationship Between Variation in Playing with Cognitive Development in Children Pre-School Age Group A in Pgr1 01 Kedungkandang Malang obtaining results there is a relationship between play variation and cognitive

development of preschoolers.

According to Tismatul (2011) play has a very broad function for the growth and development of children, both physically, cognitively, language, emotional social, and psychomotor. Based on quantitative descriptive research conducted by Willy (2009), entitled "the relationship to play with cognitive development of preschoolers" it was found that the game recognizes color (drawing using colored pencils) can significantly improve students' cognitive development.

CONCLUSION

Most respondents have the ability to play in the good category as many as 27 respondents (77.1%). Most respondents have cognitive development in the good category as many as 30 respondents (85.7%). There is a relationship between playing with cognitive development at preschool at Mekar Sari Kindergarten, Tanjung Anyar Village, Gajah District with p-value 0.033.

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Drug Abuse and Relapse Prevention Mechanisms: A Phenomenological Study on The Lived Experiences of Former Drug Users in Yogyakarta Indonesia

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Keywords: self-awareness; relapse prevention; drug abuse

The relapse of drug abuse is the most difficult problem that former drug users must face. This problem will continue to exist until the moment when the drug users are able to stop consuming the drugs. The process of recovery is a process which the drug users take as their efforts to stop consuming drugs and this process could be affected by many factors. The study aims to explore former drug abuse users experiences in an attempt to stop consuming drugs and relapse prevention. Qualitative research design with a phenomenological approach was used in this study. Eight former drug users in Yogyakarta were involved as the participants. The data was collected through in-depth interviews within 60-90 minutes for each participant. The data analysis used was the Colaizzi seven stages method. Three emergent themes were drawn: internal triggers of drug abuse relapse, external triggers of drug abuse relapse, and memorable life events supporting drug abuse users in stopping the drug consumption, such as family, religious, government policy, police arrests and drug outbreaks. The conclusion of this study is that it is found that there are induced factors of internal and external factors and the protective factor of self-awareness in drug abuse prevention efforts developed from the most important event of the lives of former drug abuse users.

Drug addicts tried to stop ineffectively on their first attempt (Stuart, 2013). In this study, the causes of relapse of drug abuse could come from both the internal and the external factors. The internal relapse triggers were suggestions and post-acute withdrawal syndrome. Long-term drug use results in significant changes in brain function that can last long after the individual ceases to take drugs. (National Institute of Drug Abuse, 2013). Significant changes in brain function are due to changes in structure in the brain. Changes in brain structure affect brain function according to the location of the damage and in this case causing a change in one's thoughts, feelings, and behavior. A change in mind is one of the

most powerful suggestions (Sidis, 1919). The suggestions could appear after an external stimulus that creates such pleasant impressions as earlier drug use and eventually recreates drug relapses. The relapse caused by the suggestion in this study coincides with studies carried out in Bengkulu where the majority of participants relapse because of suggestion (Kurnia, 2015). The absence of inadequate strong factors that help to prevent the relapse increases the chance of the relapse of the former drug abuse users. Strong suggestion also affects the defense mechanisms of the drug abuse users. Weak defense mechanism in drug abuse users could influence relapse (Halim & Sabri, 2013).

Another internal factor affecting relapse is post-acute withdrawal syndrome. Post-Acute withdrawal syndrome is the second stage of the first week through the second sign of various physical symptoms in people who stop using drugs. The physical symptoms of the post-acute withdrawal syndrome vary depending on the type of drugs used (Videbeck, 2011). Rosyidah (2010) mentions symptoms caused during the relapse process were similar. Uncomfortable physical conditions, and unstable psychological conditions, and an instinctive threat will lead a person to search for his comfort zone again. In this case, the former users have tried to find comfort zones both physically and psychologically by taking drugs back because there is a high dependence on them due to changes in the structure and function of the brain of drug users (National Institute of Drug Abuse, 2014).

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Psychometric Testing of Instrument for Assessment of Nursing Students Professional Behavior in Indonesia

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Keywords: Professional behavior, nursing student, validation

Background: Professional behavior is the key success for nursing career as professional nurses. Nursing education play an important role to educate nursing student to manage the complex demand in health care environment accordingly. However, the instrument to measure professional behavior among nursing student remains scarce.

Objectives: To adapt and validate the Nursing Students Professional Behavior Scale (NSPBS) and measure professional behavior among Indonesian nursing students.

Method: The original instrument (27 items) was translated using the translation guideline by World Health Organization (WHO) (2018). The total sample was 364 nursing students from Bachelor-level nursing school at the private University in Yogyakarta (Indonesia). The inclusion criteria was the students already been to clinical practice in the hospital. The Indonesian version of NSPBS was used to measure their professional behavior from August to September 2018. A Confirmatory Factor Analysis (CFA) using Partial Least Square (PLS)-Structural Equation Modelling (SEM) were conducted to evaluated the validity and reliability.

Results: The data fitted for three-factor model including healthcare practice, activity practice and reporting. The face validity and content validity has evaluated by six experts. The CFA showed excellent result with factor loading varying between .70 to .96 for the constructs. While the composite reliability (CR) for all latent constructs range from .90 to .96, which means that the internal consistency reliability was high.

Conclusion

The Indonesian version of NSPBS remains with 27 items

and was tested to be valid and reliable tool to measure the professional behavior of nursing students.

In this study, CFA was evaluated psychometric properties using PLS SEM including validity and reliability (convergent validity), average variance extracted and discriminant validity. It was considered that normality data distribution not assumed, non normal data could be conducted with non parametric method and larger number of indicator variables (Afthanorhan, 2013). The validity and reliability was used the reflective measurement model to achieve consistency. Then, the convergent validity and discriminant validity are the focus of reflective measurement model (Afthanorhan, 2013; Hair et al., 2011). The average variance extracted (AVE) for assessing convergent validity should have value of 0.05 or higher to indicate a sufficient degree of convergent validity (Hair et al., 2011). While, Fornell-Larcker criterion and cross loadings was used to determine the discriminant validity (Hair et al., 2011; Henseler, Hubona, & Ray, 2016). The square root of AVE should be higher than the correlation values each construct to determine Fornell-Larcker criterion; while cross loadings should higher than its loadings with all remain construct (Fornell & Larcker, 1981; Hair et al., 2011).

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Correlation between Gestational Age and Maternal Age with Pathological Neonatal Jaundice

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Keywords: Bilirubin; Gestational age; Pathological Jaundice; Maternal Age, Neonatal

Background: Pathologic jaundice is one of the causes of neonatal death. The risk factor of jaundice among others are pre term pregnancy that causes prematurity. Furthermore, it affects the growth of the fetus due to the immaturity of the reproductive organs.

Objective: To analyze the correlation between gestational age, maternal age with pathologic neonatal jaundice.

Method: The research used quantitative analytical method with cross sectional approach. The population in this study were the babies who were born in the maternity ward of Ulin Hospital Banjarmasin. The sample consisting of 297 babies was taken using systematic random sampling technique. The analysis using Kolmogorov-Smirnov test, Fisher Exact Test.

Result: 5.1% of neonatal have post-term gestation, 21.55% of mother delivered at risk of ages, 6.06% suffer pathologic neonatal jaundice. Some of neonatal (24.44% born during pre-term gestation suffered pathologic jaundice. The correlation between gestational age and pathological jaundice got p value = 0.035, correlation between maternal age with pathological jaundice got p value = 1.000. **Conclusion:** Gestational age associated with pathological jaundice and maternal age are not associated with pathological jaundice. The importance of health workers must assess gestational age of the mother on antenatal and intranatal care to anticipate jaundice, mothers always check baby to health services if baby appears yellow skin

The results of this study are also in line with the research of Mauliku and Nurjanah (2009) which states that there is a significant relationship between the age factor of pregnancy and the incidence of neonatal jaundice. The research findings from Mojtahedi et al (2018) conducted research on 200 mothers and neonates in hospitals in Tehran, Iran, gestational age of mothers when childbirth and the number of leukocyte counts (WBC), platelet counts (PLT count) and Hb values for

mothers associated with neonatal jaundice.

Infants born at pre-term gestation are susceptible to neonatal jaundice due to immature liver function. Baby's liver is not yet good enough to do its job so that the breakdown of erythrocytes (bilirubin), which causes yellowing of the baby-increasing body of baby and get the baby looks yellow, this situation arises due to accumulation of bilirubin pigments that color of jaundice in the sclera and skin (Faiqah, 2014).

Pregnancy through time is one risk pregnancy because it can cause danger and greater complications both for the mothers or to the fetus, the pregnancy has been overdue, the placenta will experience the aging process so that the function will be decreased or reduced. Decreased placental function will result in a baby's growth. Babies begin to lack of nutrients and oxygen supplies from their mothers. In addition, the amniotic fluid can turn into very thick and green. So that the liquid can be inhaled into the lungs and respiratory clog so that the baby asphyxiated (Wijayanti, 2010). Asphyxiated infants, bilirubin bond with the protein becomes disturbed, causing disruption of plasma bilirubin breakdown that can lead to increased levels of bilirubin body. This can happen if the levels of Y and Z protein decreases. Other circumstances that show an increase in bilirubin levels are found to interference when the hepatic conjugation or neonates with impaired excretion of bile duct blockage, for example due to a metabolic disorder due to lack of oxygen (Sastrawati and Meliati, 2012).

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Lamongan Free from Pasung Based on Community Mental Health Nursing (CMHN)

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Keywords: free from pasung, mental illness, community

Background. Pasung (physical restraint) in people with mental illness are commonly found in Lamongan. In 2014, Lamongan Government launched the 2017 Lamongan Free from Pasung program based on community mental health nursing (CMHN). The aim of this program was to free all patients in pasung throughout Lamongan. The purpose of this study was to describe the evaluation results of free from pasung program in Lamongan. **Method.** This study used a descriptive design with retrospective observation carried out on all patients in pasung in Lamongan Community Health Center during 2014-2017. **Results.** The number of mental illness patients in 2014-2017 was 3002 patients, 186 (6.2 %) were in pasung, consisting of 127 men (68.3%) and 59 women (31.7 %). At the end of 2017 all patients in pasung had been released. **Discussion.** The community-based 2017 Lamongan Free from Pasung program is very important program and has been proven to be successful in releasing all patients in pasung. **Conclusions.** This program should be carried out continuously to evaluate the possibility of re-pasung cases and early detection of new pasung cases so that interventions can be carried out as early as possible.

Community Mental Health Nursing (CMHN) is an effort to realize better mental health services with for unhandled patients in the community. The mental health service is in the form of a comprehensive, holistic, and complete nursing service, focusing on a healthy mental community who are at risk of stress and in the recovery phase and prevention of recurrence (Keliat, 2012).

The main focus in CMHN is the importance of family collaboration or people who are meaningful to patients and collaboration in various settings in the community. The CMHN aims to provide services, consultation and education, or provide information on mental health principles to other community agents. Another goal is to reduce the risk of mental illness and increase community acceptance of mental health practices through education. The most important CMHN concept is the provision of nursing care to healthy mental patients, families, groups and communities who are at risk of mental illness and experiencing mental illness without involving the

hospital (Yosep, Sutini, & Titin, 2014).

The CMHN concept model is to provide life long care for patients in all aspects of human life, including basic needs, physical health needs and patients who need psychiatric and rehabilitation treatment. Another model in CMHN is Case Management. This model is a way to provide services to patients in a multidisciplinary manner. In addition, this model allows to review the support system of the community and also identify patients, treatment, crisis response, dental care, housing conditions, income and rights protection and advocacy. All these activities are carried out jointly on patients who experience mental illness or those who are at risk of mental illness (Yosep et al., 2014).

There are several levels in CMHN (Keliat, 2012) including:

1. BC-CMHN (Basic Course): A series of learning activities for community nurses to have the competence in implementing nursing care for mental illness patients in the community. BC-CMHN activities include providing direct knowledge and practice for nurses in overcoming mental health problems.
2. IC-CMHN (Intermediate Course): It covers efforts to improve the quality of community services and prepare human resources (CMHN Nurses) through advanced training in the form of intermediate courses. This training is carried out in three stages; the first stage focuses more on the development of the Mental Health Alert Village and its management in recruiting and training mental health cadres.
3. AC-CMHN (Advance Course): It focuses on the development of a CMHN program which included families, groups, the wider community, and cooperation with cross-sectional groups.

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Description of Professional Behaviours Value of Nursing Student Level II Diploma Program AKPER Nursing Foundation Yogyakarta

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Keywords: Lavender Aromatherapy, Anxiety Level, OSCE , Nursing Students

Background: OSCE is a test based on skills (performance) observed when performing various clinical skills that are tested objectively and structurally. And OSCE has a weakness which can arouse feelings of anxiety in students. The causes of anxiety during OSCE are partly due to pressure from the environment, family and students who will take the exam, past experience that has failed in the implementation of the exam and is too afraid if the expected results will not match what is desired, causing anxiety to students.

The purpose of this study: This study to analyze the effect of the provision of Lavender Aromatherapy on the Decrease of Anxiety Level in Undergoing OSCE Level II S1 Nursing Students, Faculty of Health Sciences, University of Muhammadiyah Cirebon.

Research Method: This research use Quasi-experimental design with an approach (pretest-posttest one group Design), with a total sampling technique. The number of samples is 36 respondents. Data collection was done by questionnaire and standard TAI-G scale checklist tool. Technical analysis using the Paired T-test.

Results: Paired t Test results show the value of $p = 0.014$ (where $p < 0.05$) with the value of $t \text{ count} = 2.583$ ($t \text{ count} > t \text{ table}$ ($df 35 = 1.6896$) with a positive value (+).

Conclusion: Paired t Test test results concluded The provision of lavender aromatherapy was effective in reducing the level of anxiety in undergoing OSCE in second-level of Bachelor Nursing students.

Nursing academic education is a tertiary institution in

Indonesia that provides an understanding of theories and concepts. The process of nursing education consists of theoretical education and clinical education. The method that can be done to assess student clinical practice readiness is OSCE (Objective Structured Clinical Examination). OSCE can also be used to evaluate student clinical practice readiness (Farahat, 2015).

OSCE is a test format to determine student competency skills. OSCE is a test based on skills (performance) observed when performing various clinical skills that are tested objectively and structurally. Usually OSCE is used to evaluate and improve students' clinical skills, prepare qualified and competent graduates, and improve decision making (Rahmawati, 2016).

According to Tricintia (2017), OSCE is a method for assessing various clinical competencies (skills) pioneered by the medical profession. OSCE is used to determine the performance of practice (shows how) not only knowing the theory alone but know and can show its performance well (knows and knows how).

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The Prevalence and Risk Factors of Stunting Among Children in Rural Area: A Case Control Study in Yogyakarta, Indonesia

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Keywords: Stunting, rural area, children, risk factors, case-control study

The case of stunting in Indonesia was higher and still becomes a serious problem in poor rural areas. The aims of the study is to assess the prevalence and risk factors associated with stunting among children aged 6–59 months in rural areas in the Special Region of Yogyakarta, Indonesia. The study applied case control design. The cases group were stunted children and control group were not stunted children from October to December 2018. The data was collected by interviewing selected mothers of 6–59 months children and measuring the length/height of 23 children as case group and 91 children as control group. Logistic regression analysis was performed to identify the best model of factors leading to stunting in rural area. Adjusted Odds Ratio and 95% confidence interval were used as the measure of association. The prevalence of stunting was 20.8% out of which 52.2% were stunted, 4.3% were moderate stunted and 43.5% were severely stunted. The mean of children age in case and control group were 31.78 16.8 and 29.92 15.96 months with the mean of height for age Z score were -3.23 1.03 and -0.14 1.22 respectively. Diarrhoea was found significantly as the determinant factor of stunted children in rural area (AOR=7.79, 95% CI 2.59 – 23.33, $p = 0.001$). Understanding of the risk factors for stunting among children under five years in rural area is important to guide Indonesian government public health planners to develop nutrition programs and interventions for stunting.

This study reported that the prevalence of stunting was 20.8% out of which 52.2% were stunted, 4.3% were moderate stunted and 43.5% were severely stunted. Previous study showed the prevalence of stunting in Nepal was 38% (Dorsey et al., 2018), 57% (3.5% severely stunted, 27.3% moderately stunted and 26.4% mildly stunted) in Southern Ethiopia (Bogale et al., 2018), 43% in Bureau (Meshram et al., 2017), 15% in

Srilanka (Perkins et al., 2018), 23.3% in Vietnam (Minh Do et al., 2018). Stunting was more prevalent in children living in rural areas than in those in urban areas (Horiuchi, Kusama, Kanha, Yoshiike, & and the FIDR research and the FIDR research team, 2018). The prevalence of stunted children in rural area of Indonesia was 18% (Sahanggamu, Purnomosari, & Dillon, 2017).

The high incidence of stunting in rural areas is influenced by various factors. Previous research stated that the high incidence of stunting in rural areas is due to the low socio-economic status and unhealthy environmental conditions (Widyaningsih & Khotijah, 2018). Low socio-economic conditions make it difficult to get qualified health services (Widyaningsih & Khotijah, 2018). In rural areas, people lack of access to safe, clean drinking-water and basic sanitation. Moreover, in developing countries, 1.1 billion people still defecate in the open, and hand washing with soap is practiced, on average, only after 17% of toilet usage. These two factors caused high incidence of stunting in rural areas.

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The Implementation of Supportive Therapy for Attitude and Family Rejection with Family Member with Schizophrenia

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Keywords: sikap negatif keluarga, penolakan keluarga, keluarga dengan gangguan jiwa, dan terapi suportif

Sikap negatif dan penolakan keluarga terhadap anggota keluarga dengan gangguan jiwa meningkatkan kejadian kekambuhan pada pasien gangguan jiwa. Penelitian bertujuan untuk mengetahui pengaruh terapi suportif terhadap sikap dan penolakan keluarga dengan anggota keluarga gangguan jiwa skizofrenia. Penelitian ini menggunakan desain quasy experiment pre post with control group dengan pengambilan sampel menggunakan teknik Cluster Sampling. Jumlah sampel dalam penelitian ini adalah 51 keluarga yang mendapat terapi suportif dan 45 keluarga yang tidak mendapat terapi suportif. Penelitian menggunakan instrument family attitude scale dan acceptance and rejection scale. Hasil penelitian menunjukkan bahwa kelompok yang mendapat terapi suportif mengalami perubahan bermakna pada sikap negatif dan penolakan setelah diberikan terapi kelompok suportif ($p\text{-value} < .05$). Pada kelompok yang mendapat terapi suportif sikap negatif dan penolakan menurun lebih besar secara bermakna dibandingkan dengan kelompok yang tidak mendapat terapi suportif ($p\text{-value} < .05$). Saran dari penelitian ini adalah mengaplikasikan terapi kelompok suportif diranah komunitas dan keluarga.

Family Supportive Therapy for families with mental disorders is supportive therapy given to a group of people (two or more) families who have family members with mental disorders by clarifying the problems faced by the family so as to be able to utilize the support system that is owned and express their thoughts and feelings verbally (Hernawaty et al, 2009). Supportive therapy can

improve cognitive, affective, and psychomotor abilities in the family; this is supported by research entitled the effect of supportive therapy on the ability of families to treat clients with chronic renal failure undergoing hemodialysis in Pelni Hospital Jakarta by Wahyuningsih, Mustikasari, dan Waluyo (2011). Supportive therapy can be concluded as one of psychotherapy that can be done in a group of people (two or more people) or in families that have family members with chronic diseases and mental disorders to help reduce the burden and express their feelings.

Supportive therapy is a psychotherapy that aims to prepare patients to be able to maintain or enhance their personal functions and social functions through collaboration and mutual understanding of life's challenges (Hayes et al., 2006; Yalom, 2005, dalam Varcarolis & Halter (2006). Supportive therapy can also be performed on families who have chronic diseases such as diabetes, kidney failure, and can also be done on clients with mental disorders.

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Objective Structured Clinical Examination for evaluation Psychiatric Nursing Performance in Nursing Students

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Keywords: Objective Structured Clinical Examination, Psychiatric Nursing Performance, Nursing student

The purpose of this descriptive research study was to examine the outcome of the Objective Structured Clinical Examination (OSCE) on nursing students' performances in psychiatric nursing area. The participants in this study were 62 of 4th year nursing students from Faculty of Nursing, Ubon Ratchathani University, Thailand, in academic year 2017. Purposive sampling was used to recruit population. The research instruments were 1) the OSCE model, 2) the perception on psychiatric nursing performance questionnaires and 3) the opinion on OSCE questionnaires. Descriptive statistics were used for data analysis. The result found that most of nursing students passed the OSCE test. Total 80.65% passed OSCE

in the component of therapeutic relationship skill and 91.94% passed the test in the section of mental health problems screening skill. Nursing students had a good level of perception on psychiatric nursing performances. The highest score was the perception on psychiatric nursing practice ($\bar{x}=3.88$ SD = .61) and the lowest score was the perception on mental health screening skill ($\bar{x}=3.70$ SD = .65).

From this research showed that OSCE helps to distinguish nursing students' skills such as therapeutic relationship skill and mental health screening and assessment skill. Accordingly, educational institutions should promote to apply OSCE in all practicum subjects. The OSCE assists nursing students to gain self-perception on nursing skills which can lead to improve their nursing performances.

1. From the part of psychiatric nursing performances presented that the majority of nursing students had a good skill on therapeutic relationship by passing the OSEC test at score 80-90% and a few students had a score more than 90% . As a result, OSCE helped students

to be more confident in therapeutic relationship skill and this will lead to meet the patient satisfactions. In the skill of mental health screening and assessment found that most of students passed the OSCE as well. If nursing students have a good clinical practice skills, they will be able to facilitate patient on their problem as each patient has a different problems [11] [12] [13]. For the minority nursing students who fail the OSCE found that several reasons caused them to fail the test such as lack of confidence in practice skill, stress and nervous.

All causes that mentioned before can impact on decision-making, critical thinking, and judgment in nursing practice [11]. Nevertheless, students will gain more experiences and learn to develop their own diminished points.

2. Nursing students' opinion on OSCE displayed that nursing students had an opinion on OSCE at a good level ($\bar{x}=3.87$ S.D.= .55). The highest score was the benefits from OSCE ($\bar{x}=3.93$ S.D.= .55) following by the processes of OSCE ($\bar{x}=3.91$, S.D.= .56) and the OSCE preparation was the lowest part ($\bar{x}=3.78$ S.D.= .54).

A good quality of OSCE model is suitable to use for evaluation nursing students' skills. Correlated with the studies presented that students were satisfied on OSCE at a high level therefore, OSCE is suitable to use for evaluation learning outcomes in nursing field [14] [15].

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THE EFFECT OF AROMATHERAPY MASSAGE ON SLEEP QUALITY OF CANCER PATIENTS

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Keywords: aromatherapy massage, cancer, sleep quality

The inability to have a good quality of sleep can increase the risk of cancer to be more aggressive. This condition occurs because the immune system is disturbed, thus the ability of the immune to control the cancer cells is reduced. This research is aimed to determine the effect of aromatherapy massage on sleep quality of the cancer patients. This research is a quantitative research with quasi experimental design by using pre- and post-test method without control group. The sample of the research is 15 respondents that were chosen by using consecutive sampling technique. The sleep quality measured by using a PSQI (The Pittsburgh sleep quality index) questionnaire. The result showed that there was a decrease score of sleep quality after the aromatherapy massage with the probability value of 0.0001 (p value <0.05). The decline score of sleep quality shows the increase in the quality of sleep of cancer patient. Thus, it could be concluded that there was an effect of aromatherapy massage on sleep quality of cancer patients. Based on this result it is expected that aromatherapy massage is recommended as an independent nursing intervention in healthcare services to improve the sleep quality of the cancer patients.

Cancer is one of the most feared diseases by the societies, not only because the treatment requires a lot of costs but also cancer is a major cause of death. Cancer is a disease with an unknown cause, but certain factors are identified as having implications in the carcinogenic process. These factors are viruses, physical agents, chemical agents, genetic or hereditary factors, food factors, and hormonal agents. Experts estimate that 40% of cancers can be prevented by reducing the risk factors of the cancer (Smeltzer & Bare, 2002).

It is estimated that nearly 45% of cancer patients experienced sleep disturbance, almost three times higher than general population. The physiological sources of sleep disturbance are treatment side effects, tumor development, thermoregulation disorders, and changes in system functions such as the digestive system. In

addition, the development of disease can cause sleep disorders through symptoms that appear. For example, lung cancer can cause respiratory problems such as airway obstruction and dyspnea, whereas tumor development in prostate cancer can result in genitourinary changes that lead to sleep-wake patterns due to frequent urination (National Cancer Institute, 2010).

Sleep is believed to have contribution on the physiological and psychological recovery process. Sleep is a time of body repairment, during sleep the body releases growth hormone to repair and renew epithelial cells and special cells such as brain cells (Potter & Perry, 2012). Sleep can restore normal levels of activity and balance between parts of the nervous system. Sleep is important to increase protein synthesis in the repairment process (Kozier, 2011). Protein synthesis and cell division of tissue renewal occur during rest and sleep (Oswald, 1984 in Potter & Perry, 2012).

Cancer patients need a good quality of sleep to increase endurance and reduce cancer cell aggressiveness. There is no clear definition of sleep quality. The research showed that a good quality of sleep is sleep which can decrease fatigue, create a refreshed and restored feeling after sleep, not waking up during a night sleep, and no sleepiness during the day (Hellstrom, 2013).

Berger (2005) stated that there are 4 instruments that can be used to measure sleep quality in patients with cancer, such as Pittsburgh Sleep Quality Index, sleep diary, sleep scale, and Insomnia Severity Index.

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THE BULLYING EVENTS FACED BY STUDENTS IN CLINICAL SETTING

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Keywords: Nursing Students, Bullying Behaviors, Clinical Setting, Students Final Years

For the long time, bullying has been part in nursing. Some people think this is a norm from generation to generation in nursing, and that is exactly wrong. Nursing students is one of the victims of bullying behavior in the clinical setting. The effect bullying will influence their enthusiasm and motivation of learning practice which can ultimately affect the provision of nursing care to patients. This study to determine the incidence of bullying experienced by nursing students in the clinical setting. This research is a cross-sectional survey design. The respondents were nursing students in the final year, with total number 98 nursing students. Data collection using questionnaires and analyzed using univariate analysis. The results half of respondents, 34.7% experienced bullying, 32.7% were ignored when practicing. The sources of bullying was reported 25.5% by nurses and 18.5% done by nursing staff. The effect bullying for nursing students such as feel upset, nervous, angry, confused and worried. 60% of nursing students never reported bullying, and 70 assumed that bullying cannot be prevented. The conclusion study indicates the respondents were exposed to bullying. Nursing students must be aware of bullying behaviour and to speak up and encourage active learning to deal with the situation

Bullying is the global phenomenon and a universal problem, regardless of age or gender, when a person misuses his power to hurt others then bullying happens, so important to identification the experiences of bullying of nursing students on clinical setting. This study findings half of the respondents had experienced bullying. These result consistent with several of research who found that majority students reported experiencing negative behaviors, recognized as bullying behaviors in the clinical setting (Effendi, 2016; Clark et al., 2012). Consistent with early research who identified that

students had an experience some form of bullying while clinical setting (Ferns & Meerebeau, 2008; Foster et al., 2004). When nursing students entering the nursing area in the clinic like the hospital, they face new situations that differ greatly from the atmosphere on campus, the average nursing students is so young with the lack of knowledge and experience makes them easy to become victims of bullying. Nursing students encounter bullying behavior in baccalaureate nursing schools which leave them feeling powerless and frustrated and create a hostile environment, beside that students have lower levels of social support and higher psychological demand for being in the learning role and having only temporary bonds with specific nursing units work and staff (Magnavita & Heponiemi, 2011), hostile environment are not conducive to learning and jeopardise student's ability to meet their full potential in the clinical setting (Jackson et al., 2011). There are evident that nurses of younger age with less experience have a higher probability of experiencing bullying (Koh, 2016). Based on research in Jordan there are characteristic of the victim of bullying as having low self-esteem, talking or sounding different from others, shy, and having no friends (Al Ali, Gharaibeh, Masadeh, 2019).

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Home Care Quality Indicators for Stroke Survivor (HQI-SS): an investigation on domain development, content validity, reliability dan construct validity in Indonesia

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Keywords: service quality, indicators of quality, data collection, validity, home care, stroke

Background: Home care is an alternative long-term care for stroke patients that is suitable to be applied in Indonesia. It is more effective and efficient. The purpose of this study was to verify the construct validity of home care quality indicators.

Method: Confirmatory factor analysis was carried out on data collected on 350 respondents. Loading factor > 0.3 was used as a cut of point for validity test.

Results: Based on the value of loading factors, 62 indicators spread in 10 domains were declared valid and 5 indicators were invalid.

Conclusion: This study successfully tempt the validity of home care quality indicators in stroke patients in Indonesia.

The results in this study are in line with the guidelines of the National Institute of Neurological Disorders and Stroke that post-stroke rehabilitation programs must involve health workers consisting of doctors, rehabilitation nurses, physical therapists, occupational therapists, recreational therapists, speech therapists, vocational therapists and psychologists with their roles respectively (National Institute of Neurological Disorders and Stroke, 2018).

According to (National Institute of Neurological Disorders and Stroke, 2018) specialists do not really have to be involved in home care services. The neurologist is more appropriate to be the leader of the acute stroke care team at the hospital, but can also be involved as a long-term rehabilitation team.

b.Document domain

The indicators of availability of adverse event reporting forms of treatments performed are declared invalid. The researcher analyzed this as a result of very long indicator sentences, and the use of foreign terms, adverse events, which made it difficult for respondents to understand and provide assessment. This finding contrasts with a retrospective cohort study in Canada (Doran et al., 2013) that aims to detect adverse events in home care settings with instruments The Resident Assessment Instrument for Home care (RAI-HC). Doran study showed that the instrument for assessing home care quality should contain indicators that are able to detect adverse events in home care services.

c.Domain of professional development

The domain of professional development is considered very important, because as a direct health care provider at home, home care officers must be skillfull prepared through training to become professional officers. Research by Kosteniuk et al. stated that most of the home care officers in charge which fulfilling the daily needs of patients mostly untrained. So the provision of education in the form of workshops, case presentations, seminars and lectures (face to face) is in great demand by home care service providers (Kosteniuk et al., 2016).

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Javanese Women's Perception of Husband's Support in Women Reproductive Health

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Keywords: Women perception, husbands support, reproductive.

The husband's involvement in reproductive health is a complex process of social and behavioral change. The role of men in women's health in Indonesia is felt to be very low for various reasons that have taken root in Indonesian society which tends to be patriarchal. This descriptive study aimed to describe the women's perceptions towards husband's support in making decisions related to women's reproductive health in 105 childbearing married women aged 15-49, in Public Health Center 1, Bantul, Yogyakarta. Women's Perception of Males Involvement in Maternal Healthcare Questionnaire was modified and validated to collect the women perception based on health condition, health services, and financial status. Purposive sampling technique was used in this study. The result shows that majority of the women agree that decision making should be done by both husband and wife (99%). Most women (63.8%) believe that selection of health care facilities should be considered with the completeness of the medical services needed and the comfortable place (84.8%). The recommendation from this study is position equality and status between men and women in decision making. Therefore, women are encouraged to be more courageous in expressing their opinions as a form of their involvement in decision making of their health.

The majority of respondents in this study are between the ages of 30-49 years for around 63 respondents, some of them are women with an age range between 15-19 years approximately 3 (2.9%). Similar to the study of Suyami (2017) who used productive age women as the respondents, indicating that the age of the majority of respondents involved are women in the age range of 26-45 years. This is because the age of women is dominated by ages in the range of 30-49 years. The most marriage age of the respondent is between 0 and 5 years of marriage, which are 43 respondents. The majority of

respondents are Moslem, with a total of 102 respondents. This is because Indonesian citizens are dominated by Muslim religion. Muslim is a religion with the highest number of people in Indonesia. This statement is supported by the US Commission on International Religious Freedom (2017) and Asep et al. (2010) which states that Indonesia is the country with the largest Muslim population.

Respondents in this study had varied levels of education, including elementary, junior or middle, high school, Diploma (D3), Bachelor (S1), and Master degree (S2). More than half respondents are high school graduates with a total of 58 respondents, while respondents with junior high school education are around 26 respondents. Moreover, there are 3 people for respondents with a Masters education. This data is supported by Asep et al. (2010) who found the results of an education level survey in Indonesia and found data that around 69% of Indonesian citizens had high school education. Another supportive study is the results study from Afsah (2015), stating that of 384 respondents, the majority of respondents (43%) have high school education.

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COMBINATION OF THOUGHT STOPPING THERAPY AND PROGRESSIVE MUSCLE RELAXATION TO REDUCE ANXIETY

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Keywords: proceedings; template; Asian Regional Conference

This MS-Word file contains instructions about the Clients with physical illness tend to experience anxiety and the condition can worsen their physical condition. In general hospital nursing intervention still, focus the physical problems and less attention the psychological problems. The aim of this study was to determine the effect of thought stopping therapy and, progressive muscle relaxation therapy for the client with anxiety. The method is pre-post experimental. A total of 36 anxiety adult clients with physical illness participated in this study, had intervention: thought stopping therapy and progressive muscle relaxation which is 3-4 times a meeting. The analysis was conducted on the signs and symptoms of anxiety clients before and after the nursing intervention. The results of nursing intervention showed a decrease in signs and symptoms of anxiety on all the responses which include cognitive, affective, physiological, behavioral and social. The most decreased is the physiological response. This intervention is recommended to overcome anxiety in clients.

The combination of thought stopping therapy is done to overcome the inability to manage negative thoughts, especially in situational conditions. Research in line with Supriatin's, Keliat, Nuraeni and Susanti (2010) that a combination of thought stopping therapy and progressive muscle relaxation is recommended for handling anxiety in the general hospital setting. The results obtained were a significant decrease in physiological, cognitive, behavioral and affective responses to anxiety clients. Another study conducted by

Pasaribu, Keliat, and Wardani (2012) that giving thought stopping therapy to cancer clients at the Dharmais cancer hospital in Jakarta was able to reduce signs and symptoms of anxiety and improve the ability to control client's negative thoughts. Thought stopping therapy is effective in reducing stress levels in clients and families during treatment (Naikare et al, 2015). Stress levels during treatment can trigger anxiety in clients with physical illness. Implementation of thought stopping therapy by deciding the negative automatic thoughts that interfere, thoughts that make anxiety or unwanted thoughts. The ability that must be achieved by the client is that the client is able to control the disturbing mind because if it is not handled properly it can reduce client productivity and psychological discomfort so that it can cause maladaptive behavior

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Development of Online OSCE Prototype for OSCE in School of Nursing: Lesson Learned

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Keywords: online, OSCE, Objective Structured Clinical Examination, School of Nursing

Conventionally, paper is used for scoring of Objectives Structured Clinical Examination (OSCE). This paper-based system is not only time consuming, but also high in possibility of error, subjective, and not effective. The objective of this paper was to discuss the development of Online OSCE (ON-OSCE) application prototype for scoring OSCE. The ON-OSCE was developed by using prototype model consisting 3 phases: (1) analysis the drawbacks of paper-based assessment and the need to develop online-based scoring system, (2) design the ON-OSCE system, and (3) implementation, evaluation and feedback of ON-OSCE. The second phase was the most challenging phase because it must accommodate the weakness of paper-based system and must cover the accuracy of score. Before the ON-OSCE can be implemented, the subject coordinator ensures the checklist that is used to measure the skill competency is valid, reliable, and integrate the additional values of institution. The fixed checklist is entered into the system by administrator. After the checklist is ready, the administrator inserts the list of students who will be assessed. During the OSCE, the examiner observes the students and uses the tablets or PC to enter the score directly. While the examiner finished the scoring process, the result of the observed student will directly come out in the tablet or PC. The result for all of students can be downloaded and stored that can be used to score the overall student achievement in nursing skill practicum. The ON-OSCE will enable to reduce the time to score, improve the accuracy and objectivity, reduce paper use, and improve the examiners and students' 'satisfaction. ON-OSCE can be used in regular OSCE as long as the institutions have good internet connection, hardware (tablet or PC), valid skill checklists, and well-trained examiners.

In this last stage, the coordinator and co-coordinator review the result of OSCE. They can use the feedback to improve the student's performance and retrieve the data form the ON-OSCE to analyze what skills that most students passed or failed.

Pre-OSCE required quite complex preparation, however

the rest stages are simpler. The similar result can be found in previous study. Luimes and Labrecque (2018) found that eOSCE required some time to input schedules and checklist into the program, less set-up time was required to input data when the team gained experience using eOSCE. Other previous study also found that eOSCE required pre-examination preparation and challenges for examiners especially for those who not familiar and comfortable using technology (Snodgrass, Ashby, Rivett, & Russell, 2014).

During the OSCE, the concern about the possibility of device failure or connection problems are exist. Therefore, the paper-based or excel form of checklist is still prepared as anticipation strategy. The paper-based form as a backup is recommended in using electronic assessment as a safeguard (Currie, Sinha, Thomson, Cleland, & Denison, 2017; Luimes & Labrecque, 2018).

The most benefit of ON-OSCE is time-saving. As other previous study found, the automaticity of the system greatly decrease the time for scoring (Currie et al., 2017; Luimes & Labrecque, 2018; Meskell et al., 2015; Onwudiegwu, 2018; Snodgrass et al., 2014). Additional benefit including the big data saving and analysis that can be used to further improve the student's performance (Meskell et al., 2015).

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Knowledge and Attitudes Towards People with Dementia among General Population in Yogyakarta

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Keywords: attitude, dementia, knowledge, general population

Dementia has become the leading cause of disability in elderly and contributes to the care burden in many countries, including Indonesia. The family and community play the key role in caring and supporting dementia patients. Their knowledge about dementia and attitudes towards dementia patients will impact on the quality of care, but studies on this are scarce in Indonesia. This study aimed to investigate the knowledge and attitudes towards people with dementia among general population in Yogyakarta. This study was a cross sectional study by using questionnaire survey. 210 people from across Yogyakarta attending a free seminar about dementia held by Alzheimer Indonesia in Yogyakarta, Indonesia. The data were collected using the Alzheimer's Disease Knowledge Scale (ADKS), Bryan's Dementia Attitudes Scale (DAS), and also the demographic questionnaire. The result of the study shows that the overall AD knowledge score of the participants was low compared with scores in a similar study ($M = 17.17$ out of 30 $SD \pm 2,9$, $n = 210$). Statistically, age was the only variable that showed a significance in correlation to attitude while knowledge about dementia did not. It is suggested to include education about dementia in the education curriculum since the early stage.

More than half of ADKS questions could be answered correctly by over four-fifths percent of respondents. However, the public's knowledge about dementia in this study was lower than the other study ($M = 17.17$, $SD = 2.91$). The similar study by Carpenter et al. (2011) found that older adults ($M = 24.1$), AD caregivers ($M = 22.7$), and students ($M = 20.1$) have better knowledge. While, systematic review in 40 articles about the public's knowledge of AD and dementia shows that they have poor to very limited level of knowledge in almost half of

the articles (Cahill et al., 2015). There were misconception in the public's understanding about decline of memory in the elderly, which it is a normal part of aging and non-preventable (Cahill et al., 2015; Cations et al., 2018). This understanding can deteriorate the awareness to get knowledge about dementia. Lack of knowledge and skills to provide care of people with dementia can be the factors that improve care provider's (family and unprofessional caregiver) stress and poor quality of life. It has also negative impact on health, both for care provider and people with dementia (Campable as cited in Bond et al., 2016; Wright et al., as cited in Bond et al., 2016).

Bryan's DAS score obtained in this research indicates that general population attitudes towards AD patients were mostly pessimistic toward people with dementia ($M = 11.30$; $SD = 2.55$; $n = 203$). However, this results was still arguable since the mean score of pessimistic was nearly similar with this factor ($M = 10.58$ $SD = 2.46$).

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Integration of Islamic Teachings and Health Belief Models in Sexual education for Teenagers

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Keywords: Health Belief Model; Islamic Health Belief Model; Islamic Sexual Education

Sexual behavior has been a big issue since decades ago. It becomes problem worldwide. The negative sexual behavior followed by many other problems such as sexually transmitted infection (STI), unwanted pregnancies, teenage pregnancies, cervical cancer, LGBT, etc. The problem is not decrease, but the trend is increase time to time. Health Belief Model predicts a persons reasons for making prevention efforts, screening, or controlling his health. In this concept there are concepts of vulnerability, seriousness of the disease, advantages and obstacles of a behavior, cues to act and abilities of self. Islam teaches to always maintain health. The various kinds of worship ordered in Islam, ultimately related to health not only physically, but also spiritually. The combination of the concepts will form a more robust building for optimal public health. The purpose of this paper is to provide another view of the Health Belief Model, namely by incorporating Islamic teachings into the components of the Health Belief Model especially on sexual education for teenagers. So that it is expected that health workers can have reinforcement from the side of Islam in carrying out their duties in increasing the degree of public heath..

Health Belief Model Key Elements and tha relevance in Islamic value for sexuality education for teenage

There are five Key elements in Health Belief Model. Those are perceived susceptibility, perceived severity, perceived benefit cues to action and self-efficacy. Perceived susceptibility means belief that one will has risk or to get sick. That will bring people know what is

the risk and which level of the risk. It also brings people to understand the risk based on characters and the behavior. Then people will put the risk more consistent because of the existence of individual risk.

The risk of negative sexuality behavior has been known. Those are sexual abuse, sexual harassment, sexuality transmitted disease, unwanted pregnancy, demoralization, adolescence pregnancy, etc (Conference and Health, 2009; Curtis, 2015; Holzner and Oetomo, 2004; Iyer and Aggleton, 2015; Lowe, 2010; Shirur, 2003). In Islam, the consequence are not merely those happened in this life, but also in here after life. Teenagers have to consider every action will be monitored and will have consequences including their sexuality life. Islam put the sexuality life as a high value. While the sexuality life implemented in proper way, which mean along with the Islam rules, the action considered as worship. While in the opposite, while it does not obey the Islamic rules, it consider as bad deeds and will give negative effect, in here and here after life (Widanarti and Nashori, 2015; Zaim, 2015).

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THE EFFECTIVENESS OF THE SERVICAL CANCER PREVENTION GUIDELINE BOOK ON WOMEN PARTICIPATION OF VISUAL ACETIC ACID INSPECTION EXAMINATION (IVA)

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Keywords: Guidebook, IVA Participation

Cervical cancer caused by infection with Human Papiloma Virus (HPV) is one type of cancer which has high prevalence and belongs the second leading cause of death for women in the world after breast cancer. It is estimated that every day 40-45 new cases appear and around 20-25 people die due to cervical cancer. To prevent pre-cancerous lesions gradually and develop into invasive cancer, primary prevention needs to be done through the provision of health promotion and guidebook on early detection of cervical cancer. This detection can use the easiest, cheapest and affordable method, namely inspection of Visual Acetate (IVA) Inspection. In Kudus district the coverage of early detection of cervical cancer by the IVA method is only 2% of the number of women aged 30-50 years. This study aims to determine the effectiveness of health promotion and guidebook on the early detection of cervical cancer as an effort to participate in women's IVA examination. This study was quasi-experimental with the design of the pretest posttest non equivalent control group, with a sample of 66 respondents divided into two groups taken using consecutive sampling technique. Later on, the data were analyzed using McNemar and Chi Square tests. The results showed the results of the McNemar test on knowledge in the intervention group had p value of 0.003 while in the control group had p value of 0.630. In the intervention group the participation of women doing IVA examination had a p value of 0.004 and in the control group participation of women conducting IVA examinations had p value of 0.500. Chi Square test results for comparison between the intervention group and the control group had p value of 0.003. Providing health promotion and guidebook for early detection of cervical cancer is very effective on increasing the participation of women in Payaman village in Kudus Regency of IVA examination. There were differences in women's participation in IVA

examinations between the intervention group and the control group after being given health promotion and standard books on early detection of cervical cancer.

1. Based on Characteristics Based on the results of the study it was known that the intervention group and the control group were respondents with the reproductive age category. When associated with health knowledge, reproductive age has the maturity to make decisions in attitudes and actions for prevention of an illness (Damailia & Oktavia, 2015). The risk for cervical cancer is higher in women of unproductive age of 36-55 years, but now there has been an increase in the number of women of reproductive age who experience abnormal cells of the body so that before the age of 30 years it is recommended to detect this cervical (Pangesti et al, 2012).

The level of education in the respondents is known to be the most respondents with high school education. With the level of secondary education, one will more easily digest a new experience and knowledge (Aisah et al, 2010). The lower the level of individual education, the lower the interest in preventing a disease (Rahma & Prabandari, 2011).

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RESILIENCE IN CHILDREN OF NATURAL DISASTER VICTIMS: A LITERATURE REVIEW

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Keywords: resilience, children, natural disaster

Background: A natural disaster is a natural event that can cause environmental damage, human casualties, property losses, and psychological impacts. This psychological impact is important for us to discuss, especially for children. Children need the ability to rise from the difficulties that they experience a post-natural disaster. **Purpose:** This review paper to analyze the level of resilience in children affected by natural disasters. **Methods:** This article searches used to study the literature approach from several ProQuest, PubMed, ScienceDirect, and Google Scholar databases using keywords "Resilience OR resiliency OR resilient AND youth OR Adolescent OR Child AND natural disasters". Based on the screening process of 3,369,259 journals, ten articles were obtained with the selection of inclusion criteria. **Results:** Find 3 themes, namely the important to confirm the resilience and early recognition about mental disorder post-disaster; factors that influence the resilience of children after natural disasters, including mental, spiritual, physical, ecological, environmental, psychological, emotional factors and external factors involving social, both family support and safe community; and provision of Youth Leadership Program (YLP) and Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) interventions to increase resilience. **Conclusion:** Factors of social support that are good from family, community, and school are important elements in the formation of resilience in children post-natural disaster.

Supporting factors for the formation of resilience in children include mental health, spiritual, physical, social, ecological, environmental, psychological and emotional factors (Mohammadinia et al., 2018b, 2018a). Research shows children have significant characteristics and abilities in disaster risk reduction. The psychological, emotional, cognitive, and mental components cover a

large area and are important for the resilience of children in disasters. Research says mental and psychological health are important components that affect children's resilience (Mohammadinia et al., 2018b). In addition, there are other external factors, namely the importance of social support for the resilience of children after natural disasters. Social support can come from community, family and school support. Children view the community as a source of strength, and communities have the potential to function effectively to help members adapt successfully after a disaster (Norris et al., 2008). The role of family, friends, and society supports children to be able to use their capacity and ability to overcome difficulties (Husni Rahiem et al., 2018). In addition to communities and families, schools can also be used as psychological services, namely as a place of consultation and mental health services that can support child resilience (Brown et al., 2017; Osofsky and Osofsky, 2018; Ying et al., 2016).

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OPTIMIZATION OF MHealth IMPLEMENTATION AS A PREVENTION MEASUREMENT FOR PATIENTS WITH PATIENTS WITH CARDIOVASCULAR DISEASES: A LITERATURE REVIEW

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Keywords: Health, smartphone-based applications, behavior change, lifestyle changes, quality of life cardiovascular Disease, cardiac rehabilitation

Background: Cardiovascular disease is one of the major health problems and the number one cause of death in the world. Mhealth (mobile health) has the potential to improve prevention of disease recurrence by being given continuous post-treatment interventions at the hospital. Mhealth is designed to monitor activities carried out by patients and nurses who can monitor patients' health status remotely during the recovery process. Therefore, there is a need for the health team's alertness in preventing recurrence in cardiovascular disease. The purpose of paper this is to analyze articles that examine the application of MHealth as a prevention effort in patients with cardiovascular disease.

Method : The preparation of this literature review uses various databases including EBSCO, Google Scholar, Science Direct, PubMed, and Sage Journal that have been conducted from December 2018 until January 2019. In total, this paper consists of seven journals that are reviewed with predetermined keywords : Four journals including quantitative methods (experimental study design), one qualitative exploration journal, one journal on the mixed-methods feasibility study and one journal with the systematic review method. Then carried out screening was based on established inclusion and exclusion criteria

Results: Nine articles reviewed found an important component affecting mobile health as an effort to prevent relapse in its contents was content on features Mhealth(health education, diet, physical activity, medication compliance and smoking).

Conclusion: The effect of mobile health can change the

behavior of healthy life after hospital care and prevent recurrence in patients with cardiovascular disease, with long-distance health services health workers can easily monitor patient health status

Medicine Compliance with taking medication is as a drug-consuming behavior which is an agreement between patients and doctors in the post-treatment recovery process. In reviewing or assessing medication adherence, patients can get from a variety of methods, in this study, doctors can monitor the need to take the patient's medication remotely. Mhealth provides some content about indications or contraindications to medications taken, medication schedule and schedule of visits. (8)

Diet SaltSwitch smartphone application is effective in supporting people suffering from cardiovascular disease purchasing low-salt foods. Larger trials with longer follow-up are needed to determine the effect on blood pressure. (6)

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Effect Of Diabetes Mellitus Self Management Education Toward Self Care Behavior Of Type 2 Dm Patients In Working Area Of Ngawen Primary Health Center

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Keywords : Type 2 Diabetes Mellitus, Diabetes Self Management Education, Self Care Behavior

Background : Diabetes has become one of the main threats to human health in the 21st century, the development of society in the present causes changes such as eating patterns, lack of physical activity and unhealthy behavior contribute to the causes of various diseases, one of them is Diabetes Mellitus (DM). Management of type 2 DM is expected to be able to prevent and reduce acute and chronic complications, especially by applying self care behavior. Diabetes Self Management Education (DSME) can facilitate patients in terms of knowledge, skills, and ability to prevent further complications.

Aims : Knowing the effectiveness of DSME on Behavior Self Care for Type 2 DM patients

Methodology : The design of the study will be conducted using quasi-experimental with a non-

equivalent control group design. In this design, the intervention group and the control group were pretest (O1) and followed by giving DSME 4 sessions (X) in the intervention group. After 5 weeks posttest (O2) was performed in both groups. The sample to be used is a non probability sampling study with a purposive sampling method to determine the research subjects. Based on the calculation of the sample formula, the number of samples used in this study were 27 respondents for the intervention group and 27 respondents for the control group.

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FACTORS CONTRIBUTING IN DIABETIC ULCUS PREVENTION BEHAVIOR IN PATI ABSTRACT

Sri Karyati, Sukarmin

Keywords: DM, foot ulcer, prevention

DM (Diabetes Mellitus) is a non-communicable disease which is the fourth priority in the world because in addition to its increasing number it is also a cause of disability. Consistently high blood glucose levels can cause serious diseases that affect the heart and blood vessels, eyes, kidneys, and nerves. People with DM also have a higher risk of infection. One of the complications of DM that is often encountered is diabetic foot, which can manifest as ulcers, gangrene and Charcot arthropathy. About 15% of people with DM in the course of their disease will experience complications of diabetic foot ulcers. The purpose of this study was to determine the factors that contributed to the behavior of diabetic ulcer prevention in Pati. This study was a correlational observation study with a sample of 106 DM patients in

Pati taken randomly. Bivariate analysis using Chi square test and multivariate analysis using multinomial logistic regression test. The results of the study showed no significant association between age, occupation, gender, and the behavior of diabetic ulcer prevention in Pati ($p = 0.080, 0.223, 0.446$). There is a significant relationship between Education, income, duration of suffering, knowledge, and behavior of prevention of diabetic ulcers in Pati ($p = 0,000, 0,000, 0,000, 0,000$). The factors that contribute to the behavior of prevention of diabetic ulcers in Pati in sequence are the duration of suffering from DM (38,160), education level (18,035), knowledge (0,499) and income (0,156).

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The Influence Of Evidence Based Practice To Improve Critical Thinking

Dina alfiana ikhwani

Keywords: Evidence based practice, Critical Thinking

Background: Evidence based practice is utilizing of the empirical evidence such as research, clinical expertise, and patient preference. Learning EBP with group discussion approach can be strategic to improve the critical thinking. The purpose of this research was to analyze the influence of the implementation of evidence based practice to improving critical thinking in undergraduate student.

Method: The research method was used Quasy Eksperiment pre test and post test without control group design. 61 responden with total sampling were given intervention EBP learning.

Result : The result of statistical tests with wilcoxon showed there are significant differences in critical thinking students before and after the intervention. The critical thinking was significantly different (with the

respective results p value $< 0,05$).

Conclusion: The application of EBP is significantly to improve critical thinking. It is expected that EBP learning to integrated into curriculum in nursing education.

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Description of Professional Behaviours Value of Nursing Student Level II Diploma Program AKPER Nursing Foundation Yogyakarta

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Keywords: Value of Professional Behavior, Student, Nursing Diploma Program

Background: Professional behaviors are one of the elements that nurse students must have in addition to clinical knowledge and skills, to become professional nurses when they have been in the workplace and nursing professionalism for the present is getting better.

The purpose of this study: This study to determine the description of the professional behavior of students in the second level of DIY nursing program AKPER YKY.

Research Method: This research use descriptive research method. The sampling technique in this study used incidental sampling amounted to 72 active students. Data were collected using Shieffiedt Peer Review Assessment (SPRAT) questionnaire with self assessment technique consisting of 23 Likert-scale questions.

Results: The results of the study showed that the value of professional behaviors of nursing respondents consisted of low category 5 students, medium category 1 students, high category 33 students, very high category 33 students.

Conclusion: From the results of professional behaviour

values can be used as an evaluation for institutions and students on the value of professional behaviour owned, and used as input for the preparation of curriculum about the value of professional behavior.

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Sistematic Review: Relationship between Pregnant Women Weight, Fetal Weight, Age at Pregnancy, Gravida Status with Birth Weight

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Keywords: maternal weight, fetal weight, pregnancy

Background : A person's nutritional condition is influenced by her nutritional status during the pregnancy. In other words, the nutritional status of pregnant women is very influential on her health and as a predictor of pregnancy outcomes for mothers and nutritional status of newborns (Senbanjo et al, 2013). This is due to fetal food intake. Fetal food intake can be through the umbilical cord that is connected to the mother's body (Indreswari

et al, 2008). We have to know that maternal and child health efforts are carried out to reduce mortality. One of them is obstructed fetal growth which must be known while the baby still in utero, so that the clinician can be more stringent in monitoring and planning the delivery method to reduce the risk of perinatal death. The increase in maternal weight during pregnancy is directly related to the weight of the baby and the risk of low birth weight increases with a lack of weight gain during

pregnancy. This shows a significant relationship between the increase in body weight of pregnant women and the weight of the baby born. (handayani, 2013). From several studies, it is still not known what factors most influence the birth weight of the baby, so in this study sistematic review was carried out as a strong first step for other researchers in developing this research.

Method : The method this research

h is a systematic review through journal reviews of the relationship between maternal weight, fetal weight, age at pregnancy, status of Gravida with birth weight

Result and Discussion : Based on the analysis of the article it was found about the relationship between maternal weight, fetal weight, gestational age, gravida status and birth weight. Several studies have reported an increased risk of low birth weight (LBW) with generally defined as women <20 years. The number of birth for women 35 years is increasing in some countries. Several mechanisms have been suggested to explain this. Biological mechanisms indicated that infant birth Low birth weight (LBW) from teenage mothers <20 years. Blood circulation to the cervix and also to the uterus in adolescents is still not perfect so this can interfere with the process of input nutrients from the mother to the fetus. Nutrition of pregnant adolescents also give the effect because adolescents still need nutrients , in the other hand nutrient have to be shared with the fetus but adult pregnant women who do not need nutrients for growth (Johanes, 2009 in Rahardjo et al, 2011). Biological factor are considered for teenage mothers because as risk for birth outcomes, some result from research support this. (Fraser, Brockert, & Ward, 1995; Chen, et al., 2007).

However, additional research shows that this difference does not exist among African-American women because of higher average exposure to social and environmental losses compared to whites (Geronimus, 1987; 1996). This explanation shows that unfavorable birth outcomes among teens compared to older mothers are the norm, from which African American mothers deviate as a result of lower socioeconomic status. The role of social loss in understanding the risks of compromised young mothers from birth outcomes is examined, especially those related to the selection of disadvantaged teenagers to give birth to children. Thus, the way the age of young mothers is associated with unfavorable birth outcomes is considered, both cross and in racial / ethnic groups

Conclusion : This study has not been able to find a relationship between the weight gain of pregnant women on the weight of the baby born. According to assumptions, this happens because there are still other factors that are not yet known exactly where these factors can affect the weight of the baby born. So the researcher can find immediately. **Keywords:** Pregnant Woman's Weight, Fetal Weight, Age at Pregnancy, Baby's Birth Weight

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The Children's Habit To Consume Snacks And Beverages In Kudus, Central Java

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Keywords: the children's habit, consume, snacks, beverages

Evidently 97.7% of children in Indonesia consume less vegetables and fruits. Children only eat the type of food they like such as snack and instant drinks. Some of those snacks sometimes contain microbes, additives and harmful substances such as formalin, borax, artificial coloring (Rhodamin B, Methanyl Yellow), flavor enhancer, artificial sweeteners which lead to several illness like typhoid (2.7%), diarrhea

(4.9%), hepatitis (1.9%), etc. This study aims to describe the consumption habits of food and beverages of children in Kudus Regency. This study was qualitative research with a phenomenological method.

This study, later on, was conducted from July to September 2018 in Kudus Regency involving two elementary schools consisting of 12 participants. In-depth interview was conducted to students, teachers,

food sellers and parents. The sampling technique used purposive sampling. Triangulation was done, among others, by digging information from students, food sellers, teachers and parents.

The result of this study stated that not all children were accustomed to have breakfast and they were not carried packed meal from home. Moreover, Schools did not have healthy canteens and were not used to washing hands cleanly. In fact, the children were not used to eat vegetables and fruit everyday and brought pocket money to buy snacks and beverages at school containing lots of sweeteners, artificial coloring, preservatives, borax, and flavor enhancer and some snacks are eaten using unhealthy sauces and spices. Teachers told the students not to buy unhealthy snacks and beverages, but they kept doing that secretly. Conclusion: the children habits

consuming unhealthy food and beverages must be immediately eradicated because it had the potential cause to nutritional disorders and health problems such as malnutrition, obesity and typhoid, sore throat, diarrhea etc.

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The Compliance of Hand Hygiene for Professional Nurses Student

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Keywords: hand hygiene, five moments, nurses students

Background: The first-line infection control strategy in hospitals is the application of five-moment for hand hygiene. This study aims to determine the compliance of five moment for hand hygiene for professional practice nurses student.

Method: This research was a quantitative descriptive study. The sampling method used total sampling with 183 respondents. The compliance of five moment hand hygiene was measured using an observation sheet. Data were analyzed using frequency distribution.

Results: The students who washed their hand before patient contact were 31%, and 69% student weren't. The student's compliance of hand hygiene on 2nd moment, before doing aseptic procedure, were 74%, 26% weren't obedient. The student's hand hygiene behaviour in 3rd moment, after body fluid exposure, were 98%. Students who washed their hand after patient contact were 100%, and 0% weren't. The student's hand

hygiene behaviour in 5rd moment, after contact with patient surroundings were 46%. **Conclusion:** The student compliance for hand hygiene is obtained at 4th moment and non-compliance is obtained at the 1st moment. The efforts to increase student compliance in five moment for hand hygiene need to be improved to support patient safety goals in hospital.

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Determining Nutritional And Health Habits Of Bajao People In Relation To Their Health Status: Basis For Health Education

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Keywords: Nutritional habits, Bajao, Health status

Healthy diet and physical activity are proven to be key to a good nutrition and significant for a healthy and long life which everybody aspire to have. Eating nutrient-rich foods and maintaining a healthy lifestyle is essential in all stages of life. This study determined the demographic profile, level of knowledge regarding treatment of common health concerns and the significant relationship in Bajao people nutritional habits in relation to their health status. The study made use of descriptive research design. Both standardized and self-made questionnaire were used to gather data. The study was conducted in Tambacan, Iligan City where Bajao people reside. The study utilized purposive sampling wherein a total of 150 respondents are selected based on the criteria necessary to answer the objectives of the study. The respondent should be at least 12 years old and recognized by the tribe leader as member of the Bajao community. Results revealed that there was no significant relationship between the health status of the respondents and their personal food intakes. Moreover, there was a significant association between their health habits and their health status. Lastly, there was no significant relationship between their level of knowledge and health status. The

study concluded that their nutritional habits cannot be a determining factor for their health status specifically risk for having diet-related health concerns, but health education could still create impact in regards with disease prevention and medical treatment awareness. Creation of significant awareness programs and activities focusing directly to Bajao people of Barangay Tambacan in Iligan City by the Local Government Unit and Non-Government Organizations are highly recommended.

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Influencing Of Parenting And Birth Order Correlated With School Phobia

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Keywords: parenting, birth order, school phobia

School phobia is not realistic fright constantly that usually happened on child which can disturbing pre school period. This study purposed to knew the relationship of parenting and birth order with school phobia. Analytic approach with correlation design was used. The Population was preschool aged parents in kindergarten of Dharma Wanita I in Gunungsari sub Baureno district Bojonegoro, as many as 36 participants was taken by simple random sampling. The data results were analyzed using Multiple

Linear Regression obtained significant correlation between parenting and school phobia ($p = 0,004$; $p < 0,05$) and significant correlation between birth order and school phobia ($p = 0,001$; $p < 0,05$). The Simultaneously analysis also obtained a significant correlation of parenting and birth order with school phobia ($p \text{ value} = 0.000$; $p < 0.05$) with $R \text{ square} = 0,460$, which meaning the power of parenting and birth order associated with school phobia occurrence was 46%, while 54% was explained by other variables that was

not examined. Parenting may influencing behavior and comprehension for children related with desire for school, while birth order related with experiences of parents and children's in dependency.

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In Effort To Improve Quality Of Nursing Services Through Community-Based Health Education For People With Hipertension : A Systematic Review

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Keywords: hypertension prevention and management, health education, community based programs

Essential hypertension is the most popular catastrophic case in Indonesia that referred from primary health services to hospitals. High number of morbidity and mortality caused by hypertension increase financial burden of the state for catastrophic diseases. The current effort of our government to prevent and control hypertension is by health promotion through KIE. However, the facts that hypertension prevention keep developing thus this would be a continuous global challenge for the professionals of health services. This is the reason why it's important to investigate interventions that could increase control the blood pressure. The aim of this systematic review is to gain best literatures about health education about the prevention of hypertension based on community that have potential strength to regenerate clinical practice recommendations to improve preventive and promotive efforts for hypertension. Method of this literature review was using systematic searching of electronic databases from Google and Pubmed by following keywords : Community based hypertension programs+journal, hypertension AND community-based health education, hypertension AND Community- Based Nutrition DASH, hypertension AND community based control

programs. Inclusion criterias of the study focused on community based education interventions for hypertension and has complete explanation about it whilst exclusion criteria of the study was all articles that older than the latest 10 years. 13 journals based on those criterias above chosen to proceed. Results of the study shows that all researches were done in developed countries and most of the articles were using quantitative methods. Community based health education for people with hypertension is an effort to help hypertension control programs. There are 4 (four) health interventions related to community based hypertension education program which are mass media campaign to reduce salt consumption, workshop programs through social volunteering or health activists, hypertension group education about dash and lifestyle then comprehensive hypertension prevention and promotive programs. Community based health education approaches through these interventions could be used to control the uncontrollable hypertension in the community. Multicomponent and multilevel cooperation as well as financially effective efforts to prevent, detect and managing hypertension could be gained by implementing all of these interventions.

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The Effect of Breathing and Range Of Motion (ROM) Exercise to Intradialysis Fatigue Level in Hemodialysis Unit of Dr. Adjidarmo Regional Public Hospital (RSUD Dr. Adjidarmo), Banten

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Keywords: fatigue, breathing exercise, ROM exercise, chronic renal failure, hemodialysis.

Fatigue is a condition of the patient's response that appears and is one of the nursing problems in patients receiving hemodialysis therapy. The purpose of this study is to determine the effect of breathing exercise and ROM exercise towards the decrease of fatigue level intradialysis in Hemodialysis unit at RSUD Dr. Adjidarmo Banten. The design of this study is Pre-Experimental Design, and the design used is the One Group Pretest Post-Test design with the number of samples of 28 respondents, and the measuring instruments used are Fatigue Severity Scale (FSS). Chi square is used as sample, with p value 0,001. The results of this study show a significant effect between breathing exercise and ROM exercise towards the decrease of fatigue level intradialysis (p value <0.05). This study

also shows a significant effect between confounding variables (they are age, education background and the length of undergoing hemodialysis) towards fatigue intradialysis. While between the confounding variables (they are gender and occupation) are not related to fatigue intradialysis.

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The Effect Of Semi Fowler Position On The Stability Of Breathing Pattern Among Asthma Patients At Ratu Zalecha Hospital Martapura

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Keywords: semi fowler, stability of breathing pattern, asthma

The case of asthma in South Kalimantan exceeds the national number (3.6% of 2.4%). The increasing of this case certainly requires rapid treatment so that airway obstruction does not occur suddenly and unexpectedly. Giving a semi fowler position, as one of the independent nursing interventions can reduce tightness because it can reduce the pressure on the abdomen and optimize the lung function. The purpose of this study was to determine the effect of giving semi-fowler position to the stability of the breath patterns of asthma patients at RatuZalecha Hospital Martapura. This study used a pre-experimental study design with 30 respondents, using simple random sampling technique. The intervention of semi-fowler position was given to the respondents when they were having shortness of breath, and observation sheets was used to assess

the stability of the breath pattern before and after the intervention was given. The Wilcoxon test was used for analysis with $\alpha = 0.05$. The results showed that the semi fowler position affected the stability of the breath pattern of asthma patients (0.00). The independent intervention of nurses with the provision of positions to asthma patients turned out to be very effective as one of non-pharmacological interventions.

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The Nurse Preparedness Experience In The Psychological Aspect Of Earthquake In Mutiara Sukma Mental Hospital West Nusa Tenggara Province

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Keywords: Preparedness, Psychological Aspects, Earthquakes

Background: This study provides an overview of the role of nurses in earthquake preparedness in the

Mental Hospital of Mutiara Sukma, West Nusa Tenggara province and provides information

regarding implementation strategies that can be carried out by health workers both in preparation and responding to earthquake disasters. Besides that, psychological aspects are very important that must be prepared by nurses in dealing with earthquake disasters, so as to prevent the psychological impact on both themselves and victims.

Objective: To explore the experience of nurse preparedness in the management of psychological aspects after the earthquake disaster and explore the factors that influence nurse preparedness in the management of psychological aspects after the earthquake.

Method: This type of research is a qualitative research with a descriptive explorative approach. Data is collected by in-depth interview methods and observation techniques then analyzed based on emerging themes. The number of samples was 5 participants.

Results: The results of this study indicate that the preparedness of 5 nurses at the Sukma Pearl Mental

Hospital in the province of West Nusa Tenggara was very satisfying.

Conclusion: In this study, most of the roles of nurses have carried out their duties and obligations properly, due to the preparation of the institution in preparation for the earthquake disaster. All participants have been provided with training in handling emergencies. Mental hospitals as health care centers at the top level in efforts to reduce earthquake risk must be prepared with planning supported by the role of nurses in disaster management.

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Effect Of Fasting On Mondays And Thursdays Towards Total Cholesterol Patients With Type 2 Diabetes Mellitus

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Keywords: Fasting on Mondays and Thursdays, Total Cholesterol Level, Type 2 Diabetes Mellitus

Introduction: The patients with type 2 Diabetes Mellitus who did not control their total cholesterol level properly ran the risk of various complications. Diet plan was important to prevent complications of the patients with Type 2 Diabetes Mellitus caused by hypercholesterolemia. Fasting on Mondays and Thursdays was appropriate with Sunnah of Prophet Muhammad SAW and potential for reducing the total cholesterol level of the patients with Type 2 Diabetes Mellitus.

Method: This study used Quasy-Experimental with pre-test and post-test control group design. This study was conducted on January-May 2016 in Kasihan, Bantul, Yogyakarta. The respondents consisted of 15

people in experimental group who were given intervention fasting every Monday and Thursday for one month with total sampling technique and 15 people in control group with standard treatment. The data was analyzed using Wilcoxon test and Independent T-Test with significance $p < 0.05$.

Results: The average of cholesterol level after intervention was 189.87 ± 21.52 in the experimental group and 223.33 ± 45.77 in the control group. There were significant differences in the total cholesterol level between experimental and control groups before and after having fasting on Mondays and Thursdays and it showed that the total cholesterol level of experimental group was lower than control group ($p = 0.033$).

Discussion: Fasting on Mondays and Thursdays effectively reduced the total cholesterol level of the patients with Type 2 Diabetes Mellitus. Nurses could suggest the Diabetes Mellitus patients having fasting on Mondays and Thursdays with guidance ahead

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Resilience Of Adolescent Victims Bullying: A Literature Review

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Keywords: resilience, adolescent, bullying

Background: Bullying behavior in adolescents in schools is increasing. Forms of bullying behavior are verbal, physical or through social media or cyberbullying. Resilience is the ability of individuals to be able to survive in an unfavorable situation so they can rise again.

Purpose: This article aims to identify, criticize and analyze research articles on the resilience of adolescent victims of bullying.

Method: Search articles through databases such as Google Scholar, Ebsco, Pubmed, Proquest, Clinical Key and JSTOR with keywords "adolescence" OR "adolescent" OR "children" OR "student" AND "resilience" OR "resiliency" OR "resilient" AND "bullying" OR "bully". The first phase of the search obtained 2,670,870 articles. The second phase is by selecting full-text articles and published in 2016 until 2018. The third phase is by selecting articles based on inclusion criteria. The fourth phase obtained 12 articles that met the inclusion criteria. Critical assessment of articles using CASP (Critical Appraisal System

Program).

Results: Adolescents who have low resilience are at high risk of experiencing bullying victims and adolescents who have high resilience are at low risk of experiencing bullying victims.

Conclusion: Adolescent resilience can be improved through family relationships, social relations, knowledge of resilience, individual empowerment and anti-bullying interventions at school.

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Optimization Of Mhealth Implementation As A Prevention Measurement For Patients With Patients With Cardiovascular Diseases: *A Literature Review*

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Keywords: : Health, smartphone-based applications, behavior change, lifestyle changes, quality of life cardiovascular Disease, cardiac rehabilitation

Background: Cardiovascular disease is one of the major health problems and the number one cause of death in the world. *Mhealth (mobile health)* has the potential to improve prevention of disease recurrence by being given continuous post-treatment interventions at the hospital. *Mhealth* is designed to monitor activities carried out by patients and nurses who can monitor patients' health status remotely during the recovery process. Therefore, there is a need for the health team's alertness in preventing recurrence in cardiovascular disease. The purpose of *paper* this is to analyze articles that examine the application of *MHealth* as a prevention effort in patients with cardiovascular disease.

Method : The preparation of this *literature review* uses various databases including EBSCO, Google Scholar, Science Direct, PubMed, and Sage Journal that have been conducted from December 2018 until January 2019. In total, this paper consists of seven journals that are reviewed with predetermined keywords : Four journals including quantitative methods (experimental study design), one qualitative exploration journal, one journal on the mixed-methods feasibility

study and one journal with the systematic review method. Then carried out *screening* was based on established inclusion and exclusion criteria

Results: Nine articles reviewed found an important component affecting *mobile health* as an effort to prevent relapse in its contents was content on features *Mhealth*(health education, diet, physical activity, medication compliance and smoking).

Conclusion: The effect of *mobile health* can change the behavior of healthy life after hospital care and prevent recurrence in patients with cardiovascular disease, with long-distance health services health workers can easily monitor patient health status

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The Implementation Of Practice Based Simulation To New Nurses Towards Self Confidence: A

Literature Review

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Keywords: Simulation, self confidence, new nurses

Background: To increase the services quality of nursing in hospitals, learning process (education and training) is needed by using facilities of clinical skills. It provides an ideal way for the development of learning and self confidence of nurses before entering the real world of work. The approach of problem based learning is the ability to use the method of simulation learning or Practice Based Simulation Model can increase the self confidence of new nurses.

Objective: Practice based simulation is expected to increase the self confidence of the new nurses.

Method: This research used Literature Review. Sources of research were taken from a number of databases. The search process was conducted in December 2018 through the databases of PubMed of 3,016 articles, Google Scholar of 13,500 articles, Science Direct of 3,466 articles, ProQuest of 256 articles by using keyword combinations of self confidence and practice based simulation and new graduates nursing. Of the total databases, only seven articles met the inclusion criteria.

Results: Based on the results of a literature review of

the seven articles, it showed that the implementation of the simulation method to new nurses could increase their self confidence. New nurses could be more independent, self determined, be able to perform nursing care, and be more patient when working.

Conclusion: The objective of this literature review is to obtain results that implementing practice based simulation can increase the self confidence of new nurses.

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Spiritual Reminiscence Group Therapy for Depression of Indonesian Elderly Living In Social Institution – A Literature Review

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Keywords: Depression, Elderly, Reminiscence Group Therapy, Spiritual

Impact caused by the aging process is the existence of health-related problems. Health-related problems experienced by the elderly are not only related to physical health but also mental health. Mental disorders occur in the elderly population with depression as the most common disorder. Elderly people to deal with depression need an intervention. One of nursing intervention that can be conducted in Indonesian elderly with depression is spiritual reminiscence group therapy. This article used a literature review method. The review themes are about definition, reasons, benefits, principles, and procedure of spiritual reminiscence group therapy. Furthermore, the results are also explanation about spiritual reminiscence group therapy that is included in community nursing intervention and roles of community nurse in the elderly with depression. In the end, spiritual reminiscence group therapy has proven effective in overcoming depression in the elderly. This therapy is

very possible to conduct for elderly in Indonesia. However, the research on spiritual reminiscence is still limited, especially in Indonesia. This literature review suggests to conduct future research about spiritual reminiscence group therapy in the Indonesian elderly with depression.

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Nursing Students Perception Towards Caring Behavior Of Clinical Instructor: A Literature Review

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Keywords: nursing student perception, caring behavior, clinical instructor

Background: The role of instructor is a crucial factor in determining the success of nursing students. The students understand that their instructor's caring behavior can make them more confident. Caring behavior always provides assistance to others holistically.

Objective: To determine the perception of nursing students on caring behavior of clinical instructor.

Method: This literature review used search engine of Google Scholar database, Science Direct and EBSCO. At the initial stage of the searching keyword: "Caring Instructor" AND "Nursing Students Perceptions" resulted 8 international articles published in 2014-2019 that met the inclusion and exclusion criteria.

Results: Based on the results of the literature review of the 8 articles, found that caring behavior of clinical instructor could be an indicator of how care students were when they enter the profession. The caring behavior of the clinical instructor had a positive impact on students and instructor. Students became more competent, felt helpful when experiencing

difficulties, more open, and had high learning motivation.

Conclusion: Nursing students always view their instructor as a role model in demonstrating professionalism in nursing, which can improve the caring behavior of their students, for caring behavior is a vital component in nursing education. Therefore, caring behavior is an element that the instructor needs to consider towards his students

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Progress Test Significantly Increase the Nursing Exam Try Out Score

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Keywords: progress test, national nursing exam, nursing student, e-learning

Preparing for the National Nursing Exam is a challenging process that requires creative strategies. This study aimed to evaluate the effect of progress test, a tailored program to familiarize students with the National Exam test system and questions, on the students' performance in the Nursing Exam Try Out. This was pre-experimental study with one group pre and post-test design. Of the total 143 eligible internship nursing students, 139 participated in the pretest and 125 finished the post-test within 2 months duration. During the study, the students were practicing online through the progress test program in their 6 different homebased hospitals in Yogyakarta and Central Java. The 180 multiple choice questions for progress test were developed based on the National Nursing Exam Blue Print and have been reviewed by internal reviewers. The result of the study showed that there was a

statistically significant increase of exam score from 43.75 ± 9.59 to 48.49 ± 7.83 (p 0.000). With passing grade of 47, only 57.6 % students passed the exam in the pretest while 62.5 % passed the exam in posttest. The progress test can be used as an effective strategy to prepare and increase the possibility to pass the National Nursing Exam

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Application of Revised Trauma Score Assessment System in Trauma Patient in Emergency Department PKU Muhammadiyah Bantul Hospital

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Keywords: Emergency Department, Revised trauma score, Trauma patient

Nurses in the emergency department of PKU Muhammadiyah Bantul Hospital do not have the instruments to conduct trauma assessments in injured patients. The Rapid Trauma Score (RTS) is an instrument for assessing quickly and precisely cases of injury or trauma. RTS is considered easy and simple for trauma scoring and can effectively assess trauma prognosis. The main purpose of the study was to evaluate the the implementation of RTS in trauma patients in the emergency department of PKU Muhammadiyah Hospital, Bantul. This study was a descriptive analytic study. Data were collected from purposive sampling patients who entered the emergency department at PKU Muhammadiyah Bantul hospital in July-August 2018 with total of 31 patients and 12 nurses. The instrument of this study consisted of an observation sheet for the assessment of the RTS and an RTS needs identification questionnaire. Data analysis using descriptive analysis. Results: 83.4% of nurses at PKU Muhammadiyah Bantul Hospital said they needed a tool to assess trauma cases in the emergency department. The age of patients with trauma in the emergency room at PKU Muhammadiyah Bantul Hospital was 38.7% aged 40-65

years, 25.8% patients suffered minor head injury, the highest trauma score was 16 (67.7%), the lowest trauma score was 7 (3, 2%) and 9.7% of patients referred to the tertiary hospital. RTS is considered easy and simple for trauma scoring and can effectively assess trauma prognosis.

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Experiences of Nurses in the Implementation of Hospital Disaster Plan:
A Phenomenological Study

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Keywords: Hospital Disaster Plan, Role of Nurse, Experience

Background: The role of nurses in each phase of disaster management is regulated in the Hospital Disaster Plan (HDP) prepared by the hospital team. The experiences of nurses in handling disaster at various stages need to be explored. The aim of the study is to get description of nurses' experiences in HDP at PKU Muhammadiyah Bantul Hospital.

Methods: This study was a qualitative study with a phenomenological approach. Five nurses who have worked for minimum five years and involved in a disaster team were selected. A semi-structured interview between 30 and 45 minutes was conducted.

Results: There were three emergent themes that are the roles of nurses in the preparedness and mitigation phase, the roles of nurses in the disaster/emergency response phase and the roles of nurses in the development of collaborative networks in disaster management.

Conclusion: The roles of nurses in running HDP programs were found to be good in terms of preparedness, mitigation, disaster response phases and collaborative network development. Strengthening the capacity of nurses must be continuously improved in running HDP programs.

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The Relation between Nurses Spiritual Intelligence and Patients Spiritual Needs

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Keywords: spiritual intelligence, spiritual needs, nurses

Background: Nurses who have good spiritual intelligence are used to build awareness on the basis of worship and the help of human needs. Spirituality can help patients to understand the way of life and find their confidence. Therefore, they can be able to and find hope, inner harmony and composure.

Purpose: The purpose of this study was to determine the relationship between nurses spiritual intelligence with fulfilling patients spiritual needs in the hospital ward PKU Muhammadiyah Gamping.

Method: This research used quantitative method with cross sectional research design. The sample in the study were 91 nurses who worked and served in the wards of PKU Muhammadiyah Gamping Hospital and were willing to fill out the questionnaire which is determined by simple random sampling method.

Result: Most of the nurses at PKU Muhammadiyah Gamping have spiritual intelligence in good category (82.4%) and fulfilling patients spiritual needs with good category (62.6%). The result of statistical analysis showed that there is relation between nurses spiritual

intelligence and fulfilling patients spiritual needs with value $p = 0.002 (<0.05)$ shows there is relation between spiritual intelligence with spiritual fulfillment.

Conclusion: The better the spiritual intelligence a nurse has, the better the act of spiritual care that will be done to meet the spiritual needs of the patient.

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Development of problem-based teaching-learning management model Faculty of Nursing Ubon Ratchathani University

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Keywords: development; problem-based learning

Thinking is the basis of intelligence. Therefore, the development of learners is necessary. Problem-based teaching is one of the most popular methods. Whether or not learning is successful depends on many factors. This article presents about How to proceed, problems, obstacles, corrections and reflections of students. For the benefit of exchanging knowledge and experiences in nursing education management and leading to improvement of teaching and learning management in accordance with learner development for the 21st century.

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DiabEHT: An Approach to Improve Self-care Management of Diabetes

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Keywords: Diabetes, Self-care management, Android application, Support Group Activity.

Diabetes is considered a global epidemic. It causes devastating complications such as cardiovascular events, strokes, end stage renal disease, blindness and lower extremity amputation. However, these can be prevented through compliance to treatment regimen. Hence, the researchers conducted the project diabeht that included weekly support group activities and lecture series, installation of the diabeht app, and diabooth in the health center, to facilitate compliance and improve self-care management of diabetes among 30 participants in Barangay Sta Felomina, Philippines. The app was tested for usability. The mean system usability scale score of 83.67 indicated that the mobile application generally has good design and very useful. Furthermore, results showed significant improvement on the level of compliance ranging from moderate to high and low to moderate, before and after the project implementation for the following diabetes self-care activities: general diet (T-test=-5.162), exercise (T-test=-2.933), blood glucose monitoring (T-test=-4.482), and foot care (T-test=-4.072). Also, about 87% of the participants had significant improvement in their blood glucose reading 6

weeks after the project implementation. Indeed, the project had improved self-care management of participants and facilitated compliance. The app has proven to promote enhanced self-care management of diabetes, cost-effective, and efficient partner of health care providers

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Differences Regarding the Role Perceived Doctors and Nurses Against Patient Satisfaction

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Keywords: patient information, nurse-doctor satisfaction, patient expectations, patient satisfaction

Objective: To assess and compare the roles perceived by doctors and nurses regarding medical information conveyed to patients and to compare them with patient opinions regarding the quality of medical information delivered to patient. Using the questionnaire given to 300 doctors and 500 nurses, and the inpatient satisfaction survey of as many as 1,000 patients a day before returning home, as part of the patient quality information improvement program at regional hospitals in Banjarmasin. The analysis was carried out using SPSS. The results of this study were that the announcement of the diagnosis and prognosis was made only by doctors. Regarding the explanation of the diagnosis, information about the investigation, and the benefits and risks of treatment, carried out by the nurse, while the doctor considers that generally the doctor provides information. Patients generally strongly agree with the information submitted, but more than 20% disagree with information

about the benefits and risks of investigation and treatment. The most important problem highlighted by nurses is that they do not have the knowledge of medical information delivered to patients by 55% doctors to the patient and to compare it with the patient's opinion about the quality of medical information delivered to patients.

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The Effect Of Psychoeducation Therapy On Mothers' Behavior In Providing Nutrition To Infants Aged 0-6 Months In The Community Empowerment Agency Of Sri Astutik, S.St. , Warungering, Kedungpring, Lamongan

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Keywords: behavior, nutrition, psychoeducation therapy

Psychoeducation Therapy is life skill training providing psychological information services either individually or in groups to improve client's ability in providing nutrition to infants aged 0-6 months. The purpose of this study was to determine the effect of group psychoeducation on mother's behavior in providing nutrition to infants aged 0- 6 months. The design of this study was a pre-experimental one group pretest-posttest design, with a simple random sampling technique. The sample amounted to 39 respondents of nursing mothers at community empowerment agency (BPM) of Sri Astutik, S.ST, Warungring, Kedungpring, Lamongan. Data collection was carried out in January-March 2018 using a closed questionnaire, and analyzed using the Wilcoxon test. The results showed that prior to psychoeducation, mothers' behavior in providing nutrition was not good (56.4%) while after psychoeducation almost all (84.6%) mothers' behavior was good. The Z value = -4.000 with a significant level of 0.000 ($p < 0.05$) indicated that there was an effect of

psychoeducation on mothers' behavior in providing nutrition to infants aged 0-6 months at BPM Sri Astutik, S.ST, Warungring, Kedungpring, Lamongan. Thus psychoeducation therapy can be performed to increase knowledge about providing appropriate nutrition to infants aged 0-6 months.

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Sistematic Review: Relationship between Pregnant Women Weight, Fetal Weight, Age at Pregnancy, Gravida Status with Birth Weight

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Keywords: Pregnant Woman's Weight, Fetal Weight, Age at Pregnancy, Baby's Birth Weight

Background : A person's nutritional condition is influenced by her nutritional status during the pregnancy. In other words, the nutritional status of pregnant women is very influential on her health and as a predictor of pregnancy outcomes for mothers and nutritional status of newborns (Senbanjo et al, 2013). This is due to fetal food intake. Fetal food intake can be through the umbilical cord that is connected to the mother's body (Indreswari et al, 2008). We have to know that maternal and child health efforts are carried out to reduce mortality. One of them is obstructed fetal growth which must be known while the baby still in utero, so that the clinician can be more stringent in monitoring and planning the delivery method to reduce the risk of perinatal death. The increase in maternal weight during pregnancy is directly related to the weight of the baby and the risk of low birth weight increases with a lack of weight gain during pregnancy. This shows a significant relationship between the increase in body weight of pregnant women and the weight of the baby born. (handayani, 2013). From several studies, it is still not known what factors most influence the birth weight of the baby, so in this study sistematic review was carried out as a strong first step for other researchers in developing this research.

Method : The method this research is a systematic review through journal reviews of the relationship between maternal weight, fetal weight, age at pregnancy, status of Gravida with birth weight

Result and Discussion : Based on the analysis of the article it was found about the relationship between maternal weight, fetal weight, gestational age, gravida status and birth weight. Several studies have reported an increased risk of low birth weight (LBW) with generally defined as women <20 years. The number of birth for women 35 years is increasing in some countries. Several mechanisms have been suggested to explain this. Biological mechanisms indicated that infant birth Low birth weight (LBW) from teenage mothers <20 years. Blood circulation to the cervix and

also to the uterus in adolescents is still not perfect so this can interfere with the process of input nutrients from the mother to the fetus. Nutrition of pregnant adolescents also give the effect because adolescents still need nutrients , in the other hand nutrient have to be shared with the fetus but adult pregnant women who do not need nutrients for growth (Johanes, 2009 in Rahardjo et al, 2011). Biological factor are considered for teenage mothers because as risk for birth outcomes, some result from research support this. (Fraser, Brockert, & Ward, 1995; Chen, et al., 2007). However, additional research shows that this difference does not exist among African-American women because of higher average exposure to social and environmental losses compared to whites (Geronimus, 1987; 1996). This explanation shows that unfavorable birth outcomes among teens compared to older mothers are the norm, from which African American mothers deviate as a result of lower socioeconomic status. The role of social loss in understanding the risks of compromised young mothers from birth outcomes is examined, especially those related to the selection of disadvantaged teenagers to give birth to children. Thus, the way the age of young mothers is associated with unfavorable birth outcomes is considered, both cross and in racial / ethnic groups

Conclusion : This study has not been able to find a relationship between the weight gain of pregnant women on the weight of the baby born. According to assumptions, this happens because there are still other factors that are not yet known exactly where these factors can affect the weight of the baby born. So the researcher can find immediately.

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SELF READINESS OF WOMEN WHO WERE MARRIED AT YOUNG AGES IN CARRYING OUT A NEW ROLE AFTER BEING MARRIED

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Keywords: Readiness, Marriage, Women, Young Age, Roles

The marriage rate of women who get married at a young age in Indonesia is still high. The high rate of marriage at a young age can cause various problems in marriage, and this is due to the lack of preparation before women decide to get married. One of the readiness of women before deciding to get married is readiness in carrying out roles. More important role readiness is prepared by women because it deals with duties of wife which are more in the domestic sector such as doing household chores accompanying husbands and taking care of children. The purpose of this study is to describe the readiness of women who were married at a young age in carrying out new roles after marriage in Yogyakarta. This research uses qualitative method with phenomenology approach. Data collection is done with interview and observation. Participants totaling five people

were determined by purposive sampling. The validity of the data used source triangulation and checked the data back to the participants. Analysis of data were by comparing among categories, marking and describing descriptively. The results show that not all participants have readiness to carry out new roles after marriage. There are things that prevent participants from carrying out roles.

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MOXIBUSTION FOR NAUSEA AND VOMITING IN EARLY PREGNANCY

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Keywords: Moxibustion, P6, ST36, nausea-vomiting

Nausea and vomiting were a common symptom that occurs in 70-80% of pregnant women. 13 % of pregnant women who were experience nausea and vomit develop into HEG. Antiemetic effects on nausea and vomit have been shown to reduce the symptoms of nausea and vomiting in pregnancy but found a 7% increase in the risk of birth defects. Moxibustion was a heat stimulation technique at acupuncture points. Moxibustion was a safe, inexpensive and non-invasive way to help reduce symptoms of nausea. The purpose of this study was to explain the effect of moxibustion at P6 and ST 36 on nausea vomiting at <16 weeks' gestation. The method in this study used Quasy Experiment design with the pretest posttest with two group design. The sampling technique used consecutive sampling with a total sample of 15 mothers who have gestational age <16 weeks in the moxibustion group at point P6 and 15 in the moxibustion group at the ST36 point. The instrument used to measure nausea and

vomiting used PUQE (Pregnancy Unique Quantification of Emesis) and β -endorphin hormone levels. The results of this study indicated that moxibustion at point P6 can reduce symptoms of nausea and vomiting at <16 weeks' gestation ($P < 0.05$). Moxibustion at the ST36 point was less effective in reducing symptoms of nausea and vomiting in early pregnancy ($P > 0.05$). Moxibustion at P6 point was more effective than at ST36 point in reducing symptoms of nausea and vomiting in early pregnancy.

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EFFECTIVENESS OF ANION SANITARY PADS IN MENSTRUAL DISCOMFORTS: IMPLICATION TO HEALTH OF WOMEN

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Keywords: Anion sanitary pads, conventional sanitary pads, menstrual discomforts, serotonin, women health

Menstrual discomforts are considered as merely a minor health concern and is given less significance and attention in the public agenda because of the private nature of menstruation. Manufacturers of anion sanitary pads have claimed that anion strips embed on sanitary pads help alleviate menstrual discomforts. Less studies supported this claim, leaving curiosity on how it would affect the health of women. The study evaluated the effectiveness of anion sanitary pads in alleviating menstrual discomforts. Using pre-experimental research design, 30 college students with regular menstruation cycle were purposively selected and given questionnaires before and after anion sanitary pad use. Respondents will rate the level of menstrual discomforts experienced before and after use using a questionnaire. A supply of anion sanitary pads was distributed to the respondents. Wilcoxon signed rank test was used to determine any significant differences. There are no changes in the duration of menses but a marked decrease in the use of anion pads was noted. Menstrual discomforts were still evident before and after anion

sanitary pad use but an apparent decline in the level of discomforts was observed. Among the discomforts, irritability, menstrual cramps and mood swings have the highest mean difference. An improvement of the menstrual discomforts in post-assessment was observed. Though hormones estrogen and progesterone were the identified causes of menstrual discomforts, the possibility that serotonin levels may also be a cause of the discomforts was entertained since it also affects mood and physiological changes.

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THE EFFECTIVENESS OF THE SERVICAL CANCER PREVENTION GUIDELINE BOOK ON WOMEN PARTICIPATION OF VISUAL ACETIC ACID INSPECTION EXAMINATION (IVA)

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Keywords: Guidebook, IVA Participation

Cervical cancer caused by infection with Human Papiloma Virus (HPV) is one type of cancer which has high prevalence and belongs the second leading cause of death for women in the world after breast cancer. It is estimated that every day 40-45 new cases appear and around 20-25 people die due to cervical cancer. To prevent pre-cancerous lesions gradually and develop into invasive cancer, primary prevention needs to be done through the provision of health promotion and guidebook on early detection of cervical cancer. This detection can use the easiest, cheapest and affordable method, namely inspection of Visual Acetate (IVA) Inspection. In Kudus district the coverage of early detection of cervical cancer by the IVA method is only 2% of the number of women aged 30-50 years. This study aims to determine the effectiveness of health promotion and guidebook on the early detection of cervical cancer as an effort to participate in women's IVA examination. This study was quasi-experimental with the design of the pretest posttest non equivalent control group, with a sample of 66 respondents divided into two groups taken using consecutive sampling technique. Later on, the data were analyzed using McNemar and Chi Square tests. The results showed the results of the McNemar test on

knowledge in the intervention group had p value of 0.003 while in the control group had p value of 0.630. In the intervention group the participation of women doing IVA examination had a p value of 0.004 and in the control group participation of women conducting IVA examinations had p value of 0.500. Chi Square test results for comparison between the intervention group and the control group had p value of 0.003. Providing health promotion and guidebook for early detection of cervical cancer is very effective on increasing the participation of women in Payaman village in Kudus Regency of IVA examination. There were differences in women's participation in IVA examinations between the intervention group and the control group after being given health promotion and standard books on early detection of cervical cancer.

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Death Acceptance Theory

Minnie Besin Mamug

Keywords: Older Adults, Death experiences, Acceptance, Grounded theory

The issue of death anxiety and fear of death is a great concern for health care providers due to the emotional and behavioral outcomes of the recipients of care. Theoretic and observed findings on the death concept have not been thoroughly examined in the nursing research especially towards the elderly point-of-view. This theory generation utilized the grounded theory methodology via inductive approach to theory development that would explain the death experience, consciousness and acceptance towards death in an individual's lifetime. Data were gathered from the older population using purposive sampling. Interviews were semi-structured and based on the death perception and experiences of the older participants. Both memo writing and comparative analysis was used during the course of the study and also aided by the method of open, axial and selective coding. In this study, theoretical categories were generated to derive the following propositions: Overcoming death experiences results to death acceptance; death consciousness influence death

acceptance; death acceptance lead to the process of death preparation; and spirituality is an essential element of death experience, death consciousness, death acceptance and death preparation. The theory generated is that death acceptance is an accumulation of death experiences and one's spiritual beliefs which translate to death consciousness that results to the acceptance of one's mortality gearing towards death preparation.

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THE EFFECT OF HYDROTHERAPY ON BLOOD PRESSURE OF THE HYPERTENSIVE PATIENTS IN PUBLIC HOSPITAL OF RA KARTINI JEPARA.

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Keywords: Hypertension, Blood Pressure, Hydrotherapy

Background: Hypertension as a cardiovascular disease estimated in 2013 has caused 30% of deaths worldwide and prevalence of 37.4%. In 2015, Public Hospital of RA Kartini Jepara recorded the total of cases of essential hypertension and other hypertension as many as 464 cases of 24,674 all non-communicable diseases cases in community Health centers and Hospitals as Jepara Regency.

Objective: To know the effect of Hydrotherapy on blood pressure of the hypertension patients in public hospital of RA Kartini Jepara.

Method: The type of research used quasi experiment with pre test and post test non-equivalent control group. The sample size was 20 hypertension patients with purposive sampling technique. The instruments used sphygmomanometer of mercury and observation sheets. The data analysis used parametric statistic Paired-Samples T Test and Independent-Samples T Test. **Results:** 1) Mean systolic blood pressure before given hydrotherapy in intervention group

of 165,00 mmHg, diastolic 101,00 mmHg. 2) Mean systolic blood pressure after hydrotherapy in the intervention group of 151,00 mmHg, diastolic 92,00 mmHg. 3) Mean systolic blood pressure on the first observation in the control group of 158,00 mmHg, diastolic 100,00 mmHg. 4) Mean systolic blood pressure on the last observation in control group 163,00 mmHg, diastolic 95,00 mmHg.

Conclusion: There is the effect of Hydrotherapy on blood pressure, with the difference in the average decrease in systolic blood pressure of 19,000 mmHg and diastolic 4,000 mmHg, with ρ value of 0.000 for systolic and ρ value of 0,0443 for diastolic.

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Quality of Life in Hemodialysis Patients with Chronic Kidney Disease

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Keywords: Chronic Kidney Disease, Quality of Life, Hemodialysis

Chronic kidney disease and the treatment have an important part in shaping the QoL of patients receiving hemodialysis. As a result CKD affects the quality of life from the physical, psychological, social and environmental dimensions. A descriptive analytic study was conducted in the hemodialysis unit of the RSUD Dr. Soegiri Lamongan. A total of 88 patients CKD with hemodialysis were studied. Patient's QOL was rated by WHOQOL-BREF questionnaires. The results showed that in the domain of quality of life, the low domain was physical with an average of 20 and the high domain was social with an average of 10. While most respondents with high quality of life as many as 78 people (88.6%) and a small respondents with medium quality of life as many as 10 people (11.4%). The results of this study can be concluded that most respondents have a high quality of life. However, the physical

condition of CKD patients have significant problems. Thus, given the information by the hospital to overcome the physical disturbances that occur in CKD patients, so that his quality of life improved.

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Exploration of Elder Neglect by Family on The Islamic Perspective in Kalirandu's Village

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Keywords: Family; Elderly; Elder Neglect.

An increase in the elderly population will cause the elderly to be at risk of experiencing health problems, one of which is a problem experienced in the family that is neglect. Neglect is one of the most common acts of mistreatment for families towards the elderly in meeting their physical and mental health needs. The family has a very important role in meeting the needs of the elderly, but the perpetrators of neglecting the elderly are found more in family members. In accordance with the teachings of Islam which views the elderly with high respect and teaches to treat the elderly well, so that their existence is not considered a burden on the community, especially the family. This study is to identify the incidence of elder neglect by the family on the Islamic perspective in village of Kalirandu. The results of the study showed that all participants knew about how to care for parents who were elderly in an

Islamic perspective. The obligation of child is to help parents fulfill their needs, in other words children are obliged to provide for the parents. Ethical issues that need to be considered in this study are confidentiality, autonomy, justice, and beneficency.

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THE RESPONSE AND IMPACT OF BULLYING BEHAVIOR IN ADOLESCENT IN YOGYAKARTA

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Keywords: Response, Impact, Bullying, Teenage, Yogyakarta

The phenomenon of bullying on teens in Indonesia requires a serious concern for the Government, schools, or parents. A High number of incidents of bullying on teens give negative impact physically and psychologically for the perpetrator or the victim. The response is indicated when teenager bullying is self-defense victims against such behavior. This research aims to identify the response and impact of bullying on teens in Yogyakarta. This research used a qualitative approach method of Phenomenology. Data retrieval was done through observation and in-depth interviews. Participants in the study amounted to 14 people, which consist of parents, teens, and teachers are determined by purposive sampling. The validity of the data is done using triangulation methods, sources, and peer debriefing. Thematic data analysis with the help of open code software 4.02. The results showed that the response is given teens against bullying

behavior among these teens teen evasively against, teenagers, and teenagers afraid. The impact of bullying on a victim, i.e., teenagers being unwilling to get together with his friend could even become perpetrators of bullying. As for the perpetrator gets punishment from the school and feared by his friend at school. Prevention of bullying behavior in teenagers is urgently needed to mitigate the effects posed for adolescents. The results of this research can be used as basic data for the development of prevention programs bullying in teenagers

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Factors Affecting the Motivation of Nursing Students in Joining the Student Exchange Program

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Keywords: motivation, factor, nursing student, student exchange

Nursing student exchange is one of the programs held to improve the quality of students, especially in developing nursing cultural competence. However in its implementation, not all students are motivated to take part in the program. The purpose of this study was to determine the factors that influence student motivation in participating in the international student exchange program. This study uses a descriptive & analytic cross section method. 265 students were taken using quota sampling via online survey from total population of 481 undergraduate level students in second, third and last year. The results showed student motivation towards the exchange program was high (74.3%) with the most important reason is for career development (86.8%), world enlightenment (5.7%), entertainment (1.5%) and personal growth (6%). However, there were obstacles faced by some students, there are financial barrier (37.7%), lack of confidence in English (35.5%) and lack of family support (8.7%).

Other factors that were significantly proven to be related to student motivation were tested using the Wilcoxon sign rank test with $\alpha = 0.05$, there are English ability ($p = 0,000$) and information obtained about student exchange ($p = 0,000$).

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Religiosity, Social Support and Anxiety in Mothers of Children with Leukemia

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Keywords: Anxiety; Children with Leukemia; Mother; Religiosity; Social Support

Background: The incidence of acute lymphoblastic leukemia cancer continues to increase every year. Child with cancer cause anxiety for parents such as sleep disorder, fatigue, inability to make decisions. Factors that are needed in anxiety are religiosity and social support.

Objective: To analyze the relationship of religiosity and social support with the anxiety of mothers.

Method: This research uses cross sectional design. Sampling was done by purposive sampling technique. The sample is 30 mothers who have children with acute lymphoblastic leukemia at Ulin General Hospital, Banjarmasin. Analyzed by using Spearman Rank test with significant value $p < 0,05$.

Result: The mothers with high religiosity were 21 people (70%), mothers with high social support of 21 people (70%), and mothers who have moderate anxiety of 12 people (40%). The analysis test correlation between religiosity with mothers anxiety got p value = 0,001; $r = -0,555$. The analysis test correlation between social support with mothers anxiety got p value = 0,003;

$r = -0,480$.

Conclusion: There is a significant correlation between religiosity with mothers anxiety. There is a significant correlation between social support with mothers anxiety. The importance of health workers in improving religiosity, social support of mothers since their child diagnose Acute Lymphoblastic Leukemia.

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Withdrawal Level of Conventional Cigarette Smoker on University Student

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Keywords: withdrawal level, conventional cigarette

The number of new smokers in Indonesia is increasing, especially in adolescence and adulthood. The

Keywords: anxiety, hydrotherapy, student, wudu Therapy

National examination which called *Ujian Nasional* (UN) in Indonesia, is an activity of measuring and evaluating the achievement of national graduate competencies in certain subjects. Nevertheless, UN is always be a controversy because of many negative effects in multi-aspects, such as physical, moral, and psychological. The students are spending their time in study (try out, course) for preparing UN and it makes students lack of sleep, lack of exercise, and lack of appetite which makes them fatigue and easy to get sick. National examination is also increase cheating practice due to afraid of failing the examination and pressure from parents to get high score. Besides, UN can cause many negative effects on psychological, one of them is anxiety. The anxiety arises due to excessive subjects facing the students, and they feel fear that the result of the national examination is not satisfactory. Extreme anxiety can harm physically, cognitively, emotionally, and behaviorally. However, the anxiety disorder can be treated using pharmacology and non-pharmacology treatments. One of the non-pharmacological treatments for the anxiety stays through a wudu intervention. Besides having the value of worship for the doors, the wudu has similar principle as hydrotherapy in overcoming

the anxiety. This research aims to determine the effect of performing wudu in reducing the anxiety among high school students facing the National Examination. The study is a quasi-experimental using the pretest and posttest with control group research design. The subject was 70 respondents who selected through the simple random sampling technique. The instrument is S-AI (State-Anxiety Inventory). The data was analyzed its significance by using T-Test. The results of paired t-test analysis show the value of $p = 0.000$ ($p < 0.05$) in the intervention group and $p = 0.948$ ($p > 0.05$) in the control group, which means that there are significant differences in the intervention group before and after performing wudu therapy. Therefore, it can be concluded that there is the effect of implementing wudu in reducing the anxiety in the high school students facing the National Examination.

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Determinant Analysis of Bullying among School-Age Children in Yogyakarta, Indonesia

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Keywords: School Age Children, Bullying, Parenting, Television Shows, School Factors, Peer

Bullying is a very common, complex and potentially damaging among school age children. The current case of bullying is a serious problem especially in the school age group because the incidence has increased from year to year, especially in Yogyakarta. This study aims to determine the factors that influence the occurrence of bullying among school-age children in Yogyakarta. The research method used was quantitative with a cross-sectional design in 114 school-age children in one of the elementary schools in Yogyakarta. The samples were taken by simple random sampling technique. The research instrument uses a questionnaire. Data were analyzed using Chi-Square Test. The results showed that the bullying incidence was 51.8% dominated by the type of physical bullying which amounted to 62.7%. There was no significant relationship between sex (p value = 0,490), parenting style (p value = 0.778) with the incidence of bullying in

school-age children. There is a significant relationship between school factors (p value = 0.001), peers (p value = 0.024), intensity of watching television shows (p value = 0.026) with the incidence of bullying in school-age children. It is expected that schools and community health nurses have a role in controlling bullying that occurs in schools.

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The Effect of Support of the Support Group in Improvement of Self Efficacy Breast Cancer Patients Taking Chemoteraphy for Coping with Cancer

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Keywords: breast cancer, self efficacy, the support of support group

Self efficacy for coping with cancer in breast cancer patients can improve the adaptive coping, welfare dan quality of life of the patients. This study examines the effect of support of the support group to improvement self efficacy breast cancer patients taking chemotherapy for coping with cancer. The study design uses quasi experiment with pre-post test within control group, involving 76 breast cancer patients with intervention (38 respondents) and control (38 respondents) using concecutive sampling method. Retrieving data using instruments Cancer Behavior Inventory Version 2. Statistical test results with chi square showed no significance difference proportion self efficacy for coping with cancer between in intervention group and the control group (RR 1,4 with 95% CI 0,8-2,4). The support of support group with appropriate methods needs to be given to cancer patients as part of

nursing care in order to increase self-efficacy for coping with cancer.

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RESILIENCE IN CHILDREN OF NATURAL DISASTER VICTIMS: A LITERATURE REVIEW

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Keywords: resilience, children, natural disaster

Background: A natural disaster is a natural event that can cause environmental damage, human casualties,

property losses, and psychological impacts. This psychological impact is important for us to discuss, especially for children. Children need the ability to rise from the difficulties that they experience a post-natural disaster.

Purpose: This review paper to analyze the level of resilience in children affected by natural disasters.

Methods: This article searches used to study the literature approach from several ProQuest, PubMed, ScienceDirect, and Google Scholar databases using keywords "*Resilience OR resiliency OR resilient AND youth OR Adolescent OR Child AND natural disasters*". Based on the screening process of 3,369,259 journals, ten articles were obtained with the selection of inclusion criteria.

Results: Find 3 themes, namely the important to confirm the resilience and early recognition about mental disorder post-disaster; factors that influence the resilience of children after natural disasters, including mental, spiritual, physical, ecological, environmental, psychological, emotional factors and external factors involving social, both family support and safe community; and provision of Youth Leadership Program

(YLP) and Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) interventions to increase resilience.

Conclusion: Factors of social support that are good from family, community, and school are important elements in the formation of resilience in children post-natural disaster.

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THE EFFECT OF CORTICOSTEROID ON CLINICAL DESCRIPTION AND LENGTH OF STAY IN CHILDREN'S DHF PATIENTS

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Keywords: Methylprednisolone, DHF, platelets, temperature, length of stay

Background: Plasma leakage is a problem that needs to be watched out for DHF patients which can lead to shock conditions and potentially cause death. Previous research on the use of methylprednisolone in adult DHF patients can significantly increase platelet counts but the evidence regarding the use of methylprednisolone in children DHF patients is still very limited.

Objective : to determine the effect of giving methylprednisolone to clinical features, laboratory tests and length of stay in pediatric DHF patients at PKU Muhammadiyah Hospital, Bantul.

Methods : The study design used RCT with a single blind. There were two groups (age 1 – 18 years old), namely the intervention group was given methylprednisolone therapy (n= 20) and the control group was given a placebo (n= 20). Bound variables measured were body temperature, trommbocytes, hematocrit and length of stay. Data analysis using the SPSS program.

Result: There was no significant difference between groups on the number of platelet counts ,hematocrit and

temperature variables where the p value was greater than 0.05. Whereas in the variable length of stay there are significant differences with the p value of 0.01 (p< 0.05). Conclusion: There were no significant differences in laboratory and clinical variables but there were significant differences in the variable length of stay.

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FACTORS RELATED TO THE INCIDENCE OF MENOPAUSE

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Keywords: menopause, menarche, last delivery, parity

Background: A woman who gets older then will normally experience menopause. Menopause is affected by several factors and it is related to the global phenomenon which shows that the average age of

menopausal women in various parts of the world lately becomes faster.

Research Purposes: This study aimed to investigate the correlation between age of menarche, age of the last

delivery, and parity number with the occurrence of menopause.

Research Methods: This study used a quantitative method with cross-sectional. The sample in this study amounted to 40 women aged 45-55 years old who had stopped menstruating for 1 year.

Results: The result of this study shows that the correlation between menopause with the age of menarche is obtained p value = 0,288 ($p > 0,05$), menopause with the last delivery age is obtained p value = 0,246 ($p > 0,05$), and menopause with parity number is obtained p value = 0,025 ($p < 0,05$).

Conclusion: There is no correlation between the age of menarche, age of the last delivery to the incidence of

menopause. There is a positive correlation between the amount of parity and the incidence of menopause.

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Efektivitas pelatihan dengan modul penanganan kegawatdaruratan retensio plasenta terhadap self efficacy bidan

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Keywords: pelatihan, modul, self efficacy, bidan, penanganan retensio plasenta

Background: Analisis kematian ibu terbukti terkait erat dengan kualitas penolong persalinan oleh tenaga

kesehatan termasuk bidan. Analisis WHO; pelayanan ibu masih kurang standar termasuk kegawatdaruratan

obstetri. Rendahnya self efficacy atau keyakinan akan kemampuan diri untuk bertindak diduga berdampak pada rendahnya kualitas suatu tindakan, termasuk tindakan oleh bidan (hampir 70% persalinan ditolong oleh Bidan). Mengapa bidan harus memiliki self efficacy tinggi, karena banyaknya kejadian penyulit yang tidak diinginkan selama persalinan yang akan menjadi kegawatdaruratan obstetri, seperti retensio plasenta, atonia uteri, perdarahan, hipertensi, dan infeksi mengancam jiwa ibu. Kesalahan penatalaksanaan kala tiga persalinan merupakan tanda rendahnya kualitas pelayanan dan penyebab tunggal terjadinya komplikasi perdarahan postpartum hingga syok yang dapat mengancam jiwa ibu. Retensio plasenta dengan perdarahan merupakan penanganan kala tiga tidak tepat. Pengetahuan bidan yang optimal dapat menentukan sikap dalam pengambilan keputusan dan kekuatan self efficacy untuk penanganan yang segera, tepat dan adekuat. Metoda pelatihan dan modul diduga bisa dijadikan solusi untuk meningkatkan pengetahuan, sikap dan self efficacy.

Subjects and Method: 'search engine'; Scienc Direct, Google Scholar, PubMed, dan the lancet. Review 6 artikel (tahun 2008-2018) berhubungan pelatihan dengan modul kegawatdaruratan retensio plasenta terhadap self efficacy, sikap dan pengetahuan bidan

dalam kualitas penanganan. 1 jurnal randomized control, 5 jurnal campuran metoda. Desain; eksperimental randomis pretest posttest control group desain, uji "T test dan Regresi Linear. alat ukur kuesioner. Sampel 50 bidan pada tujuh Puskesmas di kabupaten Bungo provinsi Jambi.

Results: Semakin terlatih bidan semakin dihargai dan semakin cakap dalam penanganan.

Conclusion: pelatihan dengan modul efektif terhadap self efficacy bidan.

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LITERATURE REVIEW : PANDANGAN PENGOBAT TRADISIONAL TERHADAP GANGGUAN JIWA

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Keywords: pengobat tradisional, gangguan mental, dan pengobatan tradisional

Penggunaan obat tradisional sebagai pengobatan alternatif berbagai penyakit bukanlah praktik baru. Penyembuhan tradisional merupakan bagian yang tidak terpisahkan dari kepercayaan yang dianut oleh masyarakat. WHO memperkirakan bahwa lebih dari 80% populasi Afrika mendatangi tabib tradisional karena alasan kesehatan, sedangkan 40%-60% diantaranya memiliki semacam gangguan mental. Dewasa ini, banyak perdebatan tentang kesehatan mental secara global yang semakin membutuhkan dan mempertimbangkan kolaborasi antara pengobatan berbasis biomedik dan tradisional. Meskipun pada saat ini tidak banyak penelitian yang menuliskan variable yang akan mempengaruhi kolaborasi tersebut. Tujuan dari *literature review* ini adalah untuk menganalisa hasil penelitian terkait pengaruh pengobatan tradisional terhadap pasien dengan gangguan mental. Penulisan jurnal ini menggunakan pendekatan studi literature dari beberapa database, yaitu PubMed, Clinical key dan google scholar. Secara total, literature review terdiri dari 5 jurnal; 5 penelitian melaporkan hasil yang efektif terkait kolaborasi antara pengobat tradisional dan pengobatan medis dalam menangani pasien dengan

gangguan mental. Berdasarkan penelitian ini bahwa, pengobat tradisional bisa dijadikan referensi pengobatan bagi pasien dengan gangguan mental. Kolaborasi antara praktisi kesehatan dan tradisional dapat memberikan pengobatan yang lebih konverhensif dan efektif, meningkatkan akses perawatan dan berpotensi mengurangi beban penyakit mental yang dialami oleh pasien

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PROMOTING OXYGEN SATURATION AND RELAXATION LEVEL THROUGH *PURSED LIP BREATHING EXERCISE* AND *PROGRESSIVE MUSCLE RELAXATION* IN PATIENTS WITH LUNG CANCER

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Keywords: PLB and PMR Training Program, Lung cancer, Oxygen Saturation, Level of Relaxation

The most common symptoms in lung cancer are dyspnea and anxiety that cause restlessness on patient. This study aimed to identify the impact of PLB and PMR training program on the increase of oxygen saturation level and relaxation in patients with lung cancer. The study design was Quasy Experiment with pre-test and post-test without control group. There were 19 participants in this study. The instruments included pulse oximetry to measure oxygen saturation and subjective and objective monitoring form to measure relaxation level. The results indicated a significant difference in oxygen saturation before and after PLB and PMR training program (p value < 0,05) and significant difference in level of relaxation before and after PLB and PMR training program (p value < 0,05). Multivariate analysis showed that age was a

strong predictor of oxygen saturation. This study concluded that breathing and relaxation training program were able to promote oxygen saturation level and relaxation.

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Literature Review : Pengaruh Terapi Meniup Balon Terhadap Saturasi Oksigen Pada Pasien Dengan Penyakit Paru Obstruktif Kronik (PPOK)

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Keywords: Teknik Relaksasi Napas, Terapi meniup balon, Saturasi oksigen, PPOK

Latar belakang; Gangguan fisiologis paru dapat menyebabkan penurunan suplai oksigen yang dapat ditunjukkan dengan adanya penurunan saturasi oksigen (SpO²) pada pasien dengan PPOK. Saturasi oksigen pada pasien dengan PPOK dapat mengalami penurunan hingga 85% yang menyebabkan pasien mengalami hipoksemia, sianosis, penurunan konsentrasi hingga perubahan tingkat kesadaran. Saturasi oksigen pasien dengan PPOK dapat ditingkatkan dengan menerapkan terapi nonfarmakologis seperti teknik relaksasi napas dengan meniup balon yang dapat membantu ekspansi paru sehingga mampu mensuplai oksigen dan mengeluarkan karbondioksida yang terjebak dalam paru.

Tujuan; Penulisan literature review ini bertujuan untuk menganalisa hasil dari penelitian terkait pengaruh terapi meniup balon terhadap saturasi oksigen pada pasien dengan PPOK.

Metode; Metode penulisan jurnal ini menggunakan pendekatan literature review dari beberapa database, yaitu Google Scholar, PubMed, EBSCO dan NCBI. Literature Review ini, secara total terdiri dari 5 jurnal dengan menggunakan kata kunci terapi meniup balon, saturasi oksigen dan PPOK.

Hasil; Hasil penelitian menjelaskan bahwa terjadi

perubahan saturasi oksigen pada pasien PPOK setelah dilakukan terapi meniup balon.

Simpulan; Pada penelitian ini terapi meniup balon sangat berpengaruh terhadap peningkatan saturasi oksigen.

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Perceptions' of Hospital Administrators or management toward Factors contributing to the Continuing Professional Development of Nurses in Indonesia

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Keywords: Continuing professional development, perception, qualitative study

Background: Nurses are required to work in a professional manner, including to maintain and improve

their competency periodically through continuing professional development (CPD). However, it is not easy

for Indonesia nurses because Indonesia does not have a Nursing Council which impacts to the different regulation implemented in the hospital. These differences involve the updating competency of nurses in the hospital who give nursing services in different areas of practice.

Aims: This study aims to explore a deep understanding of the factors contributing to continuing professional development from the perception of hospital administrators in Indonesia.

Methods: This study was a qualitative design, the data for which were gathered from 10 hospital administration of one hospital in east Java, Indonesia. The measurements included 10 in-depth interviews and focused group discussion (FGD). Data were analysed using qualitative content analysis.

Result: Three themes emerged as follows: 1) Nursing professional careers with two subthemes: Speciality and

Scientist; 2) In-depth recognition by society, comprised two subthemes: as requirement and improving confidence and 3) selecting prospective program, derived into two subthemes: department needed and selective person.

Conclusion: The findings provided factors contributing to CPD of nurses in the hospital to provide better nursing services to patients offering a basis for developing a greater principle of continuing professional development

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Islamic Parenting on Sexual Dimension and Sexual Attitude Among Muslim Adolescents in Indonesia

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Keywords: Islamic parenting, Sexual attitude, Muslim Adolescence Conference

The number of adolescents doing premarital sex has dramatically increased each year in Indonesia as the most significant Muslim population. To prevent those from happening, parenting pattern given to those teenagers will be observed, one of the patterns is Islamic

parenting. Islamic parenting is parenting by reinforcing values of Islam, Al Qur'an, and As Sunnah. Islamic parenting teaches parent to make their children accustom in performing good deeds and to give them early sex education. This study aimed to determine the

relationship between Islamic parenting on sexual dimension and sexual attitude among Muslim adolescents. The participant of this study consists of 383 first and second years Muslim students from public junior high school in Yogyakarta during January until Mei 2017. To collect data in This study using Islamic sexual parenting and sexual behavior questionnaire. The data were analyzed using the Spearman test. Findings of this study show that there is a significant relationship between Islamic parenting on sexual dimension and sexual attitude among Muslim adolescents. The results of this study provide information about Islamic parenting on sexual dimension and sexual attitude among Muslim adolescents. The implication of this study given reflection to Muslim adolescents need to develop positive value toward sexual self- control

through their parents should be equipped with sex education to prevent premarital sex.

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IDENTIFICATION OF RISK FACTORS OF HYPERTENSION IN UNDERGRADUATE STUDENTS

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Keywords: Hypertension Risk Factors, Student

Background: Hypertension is a major health problem. The high prevalence of hypertension contributes to an

increase risk of cardiovascular disease as the first cause of death in the world. The prevalence of hypertension

occurring at the age of 18 years in Indonesia is high at 25.8%. Students are someone who is at the age of ≥ 18 years, so hypertension can occur in the student. Students have a unhealthy lifestyle, such as smoking, consuming alcohol, consuming coffee, stress, consuming high-salt foods, lack of exercise and obesity, so the students have risk factors of hypertension.

Research Objectives: The aims of this study to identify hypertension risk factors that can modified in Undergraduate Student Universitas Muhammadiyah Yogyakarta.

Methodology: This research used descriptive research method. The sample of this research was 398 students that taken by accidental sampling method. The data were collected by using questionnaire. Data analysis was done by using frequency distribution program.

Results: The results show that the majority of the students are not at risk for obesity hypertension risk, not

at risk of smoking behavior, not at risk of alcohol consumption, at risk of stress, not at risk of coffee consumption, at risk of high salt foods, and are at risk of exercise habits.

Conclusion: Hypertension risk factors: stress, consumption of high salt foods and exercise habits in the students of FKIK UMY majority is at risk category.

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Adolescents Knowledge, Emotional, Behavioral Attitude & Insights on Sexually Transmitted Infections: Implication for Comprehensive Sexual Education Program

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Keywords: Adolescents Behavior, Sexually Transmitted Infections & Sexual Education

Today's time and age, there is no denying that the world is experiencing a paradigm shift of sexual health problem, and these changes is very much alarming.

The Philippines is not exempted from this worldwide phenomenon. The study is conducted in order to assess the cognitive/knowledge, affective/emotional, and

psychomotor/behavioral attitude of the adolescents on Sexually Transmitted Infection.

The respondents of the study were Grade 10 students from six (6) schools in the locality, three of which were from private schools, and three from public Institutions. The study utilizes a survey questionnaire which used a descriptive-survey design in gathering the data for the study and a two-stage cluster sampling method in choosing the respondents.

On average, majority of the respondents got correct on approximately 60% of the questions in the cognitive domain. However, five respondents mark seldom shows that they engage in sexually related acts six times in a month at the most. The top opinions of the respondents on the prevalence of Sexually Transmitted Infections are: The prevalence is due to unprotected sex practices; everyone must be more informed and aware of the current issue. This program requires students to have

an understanding of their own physical and emotional development.

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The Characteristic of Body Mass Index, Physical Fitness Level and Systolic Blood Pressure in Adolescent

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Keywords: Body Mass Index, Physical Fitness Level, Systolic Blood Pressure.

Lastly, the effect of modern era increasing the sedentary lifestyle. Sedentary behavior was lack on physical activity. It has relationship with physical inactivity. It would have an effect on Body Mass Index (BMI), Physical Fitness Level (PFL) and Systolic Blood

Pressure (SBP). Adolescents were an investment in the future. Therefore, preventing from the disease in the future was fundamental. Still limited study about detection in adolescent especially in BMI, PFL and SBP. This quantitative research used in this study with

descriptive and cross-sectional approach. The participants were 60 female and male adolescents with age range between 20-23 years old which chosen by purposive sampling. The exclusion criteria were the adolescent with cardiovascular and respiration disorder. Descriptive and univariate analyses used to analyses this study. After gathered data almost of the almost of the adolescent (71,66%) have normal BMI with mean \pm SD (21,58 \pm 1,73), 33,33% adolescent have excellent PFL with mean \pm SD (103,00 \pm 11,58) and 96,67% adolescent have normal SBP with mean \pm SD (106,75 \pm 7,56). Almost of the participants have the decent BMI, PFL and SBP.

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RELATIONSHIP OF PARENTS ROLE WITH SOCIAL SKILSS OF MENTAL RETARDATION CHILDREN

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Keywords: Parent's role, Social skills, Mental retardation

Mental retardation is a condition characterized by low intelligence that causes the individual's inability to learn and adapt to the demands of society for a perceived abnormality. Individuals of mental retirement certainly will not make the wrong adjustments if parents can accept their presence as well as guide them in the face of environmental demands because in essence they need the

attention and support from families, especially parents. The research was aimed to find out the relationship of parents role and social skills of mental retardation childrens.

The method used is cross-sectional, Method of sampling in this research using total sampling with sample amount 30 respondents.

The result of this research by using Chi-Square test it has been obtained ρ value = 0,023 ($\rho < \alpha$ or $\rho < 0,05$) and OR=7,46 it suggested that there was relation between parents role and social skills of mental retardation childrens.

The Conclusion Availability of good role of parents could increase social skills of childrens was mental retardation. Parents as the closest person in child life could help mental retardation childrens to adapt with environment.

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AN EXPLORATION OF HEALTH BELIEF AND COMMUNITY PERCEPTION ABOUT MENTAL ILLNESS IN BELU DISTRICT EAST NUSA TENGGARA PROVINCE ETHNOGRAPHY STUDY

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Keywords: Health belief, mental illness, mental disorders, perception.

Background: Mental health problems are a major concern in the world both developed and developing

countries that leading causes of ill-health and disability worldwide around 450 million people which affects

everyone at every stage of life regardless of age, sex, rural or urban area and income and cause significant morbidity because it is accompanied by other pandemics, namely stigma and discrimination. The concept of mental disorders varies across cultures because culture shapes expressions, perceptions and treatment preferences so that each culture has its own way of explaining mental disorders based on a set of beliefs and practices in determining causes, health seeking behavior and treatment choices. Different views are based on prevailing local belief systems and cultural norms that influence individual decisions to seek and follow up treatment and care. Health beliefs as a framework for understanding perceptions of mental disorders because these factors influence help seeking behavior.

Objective: The aim of the study was to explore health beliefs and community perceptions about mental disorders in Belu district, East Nusa Tenggara (NTT) Province.

Method: An ethnographic approach used by focused ethnography. Data collection during 1 month (March 19 until April 30, 2019) through interviews, documents, and observations. Tested semi-structured interview guide. The type of purposive sampling consisted of 18 participants consisting of 6 community, 6 health workers, 6 traditional elders living in Belu, NTT. Data analysis using NVIVO.

Results: Qualitative thematic analysis of the interview question responses among each of the six focus groups was conducted and two main themes emerged: (1) the belief that mental disorders have intrinsic and extrinsic causes (2) health beliefs determine the treatment of mental disorders based on the believed causes.

Conclusion: Individual perceptions of aspects of mental disorders vary. Beliefs play an important role in influencing behavior and results. Health beliefs determine how to treat the disease based on the cause believed.

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THE NEIGHBORS' ACTIVITIES IN NURSING CARE OF STROKE PATIENTS IN COMMUNITY: A CRITICAL ETHNOGRAPHY

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Keywords: neighbor activity; nursing care; stroke; community; critical ethnographic.

Stroke is one of non-communicable diseases and high prevalence in Indonesia and South Kalimantan Province. It needs long term care in community because of their disability. Neighbors are involved in nursing care of stroke in community. They help the family to care the stroke patients and have the roles in general health status of stroke as a chronic disease. However, the neighbors'

activities have to explore in term the nursing care of stroke patients in community, Banjarmasin, Indonesia. A critical ethnography was conducted in this study to described and interpret how the behavior of people was influenced by the culture they live in. The data was gathered among six key informants with purposive sampling techniques until saturated data. Participant

observation, in-depth interview, and focus group discussion were employed to collect the rich data with a structure interview guideline. Content analysis such as transcript, coding, typology, matrix, and thematic analysis were used. There were six themes of neighbors' activity in stroke care in community. Their activities were helping to health care facility, financing support, offering food and helping daily activity, motivating, giving information, and helping in social activity. Neighbors contributed the nursing care of stroke patients and help the family to care if there was no family member at home. Nurses should give attention for those

who help and involve the nursing care of stroke patients in community.

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THE EFFECT OF LAUGHTER THERAPY TO DECREASE BLOOD PRESSURE WITH HYPERTENSION PATIENTS IN LOCAL GOVERNMENT CLINIC WELAHAN 1

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1

Keywords: *Hypertension, Blood Pressure, Laughter Therapy.*

Background :. Hypertension is a disease that experienced by the world's population. However, only one of three people who suffer from hypertension knowing the circumstances and only 61% on treatment. Concerns about the emergence of new problems in hypertension will cause mental emotional disorder. One of the lifestyle modifications that can cope hypertension by advocating for more relaxed. One relaxation in

hypertension patients is laughter therapy.

Purpose : The purpose of this study is to determine the effect of laughter therapy to decrease blood pressure with hypertension patients in Local Government Clinic Welahan 1.

Method : The method is a quasi-experimental design with pre-test and post-test. Samples of 32 respondents consist with 16 respondents intervention group and 16

respondents control group. Measure instruments used aneroid sphygmomanometer and observation sheet of laughter therapy. Data analysis used T test.

Results : The results of test analysis-T signed rank test showed mean blood pressure systolic and dyastolic before treatment to intervention group are 162 mmHg and 103 mmHg, meanwhile to control group are 154 mmHg and 96 mmHg. Mean blood pressure systolic and dyastolic after treatment to intervention group are 159 mmHg and 97 mmHg, meanwhile to control group are 154 mmHg and 94 mmHg. So, there is the effect significant of laughter therapy to decrease blood pressure

systolic and dyastolic with p value 0,022 and 0,036 (p value < 0,05).

Conclusion: There is the effect of laughter therapy to decrease blood pressure with hypertension patients in Local Government Clinic Welahan 1.

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The Efficacy Of Chlorhexidine Bathing To Prevent Multidrug-Resistant Infection In The Intensive Care Unit: A Literature Review

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Keywords: chlorhexidine bathing, multidrug-resistant organism, infection, ICU.

Lack of antibiotic prescription could cause the bacteria mutated into organisms that led to multidrug-resistant infection. Preventing this infection at patient in Intensive Care Unit (ICU) should be a priority for health care provider because the treatment is difficult and costly. Chlorhexidine that has been widely known as antiseptic in health care setting shows promising protector effect from infection. This review will identify the efficacy of

daily bathing with chlorhexidine to prevent multidrug-resistant infection in the ICU. Five online databases were searched for the articles that meet with the criteria. Seventeen articles were included in this review. Daily bathing with chlorhexidine had a different effect for preventing infections caused by the multidrug-resistant organisms including methicillin-resistant straphylococcus aureus (MRSA), voncomycin-resistant

enterococcus (VRE), fluoroquinolone-resistant gram-negative bacilli (FQRGNB), carbapenem-resistant *Acinetobacter baumannii* (CRAB), and highly resistant Enterobacteriaceae (HRE). To enhance the protector effect in ICU, chlorhexidine bathing must be combined with the other approaches such as antimicrobial prescription and hand hygiene program. The future research related to bacteria resistant to chlorhexidine is needed to monitor whether this approach will effective following trend of infection disease in ICU..

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ISLAMIC NURSING CARE IMPLEMENTATION: A DESCRIPTIVE STUDY

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Keywords: Islamic nursing care, implementation, Islamic care, nurse.

Background: Patients, particularly those who are Muslim have the right to obtain nursing care according to their values and beliefs. Nevertheless, in its implementation, those patients are commonly have not yet received the care that they supposedly receive. Nurses who works in hospitals that embraced Islamic values as their fundamental pillars of the health care deliveries, have not been able to implement the Islamic nursing care optimally. Therefore, this study aimed to

explore the Islamic nursing care delivery in hospital.

Methods: A cross-sectional design was chosen to investigate the research question. A proportional sampling technique was used to approach the participants, resulting a total of 51 nurses who works in in-patient units participated in the study. A checklist which had been validated was used to collect data on the Islamic nursing care. This instrument consisted of 23 statements measuring nurse practice in Islamic nursing

care.

Results: More than half of the nurses (64.7%) demonstrated insufficient level of the Islamic nursing care implementation whereas the rest (35.3%) were identified to have good level of implementation.

Conclusion: The study indicate that not all nurses have implemented the Islamic nursing care optimally. In order to improve the nurse performance, it is suggested to supervise the implementation of the Islamic nursing care in the hospital.

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Spirituality, Quality of Life and Depression among Patients with Cancer in Lombok, West Nusa Tenggara, Indonesia

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Keywords: Cancer, Spiritual well-being, Quality of Life, Depression

Purpose: Cancer and its treatments can cause complex issues including physical, psychological and spiritual aspects. We aimed to examine the impact of cancer to the spirituality well-being, quality-life and depression among cancer patients in eastern part of Indonesia.

Methods: Our study was conducted between January-April 2018 among a sample of 100 cancer patients (stadium III and IV) who admitted to a curative

setting in the regional public hospital. All the participants filled three self-report questionnaires; the Spirituality Well Being Scale, the European Organization for Research and Treatment of Cancer Quality of Life (EORTC QOL), and the Beck Depression Inventory in addition to socio-demographic data. Pearson correlation was conducted to examine the associations between spirituality and depression, overall quality of life and quality of life domains (functional and symptoms).

Result: All of the participants (n=100) are affiliated with particular religions and most of them always conduct worships. Pearson correlation showed significant positive associations between spirituality and overall QOL ($p < 0.01$) and individual functional quality of life domains (physical, roles, emotional, and social). Spirituality was negatively associated with symptoms domains (fatigue, pain, dyspnea, insomnia, loss of appetite and financial difficulties). Higher spirituality was associated with lower depression ($p < 0.01$).

Conclusion: This study confirm that spirituality related with overall quality of life and depression and this reiterates the importance of developing spirituality-based intervention along with cancer care for this

population.

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Identification of Etiology The Nursing Diagnose: Risk for Infection at Diamond Mining Cempaka Banjarbaru, Indonesia

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Keywords: etiology; nursing diagnoses; risk for infection; diamond mining

Mining is one of the natural resources owned by Indonesia and the diamond mining is one such example. Diamond mining contained in South Kalimantan is a mainstay sector in the field of economy. Work accidents and skin disorders are one of the negative impacts of mining. Health problems are experienced by villagers who worked in the diamond mining area. The most nursing diagnose among workers in diamond mining is the risk for infection (154 times more). It is expected to help nurses more quickly determine the cause of the diagnoses. The purpose of this study was to identify the

etiology of risk for infection as nursing diagnose at diamond mining area, Cempaka Banjarbaru. Descriptive analytic design used in this study, and 101 samples were recruited with simple random sampling technique. Questionnaire with 19 items of risk factors of risk for infection was used to identify the etiology of nursing diagnoses. Data analysis used frequency distribution and percentage.

The result showed that risk factor of nursing diagnoses of risk for infection were smoking with 98 workers (97.02%), skin characteristic change (color, elasticity,

hair, humidity, nail, sensation, temperature) with 53 workers (52.47%), injury with 51 workers (50.49%), trauma/injury with 42 workers (41.59%), skin/tissue integrity change caused by damage of skin/tissue with 38 workers (37.63%), lack of knowledge related to avoiding pathogen exposure with 27 workers (26.74%), change of peristaltic movement with 18 workers (17.83%), fracture and burn with 11 workers (10.89%) and bleeding with 1 workers (0.99%). Conclusion: the dominant factor of etiology on nursing diagnosis of risk for infection among diamond miners is smoking.

The skin is the largest organ of our body, and can be said if the skin is a window of health changes that occur in the body. Knowing the symptoms of a disease of the skin is very important because the skin is the outermost organ and is the body's defense system. The skin is an organ in the human body that limits the external environment. One function of the skin is as an immune system that protects the body from foreign body attacks. Leather is the first stronghold of various threats that come from outside, such as bacteria. Langerhans cells found in the skin layer of the epidermis of the skin are part of the immune system. The skin has three layers, namely the epidermis, dermis, and subcutaneous. The epidermis is the outermost layer and functions as a protective layer. This layer is still divided into 5 parts. This layer is always replaced. The top layer will die and release. The time

needed for regeneration from the lower layer towards the uppermost layer (stratum corneum / epidermis) is about 3 to 4 weeks (18). In the physical or mechanical defense system, the skin and mucosa are the foremost defenses against infection (19). Keratinocytes as the top layer in the epidermis of healthy skin and intact mucosal epithelium cannot be penetrated by most microbes. In the epidermis of the skin and mucosal epithelium, intraepithelial T lymphocytes are also found (Abbas, 2012). These intraepithelial lymphocytes function on the host's body defenses by secreting cytokines, activating phagocytes, and killing infected cells (20). When visiting the location, it was seen that the miners were bathing in the holes in the excavation, the rest of the water was flowing into the river not far from the place. The hot sun that burns the skin does not become an obstacle for them to move. As a result, the miner's skin becomes dark due to prolonged sun exposure and submerged in water for long periods of time.

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THE NURSE PREPAREDNESS EXPERIENCE IN THE PSYCHOLOGICAL ASPECT OF EARTHQUAKE IN MUTIARA SUKMA MENTAL HOSPITAL WEST NUSA TENGGARA PROVINCE

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Keywords: Preparedness, Psychological Aspects, Earthquakes

Background: This study provides an overview of the role of nurses in earthquake preparedness in the Mental Hospital of Mutiara Sukma, West Nusa Tenggara province and provides information regarding implementation strategies that can be carried out by health workers both in preparation and responding to earthquake disasters. Besides that, psychological aspects are very important that must be prepared by nurses in dealing with earthquake disasters, so as to prevent the psychological impact on both themselves and victims.

Objective: To explore the experience of nurse preparedness in the management of psychological aspects after the earthquake disaster and explore the factors that influence nurse preparedness in the management of psychological aspects after the earthquake.

Method: This type of research is a qualitative research with a descriptive explorative approach. Data is collected by in-depth interview methods and observation techniques then analyzed based on emerging themes.

The number of samples was 5 participants.

Results: The results of this study indicate that the preparedness of 5 nurses at the Sukma Pearl Mental Hospital in the province of West Nusa Tenggara was very satisfying.

Conclusion: In this study, most of the roles of nurses have carried out their duties and obligations properly, due to the preparation of the institution in preparation for the earthquake disaster. All participants have been provided with training in handling emergencies. Mental hospitals as health care centers at the top level in efforts to reduce earthquake risk must be prepared with planning supported by the role of nurses in disaster management.

Nurses in sukma pearl psychiatric hospitals in West Nusa Tenggara Province have carried out their roles as nurses in disaster preparedness efforts because they have the knowledge and experience involved in disaster management. The roles that they can complete in the disaster plan include: 1) Making, Updating, and Implementing the Disaster Plan, 2) conducting risk assessments in the community such as creating hazard

maps and analysis, 3) conducting research on the impact of disasters such as raising community awareness and estimated systems earlier, 4) Following the Disaster Management Training Program, and 6) Having a personal preparedness plan, and family preparedness plan.

Research factors that influence the factors that influence nurse preparedness in the management of psychological aspects post earthquake disaster are factors in knowledge of disaster preparedness, attitudes towards disaster preparedness, policies and guidelines, plans for emergency situations, transportation systems, and resource mobilization.

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Influence of Maryam Prenatal on Labor Duration: a systematic review

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Keywords: Prenatal Maryam; Salat; Physical Activity; Prenatal Exercise; Labor Duration

The Extension of labor duration is associated with increased morbidity and mortality. Prenatal exercises have proven a positive effect on labor but still very low level of effectiveness against the labor duration. Salat has proven a positive effect on fitness, healthy and has a rehabilitative effect. Maryam Prenatal is a modification of prenatal basic exercise with postural bowing, sitting and prostrating like salat in Islam with dzikr. This systematic review aims to assess the effect of Maryam Prenatal on the labor duration. The systematic literature search with study criteria that examined physical exercise and salat for labor or health was carried out on the Pubmed, ScienceDirect and researchgate databases. Study quality was assessed by a tool of standard quality assessment of the quantitative study (QATQS). This

review received 4 intervention studies, 1 retrospective, and 4 observational studies. 5 articles showing positive results on reducing the labor duration and 4 articles on salat show positive results to the health. Our overall conclusion that the hypothesis of Maryam Prenatal positive effect on the labor duration with an increase in the effect size. Therefore, we recommend further research that considers the influence of Maryam Prenatal as new method pregnancy exercise on labor duration.

Quality Rating

To assess the articles used as samples in this review, a tool used as a measure of quality standards in the quantitative study is QATQS (EPHPP, 2010, 2017; Thomas, Ciliska, Dobbins, & Micucci, 2004), The

components are rated as follows: (1) selection bias that is how far the representation of the population were taken as samples; (2) study design; (3) the control of confounding factors; (4) the blind of sample and assessors; (5) instrumentation and data collection; (6) number and reasons for dropouts.

In studies using the intervention and observational component design blind of votes in points (4) does not apply because the researcher and the participants are very likely to know the results of randomization. The assessment results are classified as strong, medium and weak on each of these points and then considered again in its entirety by the provisions stronger if each component is no rank weak and intermediate, medium if there is one rank on the components weaker and weaker if there are two or more the ratings on a weak component (Dietz et al., 2016).

Data Ekstraktion

Extraction of data using tables that is commonly used is composed of investigators, designs, samples and subjects, methods of intervention, the results of the study, measurement techniques, time measurement and data analysis. Assessment at each study using QATQS.

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THE INFLUENCE OF “KANGAROO METHOD CARE” TO THE "BOUNDING ATTACHMENT" OF MOTHER AND BABY

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Keywords: Kangaroo Method Care, Low Birth Weight, Bounding Attachment

Babies with Low Birth Weight (LBW) are a group of babies at high risk. Babies experience various health problems. Problems related to physiological functions and interactions between mother and baby. Therefore, babies with LBW need special care properly and correctly. The kangaroo treatment method provides an opportunity for the baby to be treated together with his mother so that it will increase the bounding attachment between mother and baby.

The purpose of this study was to determine the effect of Kangaroo Method Care (KMC) on Changing Interaction between Mother and Baby in perinatology in RSUD Dr. Loeknonohadi Kudus in 2018. This study used a Quasi Experimental design with a design of two groups pretest posttest design, and sampling used a purposive sampling technique with a sample of 28 people. The results of the study found that there were significant differences in mother and child interaction (Bounding Attachment) in the mother group conducted by KMC with a group of mothers who were not performed KMC (p value = 0.002; α : 0.05). It can be concluded that there is an influence of kangaroo method care on mother and baby interaction (Bounding attachment) in the perinatology room of RSUD Dr. Loekmonohadi Hospital in 2018. It is recommended that mothers do routine kangaroo treatment for LBW babies.

According to Nelson Bounding is the commencement of physical sensory interactions between parents and infants immediately after birth, while Attachment is a bond that exists between individuals which includes the

outpouring of attention that is emotional and physical relationships that are familiar.

Bounding Attachments are the initial touch / skin contact between mother and baby in the first minute to several hours after the birth of the baby. In this process there will be a merger based on love and sincere acceptance from parents to their children and provide care support in their care. The need to be touched and touched is the key to primate instinct. (Sulistyawati, 2009).

The stages of Bounding Attachment according to (Marmi, 2011): Introduction to introductions (the stage of making eye contact, touching, talking, and exploring immediately after getting to know the baby), Bounding (attachment) and Attachment (affection that binds individuals with other individuals)

The purpose of Bounding Attachment is to improve the interaction process, help the growth and improve psychosocial development, intellectual and psychosexual intellectuals and to build the baby's trust in parents, communication and the quality of emotional relationships between postpartum mothers, fathers and babies as a family (Nugroho, 2014).

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The Nursing Practice in Rehabilitation Units in two European Countries

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Keywords: nursing, rehabilitation; European; Countries

There is a lack of information related to the differences in nursing practices between countries across Europe. To date there have been no studies published mapping nursing practices across Europe. The aim of the research is to compare the nursing practice in Spain and the United Kingdom (UK) in rehabilitation units. The design of the study was a multiple case study. Eight nurses from rehabilitation units of both countries were invited to participate in the study in 2014. The instruments for data collection used were in-depth interviews, non-participant observations and document analysis. Data were analysed using the support of the software ATLAS.ti. Nursing practices in rehabilitation units are classified into 10 categories: resources, procedures for

the administration of medication, techniques, patients personal care, health education, emotional support, evaluation and decision making, maintenance and supervision of the equipment, management tasks, documentation and interpersonal

communication. Differences between nursing practices exist despite both countries having similar nursing competences. Nursing practices within the rehabilitation unit in the UK are characterized by safety practices. The UK unit has a stronger safety culture, recognizing mistakes as an opportunity for improvement and implementing strategies to prevent them

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Analysis on the Level of Knowledge on the Prevention of Neural Tube Defects among Pregnant

Women in the Selected Barangays in Iligan City

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Keywords: Congenital anomalies, neural tube defects, hydrocephalus, anencephaly, microcephaly

Neural tube defects are congenital deformities that involve the covering of the central nervous system that starts during embryonic development when the neural tube fails to close completely. One of the most common types of birth defects which revealed a multifactorial in origin with contributions from both genetic and environmental factors. The main objective is to determine respondents profile, knowledge level on nature, prevention, and management of neural tube defects and its relationship.

The researchers used purposive sampling method, and descriptive correlational design to assess the level of knowledge of pregnant women regarding prevention of NTDs. The researcher constructed questionnaire and was used after being pilot tested to gather data to identified respondents.

Using frequency counts, percentages, weighted arithmetic mean and ranking the results showed that

most of the respondents have an average level of knowledge on its nature, prevention, and management of NTDs. However, majority of which belongs to younger age (0.06432), low educational level (0.25756) and no maternal history of NTDs (0.25792) than older individual.

Therefore, the researchers ruminates that it is necessary to teach pregnant women about NTDs, especially the factors that contribute to its occurrence. Health teaching is recommended for older respondents and to those who have a maternal history of NTDs. All clients of interest must be educated, regardless of educational status, as the result have showed that even highly educated respondents have less knowledge of the aforesaid congenital anomaly. Distributions of magazines, brochures and pamphlets are vital instruments to enhance their knowledge and to orient them about preventive measures to preserve the life of the mother and the child.

Hypertension Management on Patient with Hypertension In Puskesmas Bantul I, Yogyakarta,

Indonesia

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Keywords: Hypertension, management

Hypertension is cardiovascular disease that need right hypertension management because it can prevent serious complications. Hypertension managements are diet management and stress management.

The aim of this research is to know the description of hypertension management include diet of low salt and low fat, and stress management in hypertensive patient in Puskesmas Bantul I.

This research design was quantitative descriptive with crosssectional and data analysis used univariate. Sample of this research was 48 respondents. Sampling technique was purposive sampling. Research instrument

used diet recall and questionnaire stress management of hypertensive patient.

Result showed that the majority respondent has good diet hypertension of low salt (58,4%), enough (10,4%), and less (4,2%); good diet low fat (62,5%), enough (27,1%), and less (10,4%); also respondent has good stress management (95,8%) and enough (4,2%).

The majority of hypertensive patient in Puskesmas Bantul I have good hypertension diet (diet of low salt and diet of low fat) and good stress management. Furthermore, hypertensive patients able to maintain diet management and stress management to keep blood pressure to be controlled.

FACTOR RELATING TO PARENTING CHILDREN 1-3 YEARS BY USING ELECTRONIC MEDIA

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Keywords: electronic media, children 1-3 years, parenting children 1-3 years

This cross-sectional descriptive study research aimed to study the prevalence of parenting children 1-3 years by using electronic media and to study factors relating to parenting children 1-3 years by using electronic media. A sample of 196 cases were drawn from parents or guardians of children 1-3 years at Ubon Ratchathani province, Thailand using cluster sampling method. The research instrument were questionnaires of knowledge, attitude and practical for parenting children 1-3 years by using electronic media. Data were analyzed by descriptive statistic and Pearsons product moment correlation coefficient.

The findings in this study revealed the followings: (1) the prevalence of parenting children 1-3 years by using

electronic media was 62.24 percent and the most of all allowed children 1-3 years to using electronic media up to 30 minutes in a day 33.70 percent; (2) there were negative relationships between parenting children 1-3 years by using electronic media and relationship with child, age and type of family; (3) there were not any factor relating significant to parenting children 1-3 years by using electronic media.

Even though there is no clear confirmation about the disadvantages of parenting children 1-3 years with electronic media, healthcare providers should be giving advice to parents or guardians how to use appropriately electronic media in children 1-3 years for protect disadvantage in the future.

Factor influence sleep quality of pregnant women in Yogyakarta Indonesia

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Keywords: anxiety, sleep quality, low back pain, pregnancy

Most of the pregnant women had sleep disorders during pregnancy. The factors that can cause sleep disorder are a physical and physiological adaptation. This study aimed to identify sleep quality experienced by pregnant women and factors associated with it. A cross-sectional study was designed to collect the data from 161 pregnant women who are not having a complication during pregnancy and complete the questionnaire. The data were taken by purposive sampling in primary health care Kasihan 1 Tamantirto Bantul Yogyakarta. The data were collected through Pittsburgh sleep quality index (PSQI), Zung-self anxiety rating scale (ZSAS), and numeric rating scale (NRS), then analyzed using Chi-square and multiple logistic regressions. The majority of the respondent had poor sleep quality (78,9%), and factors that related to sleep quality are anxiety and low back pain. Health care should pay attention to anxiety and low back pain in pregnant women and provide some educations to prevent and treat anxiety and low back pain during pregnancy

The results showed that there was no relationship between maternal age, gestational age, and pregnancy experience. This study is in line with the research of Xianglong et al. (2017), which states that there is no significant relationship between parity, maternal age, and gestational age with maternal sleep quality.

Poor sleep quality is experienced by all pregnant women who have moderate anxiety levels (100%), besides that pregnant women who do not experience anxiety also have much worse sleep quality (70.5%). The statistical test results p-value <0.05; this indicates that there is a relationship between the level of anxiety and the quality

of sleep for pregnant women. The result of study supported by Polo-Kantola, Aukia, Karlsson, Karlsson, & Paavonen (2016) anxiety had correlation with sleep quality of pregnant women.

Sleep quality of pregnant women who have moderate LBP levels has poor sleep quality (92.9%), and pregnant women who do not have LBP also have poor sleep quality (70.6%). The statistical test results p-value <0.05; this means that there is a significant relationship between LBP and the sleep quality for pregnant women, this is in line with the study of de Sousa et al. (2015) that there is a relationship between low back pain and the quality of sleep in pregnant women. Marin, Cyhan, & Miklos (2006) and Axen (2016) added that the incidence of low back pain could lead to sleep disorders.

Individuals who have low back pain have more alpha EEG waves in NREM sleep, which can interfere with deep sleep. The presence of painful stimuli from injured muscles due to lower back pain causes abnormalities in alpha EEG waves so that sleep becomes disrupted, and sleep quality becomes worse (Springer, 2013).

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Satisfaction of stakeholders on National Health Security system in Health Region 10, Thailand

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Keywords: Satisfaction, stakeholders, National Health Security system, Health region 10

This research was study satisfaction of stakeholders on National Security system in Health region 10, Thailand. The data were collected by questionnaire. Data analysis was done by using descriptive statistic.

The results of this study indicated following among 304 service providers group were between 22-59 years old and 24 client age between 15-77year old, Perception of the national insurance rights among service providers group and client group were averaged 90.67%, 76.13%, Medical care among service provider and client group were averaged 85.38%, 77.10% respectively. And satisfactions on national health system were revealed among providers group was average 81.05% and client group was 79.60%, the least of satisfaction among provider group was reduce inequality in health care service and universal coverage, and client group was help the most people got health care service , Universal coverage and disadvantaged be able to access health care services.

Most of the health care providers were public health officers and 1 of 3 graduate bachelors and client groups graduate from high school. More sample can be used for national health security to explain the case of client for experience in national health system not only to cure but to give information or other collaboration. Most of hospital staffs coordinators to giving information and requests, or recording data with news from the National Health Security Office from website followed by

public health officer and television, and client group which received data from public health officer followed by television and village health volunteer consist of Preeda Taearak, et al5 publish data on perception in a group of students village of public health Sirintron Khonkean province from television and hotline 1330, Which shows that the service provider information that was specific and there are a variety of things, the most of which will be informed from the website, Which was Thai government policy was “Thailand 4.0” including public health connection in resource management. So anyway in client group found that access to news by public health officer. Which shows that Service recipients may receive news when they or their relatives are sick. Need medical treatment. Therefor in the same in 2 groups but difference in-dept for data or communication. The good satisfaction in 2 group because National health system was a health insurance system that allows disadvantaged people to access health care systems without to pay medical expenses Resulting in people saving medical bills and could access services for more levels

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FACTORS THAT INFLUENCE OF SATISFACTION INPATIENTS AT IBNU SINA BOJONEGORO

HOSPITAL

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Keywords: Satisfaction patients, Factors satisfactions patients

Background: Patient satisfaction is very important in administering health services, because patients have the right to choose services. Hospital as one of the health service institutions needs to measure satisfaction and the factors that influence it. This study aims to determine the effect of factors on patient satisfaction in service at Ibnu Sina Bojonegoro Hospital. **Aim:** This study aims to determine the effect of dimensions of factors on the satisfaction of inpatients at Ibnu Sina Bojonegoro Hospital. **Method :** This research uses a quantitative method with a cross sectional approach. The study was conducted at Ibnu Sina Bojonegoro Hospital in July 2018. The population in this study was 830 patients enrolled inpatient with a sample of 89 patients enrolled inpatient care selected by simple random sampling. Independent variables include understanding factors, tangible factors, reliability factors, responsiveness factors, and assurance factors while the dependent variable is patient satisfaction at service.

Result: Results of Analysis Factors that influence the satisfaction of inpatients. Factors of understanding (95% CI = 0.131 to 0.944; P = 0.010). Tangible factor (95% CI = -0.644 to 0.320; P = 0.506). Reliability factor (95% CI = -0.487 to 0.360; P = 0.766). Responsiveness Factor (CI95% = -0.471 to 0.206; P = 0.438). Assurance factor (CI95% = -0.435 to 0.488; P = 0.911). and satisfaction analysis, 58.4% said they were not satisfied, 41.6% said they were satisfied with hospital services. it can be concluded that there is a relationship between factors of understanding with patient satisfaction (95% CI = 0.131 to 0.944; P = 0.010). **Conclusion:** Factors that influence patient satisfaction at hospitalization are an Understanding factor. because understanding factors can increase patient knowledge, that it can improve the quality and satisfaction of patients at the Hospital.

Patient satisfaction is a very important thing in the implementation of health services, because patients have the right to choose to use the services that are considered

of quality so that they can satisfy their desires. One way to measure the quality of services is to measure the level of patient satisfaction, this is important as an ignorance in improving services in order to provide optimal satisfaction (Ramadhan, 2009).

The main purpose of analyzing patient satisfaction as service users is to determine the extent of satisfaction and to measure customer satisfaction. It can also be used by the Hospital for decision-making policy tools to improve the performance of hospitals or health centers, tools for developing strategies or marketing service products. Units that often receive patient complaints must receive special attention from the management of hospitals or health centers to improve service quality, can also be used as a tool to monitor or control the daily activities of staff who provide services to patients and tools to achieve the mission that has been determined by the Hospital or Health Center, which is to obtains public trust through patient and family satisfaction (Muninjaya, 2004).

Based on previous research by Nova (2010), 78.9% said they were satisfied at PKU Muhammadiyah Hospital in Surakarta, while 21.1% said they were not satisfied with the services provided at the Muhammadiyah Hospital in Surakarta. Based on a preliminary survey at Ibnu Sina Bojonegoro Hospital from 30 respondents, 64.7% said they were satisfied with the services provided by the Hospital and 35.3% said they were not satisfied with the services provided by the Hospital.

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Heritage and the local community engagement: The case of Kotagede, Yogyakarta-Indonesia

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Keywords: local; community; engagement; cultural; conservations; heritage

Indonesia has been prominent as a countries in South East Asia with the richness of culture. One of the important heritage sites in Yogyakarta province is Kotagede heritage site. Kotagede is a historic neighbourhood in Yogyakarta, Indonesia. Culture has been so important for the society and creates public space. During the May 2006 Java earthquake, many old buildings were destroyed and directly revitalized through Pusaka Jogja Bangkit! program, carried out by Jogja Heritage Society, the Center for Heritage Conservation, Department of Architecture and Planning at Gajah Mada University, the Indonesian Network for Heritage Conservation, ICOMOS Indonesia, and other supporting institutions. Government of Indonesia enacted the law to preserve cultural heritage. The Law No. 11/ 2010 on the Culture and Regulation and No. 6 / 2012 on Cultural Heritage. Therefore, the DIY Regional Government has a legal system to carry out the conservation efforts of general heritage and cultural heritage in particular. This study will evaluate the awareness of the local community of historical heritage sites and review the involvement of the local communities heritage sites in Kotagede Yogyakarta. This study employed a qualitative approach where in-depth interviews were conducted with 10 member of local communities of Yogyakarta municipality and observations.

From the data collection, it shows that the degree of engagement of local communities toward the heritage in Kotagede is high. According to Yung and Chan (2013) that Community participation in heritage projects positively influences the sense of belonging among residents, assists people in developing social networks with others both within and outside their community, and instils an appreciation of the heritage assets of the local area. From the research also found that the local community are concerned with the issue of heritage conservation and preservation and perceived them as a big issue. As stated by Rasoolimanesh, Badarulzaman, & Jaafar (2013), the participation create a sense of ownership, trust and credibility among community members.

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Parliamentary threshold and cleavage among political parties in coping with the 2019 Indonesian election

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Keywords: parliamentary threshold; political parties; the 2019 election; ideology; Indonesia Conference

This paper examines the response of Indonesia's parties in dealing with the parliamentary threshold in the 2019 election. It has a twofold objective: to discern the development of political ideology in Indonesia's post-New Order regime and to identify the current political cleavage among political parties particularly between Islam and secular parties or major and small parties. Methodologically, it is qualitative research by applying the in-depth interview and online news collection as data-gathering technique. The research finding demonstrates that the political ideology in recent Indonesia is waning and towards the end of ideology. If it is so, it can harm the party system in Indonesia and will be what so-called as "depoliticization of party" because of the lack of people trust. Some evidence can show it. First, the party's response to the parliamentary threshold issue is no longer considering ideological and organizational motives, but due to pragmatic goals.

Second, several Islamist parties are in one coalition with secular parties in term of responding to the parliamentary threshold. Likewise, small parties have the same position as major parties in coping with such an issue. It indicates that the ideological contestation is waning and submerged. This paper also rejects Mietzner's (2013: 239) view which argued that Indonesian parties have an ideological foundation. In contrast, this is supporting Ufen's (2009) thesis who posited that the political ideology is feeble.

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Development of transmigration area development viewed from transmigration community participation

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Keywords: contraction of KTM and transmigration community participation

The development of KTM development can be seen from one of the participation of the community, but the community in KTM often faces many obstacles in participating. This study aims to examine that the development of transmigration area development is very necessary and an important part in it.

This analysis uses a qualitative approach with a descriptive type and utilizes secondary data. Based on

the relationship between the variable groups, namely: the level of education, place of business, community involvement, and perceptions of the influence of KTM on the socio-economic community both with the level of participation, community in KTM development, as well as with the field of community participation in KTM development, as well as in development KTM shows a connection in the progress of KTM development.

Design of e-tourism system batang heaven of Asia as a tourism marketing

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Keywords: E-Tourism, batang regency, batang heaven of Asia

The condition of the Batang Regency region is a combination of coastal areas, lowlands and mountains that have enormous potential for agro-industry, agro tourism and agribusiness. The southern part of Batang Regency has the potential to be developed into a development area based on agro-industry and agro tourism. However, the limited information makes tourism in Batang Regency not yet well known among tourists, so the number of tourist visits to Batang Regency has not experienced a significant increase, and even tends to decline. In achieving increased tourist visits to Kab. Batang is needed for the use of information technology in the tourism sector, which is put in the form of electronic tourism, better known as E-Tourism. This research is a research and development (research and development) research using the System Development Life Cycle (SDLC) methodology. This study aims to develop tourism destinations in Batang Heaven of Asia,

through the Tourism Information System (E-Tourism) as a tourism promotion media. In the opinion of (Buhalis, 2005) e-tourism is the maximum utilization of information and communication technology in tourism management so that the performance of the tourism industry is more effective and efficient. This study produced an E-Tourism design that can facilitate visitors / tourists in exploring tourist destinations in Batang Regency, through this system, hotel bookings and ordering of souvenir products can be done online with the E-Commerce concept.

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Strengthening network-based regional tourism: case study of networks between sleman regency government and PT. Cikal Bintang Bangsa at the "festival of light of Kaliurang"

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Keywords: tourism, networking, festival of Light Kaliurang.

One of the roles in increasing regional income is from regional tourism development. Kaliurang is an area in Sleman Regency. Sleman Regency is one of the regions that has considerable potential in the tourism sector. In the area, there are many tours that offer natural and artificial tourism. Tourism Object The Festival Of Light Kaliurang is a family tour that offers entertainment with dancing fountains and beautiful lantern lights. This event is held every period twice a year, namely on Eid holidays and Christmas holidays. The Festival Of Light Kaliurang event has a different theme each year. In identifying it using the theory of network processes and network relations patterns. The research method used is descriptive qualitative. Data collection techniques used were interviews and documentation sourced from these data from the Sleman Regency Tourism Office, Cikal Bintang Bangsa Company, and the Hargobinangun

Community at the Kaliurang Festival of Light. The results of the research is in the collaboration process of Sleman Regency Tourism Office and Cikal Bintang Bangsa Company to decide and initiate a collaboration network, because both parties have the same goal, namely one of them is to increase the potential of tourist visits in the Kaliurang (c.f. Zanna, 2016). The two parties made a new innovation that had never existed before, by creating tourism objects in the afternoon until evening. In addition, initiation in networking is needed, because the Sleman Tourism Office admits it lacks competence, lacks efficiency in financing, and Human Resources and inadequate budgets.

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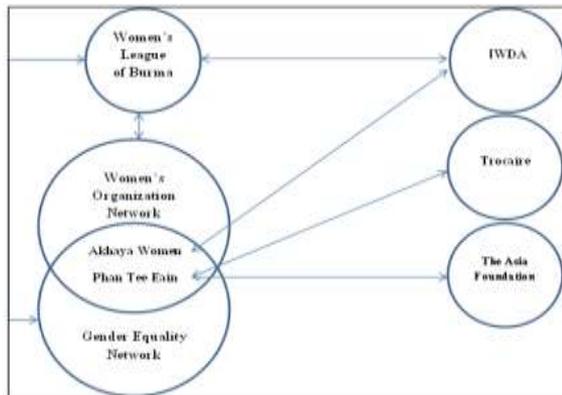
The transnational advocacy in increasing women’s representation in Myanmar’s parliament

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Keywords: women’s representation, transnational advocacy, Myanmar, boomerang pattern, logic of appropriateness.

The women in Myanmar have been underrepresented in all aspects, including in the parliament at the union and state/region level. However, the number of women’s representation in parliament at national and state/region level was significantly increasing from 3.7% in 2010 to 10.08% in 2015. The international pressure was signaled as the cause of the increasing number of women’s representation in Myanmar’s Parliament. This article is aimed to explain the transnational advocacy in increasing women’s representation in Myanmar’s Parliament.



In order to analyze the process of advocacy, the

authors used the Boomerang Pattern from Keck and Sikkink in explaining the Transnational Advocacy Networks (TANs). Besides, in understanding the change of state behavior, the authors reiterated the logic of appropriateness by March and Olsen. The data analyzed in this research was the secondary data using library research method.

This research signified that the advocacy process for increasing the number of women in Myanmar’s Parliament is: 1) The local women’s movements establish the transnational network with the foreign NGOs due to a non-functioning channel to the government and; 2) The INGOs set the issue in international level and push some foreign states and the United Nations to pressure Myanmar. In return, the state changed its behavior and began to increase the women’s representation in the parliament. In addition, the result is signifying the inapplicability of the quota policy theory postulated by Hughes, Krook, & Paxton (2015)

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The value chain holistic model of industrial *ulos* weaving fabric

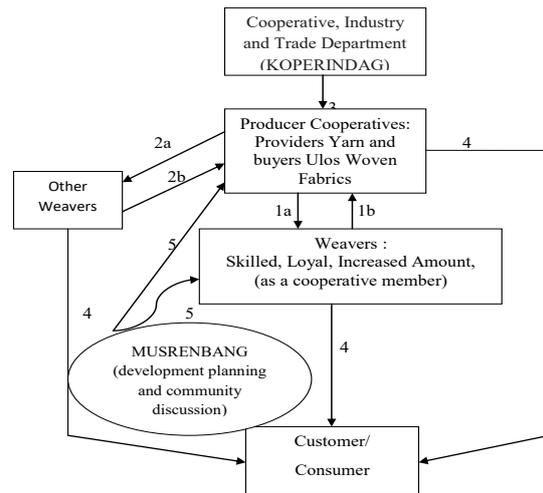
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Keywords: Value chain, Holistic, SWOT analysis, Ulos woven fabric.

The research objective is to create a holistic model of value chains that can enhance tangible and intangible benefits for stakeholders in Ulos Woven Fabric Industry in Pematang Siantar City, Simalungun, Samosir, and North Tapanuli Regency. The specific target is to inventory all activities that occur in all parties involved in the series of them, like evaluate existing activities whether added value or not value added. Data collected were inventoried came from informants like weavers, entrepreneurs, sellers, consumers, and KOPERINDAG (Department of Cooperatives, Industry, and Trade), with observations and submitting open questions related to activities, problems, and solutions of them, like their advantages related to the ulos woven fabric industry in North Sumatera. SWOT analysis is used and the Ulos woven fabric industry has produced Strength-Opportunities strategies because External-Internal factors show score numbers > 2. The proposed holistic value chain model is to increase quality production capacity with strong capital by forming Producers Cooperative. It will provide quality and inexpensive yarn, new product development designs that are creative and skilled by weavers. The implementation of the strategy is accompanied by coaching and training from the Cooperative, Industry and Trade Department, like the role of Development Planning and Community Discussion (Musrenbang). Indeed, all stakeholders must actively participate in facilitating the problems of the Ulos woven fabric industry group, by incorporating the program into the village budget plan or urban village

budget or into the village development work plan (Musrenbang, 2015)



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The website content strategy for Dian Nuswantoro university

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Keywords: university of Indonesia, website, content strategy, Dian Nuswantoro university

Dian Nuswantoro University is famous because of its technology information. It becomes the unique selling point. Nevertheless, in maintaining its website, Dian Nuswantoro University is still in the rank number 31 based on the July 2018 Webometrics. Meanwhile University of Indonesia is presented as the highest rank. The Webometrics bases its rank scoring on the presence, impact, openness, and excellence. Eventhough the information and display management are not the main point for scoring, but the content strategy pattern of the highest rank university can be a good sample for Dian Nuswantoro University to fix its rank in the near future.

This is the second research that relate to the previous

research about the strategy of University of Indonesia. After the anlysis was formulated, it can be applied as the result of this research by adapting it on the Dian Nuswantoro University. The aim of this research is to produce the content strategy development for Dian Nuswantoro University. This is a quantitative research by using the content analysis method. While the theory is The Positioning Strategy. The unit analysis of this research is the websites of Dian Nuswantoro University and the website of University of Indonesia. The results shows that as an academic institution, Dian Nuswantoro University needs to shift its strategy into functional concept approach.

Advantages and disadvantages of incumbent candidates in the local elections in Indonesia

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Keywords: incumbency, electoral democracy, media, corruption, voters

Studies on incumbency are dominated by Western scholar studies by employing quantitative approach to see incumbency trend at congressman and senator elections. The gap of that academic research so far has given wider opportunity for incumbency studies in Indonesia as a new democratic country with a very complex electoral process. By conducting field research and partly ethnographic approach, this paper explains selected local elections cases which are relevant to incumbency literature and analysis. The results of this study indicated that incumbency candidates are facing both opportunities structure and disadvantages caused by

embedded factors that are candidate profile, bureaucracy power, capital access, and provided information, and also the dynamic external factors which consist of: protest voters, political parties, corruption issues, etc. This also became an alternative answer to why many incumbent candidates were defeated in concurrent elections in 2015 and 2017.

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The effect of social media and peer group on the SPIRIT character formation of the students

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Keywords: social media, peer group, and SPIRIT characters' formation.

The aim of this research is to accommodate the perceptions of the students on the influence of the social media and peer group to the SPIRIT characters building. The method that be used in this research is by distributing questionnaires to the respondents and then data obtained were processed quantitatively with path analysis. The result showed that social media did not have significant influence, because it only accounted for

15%, while the effect of peer group on the SPIRIT character building is also not significant, which amounted to 17.8%. It can be concluded that social media and peer group have no significant effect on the SPIRIT character building. So, it is very necessary to deepen this study in order to know the significant effect to the SPIRIT character building.

The effect of Pancasila education and civic education on nationalism character of the students

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Keywords: Pancasila education, civic education, and nationalism character.

The main objective of this research is to observe the extent of students' understanding of Pancasila Education and Civic Education towards the formation of nationalist character. For this reason the method used is a quantitative research method which is carried out by submitting a questionnaire to the respondents and then completing it using path analysis.. The results showed that Pancasila Education has no significant influence. It can be seen on the

amounted 15,8%, while the effect of Civic Education on the Nationalism of the students is significant, which amounted to 58.6%. It can be concluded that Pancasila Education has no significant effect on the Nationalism character of the students, while Civic Education has significant effect. From the results of this study it became clear about the study of what types of education had a significant influence on the formation of nationalist character for the students.

Ladies gym: A mechanism disciplining woman's body and violation of social media privacy

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Keywords: disciplining body; social media; ladies' gym; woman; privacy violation

A fitness center called Elise Ladies Gym is specifically aimed for female consumers. The owner acknowledges there is a special need for women especially those who wear hijab to have exclusivity, so they can do their exercise comfortably without being seen by men. But in reality this fitness center then uploads various photos and videos of the activities of its customers while they are exercising at some social media for advertisement purposed. So that ultimately the privacy they have been promised before actually not fulfilled. The purpose of this paper is to see how women interpret their body shape and how the discipline of a woman body mechanism happened in the case of ladies' gym.

This research also looks about how social media plays its role in this mechanism process. This research uses a qualitative research method of obtaining data through observation, and interviews. In this study it was concluded that women have the desire to have an ideal body shape. This self-disciplinary process is carried out like a closed training camp. Institution is one of the perpetrators of this thinking, but on the other hand it is actually only used as a marketing trick. The economic benefits are then obtained by inculcating this engagement through conventional mass media and social media.

Study of the existence of retail small traders to growth modern market in Labuhanbatu regency, north Sumatera

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Keywords: retail, small trader, modern market, economic growth, Labuhanbatu. government regulation

The purpose of this article empirically wants to examine the existence of traditional markets towards the growth of modern markets and provide solutions for traditional markets (small traders) in order to be able to compete with the existence of modern markets. In this study, the author tried to describe the events that became the center of research without giving special treatment to these events. This research is carried out around the community that is close to modern markets and not far away from traditional markets (Gelugur Market, Pasar Lama, Sigambal Market and Aeknabara Market) in Labuhanbatu Regency in the period of four December 2018-March 2019. Data collection techniques of this research are interviews and field research using primary data (questionnaires) and secondary data (supporting). The sampling method uses probability sampling techniques, namely Simple random sampling is the simplest technique taken randomly, regardless of the level in the population. Samples are traders whose business location is 500 meters from the modern market or live directly receiving the impact of the modern market, amounting to 45 respondents. The conclusion of the results of this study is that the implementation of Government Regulations concerning the Establishment of Modern Markets should have been regulated by a Presidential Regulation No. 112 of 2007 and

Permendagri No. 53 of 2008 was made as an effort to protect entrepreneurs, especially traditional traders, but in some areas it has not been effective. This is because the synchronization of central and regional policies has not been implemented properly with regard to regional demographic constraints. This is supported by the large number of studies (e.g. Sasana, 2013; Sarwoko, 2008; Sasanto and Yusuf, 2010) taking the topic of the existence or existence of traditional markets in various regions illustrating that the role of traditional markets is so great for regional growth especially the welfare of traders compared to modern markets that emphasize the benefits to their owners.

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The analysis of change profession of society in roundabout of industry perceived from the effective of insight from district of Karawang, West Java, Indonesia (study in village of Sirnabaya, subdistrict of East of Telukjambe)

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Keywords: change profession, corporation, industry

In Village of Sirnabaya, Subdistrict of East of Telukjambe, District of Karawang are many industries construction, because the land of agriculture is marginal so it is not productive if use to agriculture activity. The goal of this research is to know the effect of insight from District of Karawang in anticipation to arrange or change profession problem. The method of this research is qualitative descriptive, gathering data technique like observation and structure of the interview. The

result of this research to know that the effectiveness of tactics and technical insight that facilitation to arrange or change profession problem there are into Peraturan Daerah Nomor 1 Tahun 2011 that followed with Peraturan Bupati Nomor 8 Tahun 2016 is in 2017 the District of Karawang can job as much as 29.440 peoples from 30.534 peoples in all of the industry in District of Karawang.

Culture behavioral tolerance of worship between ormas and groups islam in mosques: Study of cultural psychology

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Keywords: culture of worship tolerance, ORMAS, and group.

The purpose of this study was to determine the local wisdom of cultural behavior tolerance in the Grand Mosque of Az-Zuhud Petanahan, Kebumen, Indonesia. This study includes qualitative research into ethnographic research categories. Research data collection uses triangulation, documents, and interviews. The five informants consisted of teachers, Mosque administrators, representatives from Muhammadiyah ORMAS, NU, and Salafi group.

The results showed that in order to achieve religious worship behavior in the Mosque between ORMAS, there was a set of self-awareness for itself to implement tolerance in cognitive and affective domains. The application of religious tolerance in Mosques in the field of knowledge consists of collective action, maintaining harmony, non-discrimination, joint Mosques, parenting, cooperation, my actions my

choising, your actions your choising, nature. The application of religious tolerance in Mosques in the affective domain of having an open nature, not hating each other, not having a fanatical feeling, dakwah with ORMAS is an individual choice, respecting local culture, not feeling the most righteous (Suryana), respecting each other (Yusuf, 2013), and not imposing a will (Rumagit, 2013).

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A systematic review of digital literacy training for high school students

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Keywords: digital literacy training; high school students; systematic review.

The rise of false news (hoax), hate speech, access to negative content, and misuse of internet as a crime media indicated a low level of digital literacy, especially in the teenager and young adult as the age group with the most access to the internet in Indonesia. Digital literacy, the ability needed to compete in the Information Age, is important to be taught to the younger generation since high school level where the cognitive level of the student is likely to have been advanced. One method to teach this skill is through training. This study was conducted to find out topics of digital literacy training in high school students who had done previously. The method used was systematic literature review on six research databases. The results obtained were five topics, namely knowledge of characteristics of digital world (e.g. Bawden & Robinson, 2002), ability to choose sources of information (e.g. Angel & Tewell, 2013), ability to evaluate information (Cecha-Romero, 2016), ability to produce content (e.g. Kim, Jung, & Lee, 2008) and prevent of

problematic internet use (e.g. Walther, Hanewinkel, & Morgenstern, 2014). In terms of training methods, findings indicated that methods used to improve digital literacy of high school students include lectures, discussions, playing video games, producing content for blogs, project-based learning, and interactive workshops.

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Performance management measurement antecedent and public sector organization performance

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Keywords: performance management, antecedents, performance, public hospital.

This research begins several studies of management practices and how antecedents affect the performance of public hospital. The research hypotheses were tested using the survey data from 13 public hospitals in South Kalimantan, Indonesia. Pearson zero-order correlation was used to analyze hypothetical relationships. By using SPSS 23, the regression test is done by first the Classical Assumption test. The results of this study found that certain antecedents such as performance measuring and

institutional culture have significant positive association with public hospital. Thus, this study provides an opportunity for public hospital to redesign, redefine, and formulate policies for improving their previously unheartening performance. This research is also a recommended that more performance management mechanisms are needed to complement and improve the public sector efficiency.

The moderating effect of Leader Member Exchange (LMX) on the influence of psychological uncertainty towards job satisfaction and turnover intention

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Keywords: organizational changes, psychological uncertainty, LMX, job satisfaction, turnover intention

This research aimed to analyze the effects of psychological uncertainty perceived by employees on job satisfaction and turnover intentions due to organizational changes. It also examined the moderating effects of Leader-Member Exchange (LMX) on the impacts of employees' psychological uncertainty towards job satisfaction and turnover intentions. The research data were collected using questionnaires distributed to the employees working in three hospitals in Yogyakarta Province. A total of 193 questionnaires could be analyzed with Moderated Regression Analysis (MRA) using SPSS version 21 application. The results of this study indicate that psychological uncertainty negatively influences job satisfaction and positively influences turnover intention. Additionally, LMX is proven to be able to moderate the positive effects of psychological uncertainty on turnover intention, yet it cannot moderate the negative effects of psychological uncertainty on job satisfaction. The results of this study also indicate the perceived of psychological uncertainty

experienced by hospital employees is very high, but their turnover intentions are low. It can be analyzed labor market in Indonesia is limited, so employees will not turnover. his research proved several previous studies which stated that psychological uncertainty negatively influences employees' job satisfaction (Rafferty & Griffin, 2006; Nelson et al., 1995; O'Driscoll & Beehr, 1994; Schweiger & Denisi, 1991).

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The development strategy of village owned business in Merbau village

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Keywords: development strategy; IE matrix; peatland; SWOT matrix; village owned business

This study aims to identify and formulate internal and external factors, and formulate alternative development strategies of Village Owned Business in Merbau Village. The basic method used is analytical descriptive method. The location of study was conducted by purposive method, namely in Merbau Village Bunut District Pelalawan Regency Riau Province and the informant conducted by key informant. Data analysis method used is IFE Matrix, EFE Matrix, IE Matrix, and SWOT Matrix. Results of the study based on IFE matrix scores are known to be the greatest strength is the existence of good relations between the management and the village government and the biggest weakness is the limited management resources in management. EFE matrix score shows that the biggest opportunity is the potential and creativity of the community can still be developed and the biggest threat is low community participation. Based on the IE Matrix analysis, the development of

Village Owned Business Merbau Village in cell II which is growing and developing with strategies that can be developed is intensive and integrative. The alternative strategy for developing Village Owned Business was formulated in the SWOT Matrix which produced several alternative strategies with combination of SO, WO, ST, and WT.

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Corporate CSR communication and media communication
(case study: PT Holcim Indonesia Tbk Cilacap plant Indonesia CSR program and delegation of
the European Union Malaysia)
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Keywords: CSR, media, corporate communication,

In implementing CSR programs, communication activities are important things to do. This research is qualitative research. The research method used to describe the problem is that it is going to be observed. The results showed that the motives of implementation for the CSR program of PT Holcim Indonesia Tbk Indonesia Cilacap Plant and Delegation Of The European Union Malaysia is Socially Responsible Business Practices (business practices that have social responsibility) where the company carries out business practices by remaining socially responsible through capacity building by providing training and assistance to the community recipients of CSR programs. PT Holcim Indonesia Tbk Cilacap Plant Indonesia and Delegation of the European Union Malaysia both communicate CSR programs to beneficiaries of the program with an interaction strategy, namely two-way communication. The communication media of CSR of PT Holcim Indonesia Tbk Cilacap Plant Indonesia with, namely community social forums, namely RT (neighborhood groups)/ RW (community groups) meetings, social

gathering, communal quran reading etc. In contrast to the Delegation of the European Union to Malaysia CSR communication media used are online media such as official sites because they will be more easily accessed by various stakeholders spread across various countries. Based on the findings of the research, the CSR communication of PT Holcim Indonesia in the Independent Waste Bank CSR program uses an interaction strategy by demonstrating the two way communication process that can be carried out by the company and encourages to enhance stakeholder dialogue and thereby improve understanding of stakeholder expectations (Morsing, 2010).

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An effective security government: A lesson learned from Malaysian policy on illegal migrants

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Keywords: security, illegal immigrant, Malaysia, content analysis, realism

In the past few decades, the Malaysian government has seen serious securitization related to the threat posed by illegal immigrants. This perception arose due to a flood of illegal immigrants in Malaysia have begun to show a negative impact. For example, many of the illegal immigrants are involved in crime and there is a strong suspicion of threats to Malaysia's national security. This policy is considered effective and it has been proven that the issue of foreign migrants has become a serious discourse in the Malaysian community and government. Therefore, it is interesting to see how the Malaysian government behaves related to securitization in the context of the narrative of the law. This kind of study is still rarely done, although it is critical, since it is basically the real attitude of a country in fighting for its national interests. By using a qualitative and quantitative approach, this research makes efforts to explore the kinds of policies implemented by the Malaysian government, especially during Najib Razak administration, in securitizing the issue of illegal immigrants. This aims to answer the fundamental questions posed by the theory of securitization regarding who the securitization actors are, why, for whom, and what the results are. The use of the realism paradigm in

the policy of handling illegal immigration in Malaysia can be seen in the form of the use of the arrest process, coercive punishment, and the full power of the state, especially from the Malaysian federal government in regulating the policy. In addition to this form of punishment, guarding the area and raids is a policy that has been previously implemented in coercive handling of illegal migration (Kassim & Haji Mat Zin, 2011; Kanapathy, 2008). Apart from the various controversies and consequences resulting from the implementation of the policy, the Malaysian government is considered successful in properly controlling and managing illegal immigrants.

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The idea of Muhammadiyah youth movement on peace discussion: A content analysis

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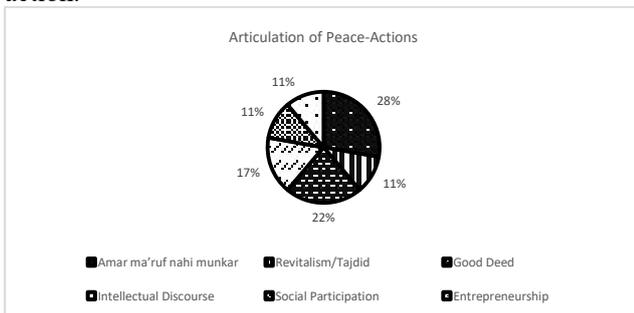
Keywords: Muhammadiyah youth, peace movement, content analysis, social harmony

This article describes the role of the Muhammadiyah youth generation in building peace in Indonesia. The peace discussion in Muhammadiyah youth generation is important to explore the behavior of Muhammadiyah for developing social harmony in Indonesia in the future. The research method used content analysis to understand peace construction idea on 4 statutes of Muhammadiyah and Muhammadiyah's youth movement such as *Pemuda Muhammadiyah*, *Nasyiatul Aisyiyah*, *Ikatan Mahasiswa Muhammadiyah*. This article finds that the discussion of peace in normative documents is less actualized, and in practice the organization of the idea of peace tends to be hit and run. It is important for Muhammadiyah to endorse Muhammadiyah youth generation on discussing, internalizing peace values, and actuating intensive peace action.

It becomes very understandable when Muhammadiyah remains consistent as a peace organization, by positioning itself as an inclusive and moderate organization. Muhammadiyah places itself as an active organization to carry perform social movements on an open social and religious moral basis. Therefore, Muhammadiyah was able to become a catalyst in a number of social and political crises in Indonesia (Dalmeri & Ratono, 2016).

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A comparative study on Islamic values of early and final semester students

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Keywords: Islamic values, students

Islamic values are found in the Prophet Muhammad SAW as said by Allah in the Qur'an: "Indeed, the Messenger of Allah has been a good example for you, for those who hope for the mercy of Allah and the coming of the Day of Judgment, and he calls Allah . "[Al Ahzab 21]. The characteristics of Rasullullah are: Siddiq means true not lying, and it can be trusted, fathonah means intelligent, and tabligh means to convey. These attitudes must be taught in medical education, so that it may create doctors with Islamic values and noble characters in helping patients. This study compares Islamic values as reflected in the mandate, fathonah, and ethical attitudes of Muslim students in semester III and VII. Islamic attitudes are calculated using a Likert scale and the results of the initial semester students (classes of 2017) shows the score of 82.03% (very good). The score of 2015 classes 79.5% (good). The results of this study were calculated statistically using student t-test and it was found that there were significant differences ($p < 0.05$). It can be concluded that the values of the initial

semester medical students are better than the final semester. It is suggested that further research is needed on the first semester students after 2 years.

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Applying role-play and interactive activities to improve students' speaking skill.

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Keywords: role-play, interactive activity, speaking skill.

This research applied classroom action research which aimed to see the implementation of role-play and interactive activities to improve students' speaking skill. The subjects of this research were the second grade students of one of private school in Makassar. The stage of this research started from planning, action, observation and then reflection. The result of this research quantitatively showed that the average students' score in the pre cycle was 1.44, in the first cycle the average students' score was 2.28, and in the second cycle the average students' score was 3.95. The average score of students from pre cycle, first cycle and the second cycle is always increasing which means that there is an improvement of students' speaking skill.

Table 1. The result of the pretest, test of cycle 1, and test of cycle 2.

	Pre-test	Cycle 1	Cycle 2
Mean	1,44	2,28	3,95

N	26	26	26
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Qualitatively, the students gained experience and input related to communicative skill. Besides that, the implementation of role-play and interactive activities in the class was very interesting for students because they can practice their speaking more in interactive and fun way. In conclusion, the implementation of role-play and interactive activities can gradually improve students' speaking skill. The finding confirms what Pollard (2008) has found.

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The impact of online review of beauty bloggers towards shopping tour interest of cosmetic products in Jakarta

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Keywords: online reviews, interest, shopping tours, cosmetic products.

Online Review belongs to the Electronic Word of Mouth (eWOM), which means one's direct opinion and it is not an advertisement. The society finds the results of Beauty Bloggers represent the popularity of a cosmetic product; in a positive sense, the beauty bloggers recommend the cosmetic products which are considered as having good quality. Therefore, a study on impacts of online reviews of beauty bloggers towards shopping tour interest of cosmetic products in Jakarta is considered necessary. This study is aimed at finding out the impacts of online reviews of beauty bloggers in encouraging women's interest to carry on shopping tours on cosmetic products in Jakarta. The study employed descriptive method by collecting data through observation and administering a questionnaire to 100 women respondents who carry on shopping tours on cosmetic products in Jakarta. The findings of the considered valid and reliable questionnaire data analysis revealed that the descriptive statistic test was categorized good for the entire variables of online reviews of beauty bloggers and the shopping tour interest. Besides, online reviews of beauty bloggers possessed a strong

relationship as many as 0,682 towards the shopping tour interest of cosmetic products in Jakarta which as many as 46,5%. Beauty bloggers shared information and recommendations based on their own experiences by using blog with the contents in the forms of captions, photos, and videos about a certain cosmetic product so that it encouraged shopping tours on cosmetic products. Therefore, in the present study, H₀ was rejected and H₁ was accepted, in which t count was $9,235 > t$ table $1,984$. Thus, it can be concluded that the impacts of online reviews of beauty blogger towards the shopping tour interest on cosmetic product in Jakarta indeed existed.

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Why companies are not always adopting sustainable innovation?

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Keywords: sustainability; technology transfer; sustainability innovation, *design thinking*.

In reality, that technology adoption is very complex. Currently manufacturing companies have passed the four main phases, referred to as the industrial revolution. The first is called the 1.0 industrial revolution, while the second and third industrial revolutions are known as Industry 2.0 and Industry 3.0. And the fourth is called the Industrial Revolution 4.0, and this is a new vector of industrial development, which means that in the future industrial revolution 4.0 can lead to gradual modernization of the industrial sector and has the potential for changes in technological modes that exist in the country itself. This study is a discussion of the understanding of why companies are not always successful in adopting sustainable technology in the field of hospital services in Indonesia from the aspect of managing supplier relations to ensure sustainability in the perspective of state-owned companies.

Literature review with a case study approach that is focused intensively on the object of service. While the population and samples are conducted at Pertamina group hospitals (RSPP), in Jakarta, Indonesia. The results in this study that companies need the right strategy, and continue to experiment as well as invest in who is in it, because sustainable innovation (technology) cannot always be adopted by the company, there needs to be a changing mindset to empathize with issues and

problems which is centered on the source that is owned by the company.

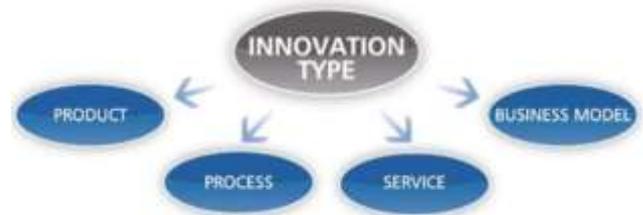


Figure 2. Type Innovation Sustainable

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Development of organic farming to endorse sustainable agriculture in Indonesia

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Keywords: organic farming, development strategy, sustainable agriculture

The movement of organic agriculture in Indonesia began in 1984 through the establishment of the Bina Sarana Bakti Foundation (BSB) followed by The Program of Go Organic 2010. The Indonesian organic agriculture development program from the Ministry of Agriculture is to encourage the realization of robust, competitive, sustainable and environmentally sound agriculture, and encourage an increase in the contribution of the agricultural sector to the national economy, through increasing Gross Domestic Product, exports, job creation, poverty reduction and increase public welfare; and fight for the interests and protection of Indonesian farmers and agriculture in the international trade system. In the course of time, the development of

organic agriculture in Indonesia faces obstacles, one of which is in the field of agricultural cultivation such as seedlings, the provision of organic fertilizers, natural pesticides, agricultural land contaminated with chemicals. This paper is aimed to know strategies to develop organic farming in Indonesia in terms of agricultural cultivation. The strategy for developing organic farming needs to involve many parties to provide solutions to the problems faced so that it is expected that the development of organic agriculture can support sustainable agriculture in Indonesia.

Literature review of disruption era in Indonesia: The resistance of industrial revolution 4.0

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Keywords: disruption era, Indonesia, implementing policies, management, education system.

The plethora of research in the multidisciplinary fields has been proved the disruption era. However, it might be several boundaries in the global context. Thus, this research attempts to identify dominant fields which consist of implementing the law, governance, management trajectory, and system of higher education in Indonesia. Furthermore, the qualitative method of the systematic literature review is used to examine the implication, and therefore this study produces four findings. Firstly, the most prominent enabling contexts are to ensure the implementation of the law and the conceptualisation of policies. Secondly, adopting effective and efficient bureaucracy bases on electronic governance (e-governance). Thirdly, management trajectory has been aimed to fill the gaps in this context. Finally, this study also intends to unveil preliminary

actions toward higher education system by networking infrastructures. The outcomes might be considered as pathways for accelerating the progress related to authorities, companies, and institutions. By way of conclusion, in order to attain better provision, measuring the process of Indonesia disruption realm is a critical phase to elucidate the current circumstance, elaborate the gaps, and foresee the priority actions concerning the disruption era in Indonesia.

The role of university's middle level manager in the quality assurance of teaching and learning

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Keywords: quality assurance, middle level management, higher education, teaching and learning

This research is aimed at exploring the roles of the heads of departments as the middle level manager in higher education institution in the quality assurance of teaching and learning especially in the Indonesian context. This research is significant as research on the role of the middle level manager in higher education are less found especially in quality assurance of teaching and learning. This research focuses on the management strand of quality assurance (c.f. Steinhardt et al. 2017). The roles of the middle level managers are seen from the activities of the managers in the stages of quality assurance of teaching and learning (c.f. Elton, 1995). Data were collected from documents analysis and interviews to seven heads of 'A' grade departments and one head of Centre for Teaching and Learning in the university. The findings show that the role of middle level managers in quality assurance of teaching and learning fell under seven categories such as (i) translating university's vision into concrete benchmark, (ii) empowering subordinates and building partnership with other parties, (iii) monitoring and controlling quality teaching and learning, (iv) planning, managing, evaluating programs for quality assurance, (v) becoming hub between top and lower level management, (vi)

leading academic convention, and (vii) fund tactician. This research, even though has described vividly the roles of the heads of departments as the middle level manager in higher education, is very context specific and other countries' higher education may possess different mechanism. However, most universities, especially in Indonesia or similar contexts, may take the practical benefits of this research, which is to raise awareness and potential contribution of the middle level managers in quality assurance of teaching and learning.

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Communication strategies of the provincial government of Bali for a Benoa bay reclamation conflict resolution in 2016-2017

Suciati¹ and Nur Sofyan²ⁱ

Keywords: communication strategy, opinion leader, local wisdom, feasibility study, participatory tokenism

This research aims to describe communication strategy models of Provincial Government of Bali in resolving a reclamation conflict of Benoa Bay. The reclamation refusal led by *Forum Masyarakat Bali* (ForBali) hampered the reclamation project, mentioned on Presidential Regulation No. 51/2014. Even though the Provincial Government of Bali were not an executor, they attempted several plans to succeed the reclamation project.

This study was descriptive qualitative research which the data were gathered through in-depth interviews and documentation. Research participants were provincial government officials of Bali engaged in communication with Balinese people. The data were analyzed using an interactive analysis and data validity employed triangulation.

Research findings showed that the Provincial

Government of Bali applied a participatory approach of tokenism. As a planning stage, the government undertook feasibility studies (environmental impact assessments), in spite of only a few, through communicating with the people interactively, functioning '*kelihan*' as an opinion leader, and interacting with local wisdom. In order that the communication could run effectively, government as a decision maker should have face-to-face interaction with Bali people. On the contrary, there were only few feasibility studies and most of them revealed that Benoa Bay reclamation was not feasible.

Autonomous Weapon System (AWS): weapon revolutionary or weapon mass destruction?

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Keywords: artificial intelligence, autonomous weapon system, mass production, mass destruction.

The autonomous weapons system (AWS) is a weapon that no longer involves human in its operation. It will move independently, look for its target, identify, and execute the target. This weapon is controlled by a robot equipped with artificial intelligence. This system is more advanced than drone technology (UCAV), which is still controlled by humans even from very distant range. Various parties claim that these weapons have more advantages compared to conventional weapons that are still controlled by humans. This weapon can eliminate mistakes that are often done by humans. The traits, quicker in scanning and making a decision, and free from situational human psychology (e.g., stress, et cetera.). This paper intends to explore the possible dangers posed by this weaponry system. This weapon system has a high priority on technological sophistication. Therefore, countries with advanced technology will be trapped in

the increasingly extended lagging. This model weapon is also very likely to be produced by the private sector. Mass production carried out by the private sector will provide massive opportunities for the use of these weapons which are capable of mass destruction. To support this, Frank Sauer (2016, p. 10) on his argument asserted that from the ethical point of view, it is argued that autonomous weapons systems violate fundamental human values.

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The role of social media in promoting ASEAN community

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Keywords: regionalism, social media, ASEAN community, communication discourse.

ASEAN community as a goal of ASEAN regionalism, needs mutual understanding of social, economic, and political reality from the government and its citizen. In today's digital age, the social media is replacing mass media as a platform for people to do communication discourse. According to Hacker and Dick (2000), information and communication technologies provide space for people to discuss economic, social and political issues that feel and create a common awareness and social movement. People can conduct public discussions indefinitely, where, and whoever the actors in talking about an issue and make it as a common concern (Habermas, 1989).

ASEAN became the world's largest internet user. More than 338.79 million Internet users and 305.47 social media users. Among the number of these social media users, 90 % (274.92 million) ASEAN people using facebook and the other popular social media are youtube and twitter (www.aseaup.com, 2017). Knowing this great potential drives great opportunity to utilize social media as a medium for discussing ASEAN among its citizens.

The question in this paper is, how does ASEAN secretariat use social media to promote ASEAN Community and Identity among the people of ASEAN ?

The author will use descriptive analysis to know about ASEAN's social media such as Facebook, Youtube, and Twitter for promoting ASEAN Community and Identity.

The results of this study indicate that the use of Facebook, Youtube, and Twitter has not been optimal in the discourse of ASEAN. Number of Facebook residents who became follower of "aseansecretariat" until 2017 only 646,000 people and visited by 10 638 people. Asean Secretariat also manages <https://www.youtube.com/user/theaseansecretariat> since 12 August 2010 with the number of subscribers 2,973. The followers of twitter account "@ASEAN" only amounted to 75,700 people with 6,593 times ASEAN "twit". This is not comparable to the number of internet users in ASEAN and indicates a lack of intensity on ASEAN discourse among its citizens. In addition, the pattern of communication is still dominated by top-down where ASEAN officials as a source of news and lack of public participation in supplying discourse about ASEAN.

Korean gastro diplomacy: Strategy to enhance state promotion toward Moslem countries

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Keywords: korean food, gastro diplomacy, country promotions

This paper discusses culinary as a medium of cultural exchange and strategic instrument to enhance other countries awareness, engage on a cultural and personal level, and encourage economic development such as trade and investment, as well as country promotion with everyday diners. It is no longer just a problem in the kitchen area, nor a product that is processed and then eaten. South Korea is an excellent example to describe how the uses of culinary or popularly known as Korean Food, as well as other successful instruments such as Korean Drama or Korean Pop Music started in the early 1990s, have been boosted Korean cultural popularity. They direct and indirectly enhance Korean economic and political influences throughout the world.

Interestingly, in contrast to K-Drama or K-Pop, K-Food has found a challenge to convince certain countries, primarily Muslim countries that their food had met Halal standard, which mean the food is prepared in a manner prescribed by Islamic law. This article used political

approaches, especially on the perspective of soft diplomacy and commodification of the Halal label. This paper found that Korean Government, represented by the Ministry of Agriculture, Food and Rural Affairs conducted Gastro Diplomacy -with its premise that the easiest way to win hearts and minds is through the stomach- by *first*, organizing K-Food Fair in three Muslim countries, such as Malaysia, United Arab Emirates, and Indonesia in 2015. *Second*, by making Lunch Box Mini Drama Series and uploaded it into YouTube to communicate, promulgate, and convince other countries that Korean has noticed and fulfilled on requirement Halal standard for Moslems. These K-Food Fair and Lunch Box Mini Drama have succeeded in increasing Muslim public trust toward Korean Food.

Collaboration between social values and Information-Communication Technology (ICT): A strategy to develop startups in Indonesia

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Keywords: developing strategy, startups, Indonesia, social values, ICT

Indonesia is currently entering the knowledge economic era after the industrial sector lost its position as a driver of economic growth. In 2018, startups become the most potential economic sector in Indonesia after contribution 57.5% of the GDP. The low TFP growth rate and the small number of startups which utilize ICT indicate that ICT literacy education is necessary to develop Indonesian startups and accelerating economic growth. However, older and least educated people are not interested to utilize ICT for business purpose since they do not find the root of their cultural value within it. A developing project is essential to increase the interest

in using internet and further ICT to develop startups in Indonesia. This research creates a strategy that collaborates the social values and ICT by improving the developing project of digital startups and collaborate it with the social values of Indonesia in every stages of the developing project.

Worksheet through problem based learning approach as a learning media

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Keywords: worksheet; problem based learning; learning media; medical electronic practice

This research was aimed at gaining a worksheet learning media with the steps of Problem Based Learning approaches for the learning of Medical Electronic Practice. This research adapted the development model of Alessi and Trollip consisting three steps, namely planning, design, and development. Product test design used was alpha testing. The data collection technique used was interview, documentation, observation, and questionnaires. The data analysis technique used was qualitative descriptive analysis. The results of this research showed that, in general, the worksheet of Medical Electronic Practice developed in

this research got the average score 2.97 which was in the suitable category. This worksheet assessment was identified from five assessment indicators, namely graphics, material presentation, Problem Based Learning characteristics, suitability, and usage. Thus, the worksheet of suitable category was able to be applied in the learning of Medical Electronic Practice.

Modern migration in Indonesia

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Keywords: migration, contemporary migration, migration policies

This paper provides the analysis of the impact caused by modern and contemporary migration in Indonesia. I obtain that the development of world politics which caused conflict and war in several countries gave rise to a wave of refugees as a new form of migration. I find that case of Indonesia illustrates that this country is a transit country from the invasion of refugees from Syria, Afghanistan and Myanmar, as a new phase of people changing space for political reasons. The demand to understand the issue of migration for decision-makers is driven by political pressures such as the issue of national sovereignty, negotiations on the placement of refugees and the resolution of economic and social problems for refugees and local residents, all of which are brought

about in line with the increasing phenomenon of migration. By looking at the phenomena of migration that occur, it is expected to be able to add scientific insight to the study of transnational migration and study of diplomacy and international cooperation with the discovery of phenomenon, forms and characters of modern migration and their impact on the countries concerned that cause countries this has a special policy tailored to the political, economic and cultural conditions.

The boarding university strategy in developing e-learning based multimedia instructional

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Keywords: boarding university, ICT, e-learning, multimedia instructional

The development of information and communication technology has a significant influence on the development of learning media and method. E-learning is a new way of teaching and learning using information and communication technology as a learning system. Interactive multimedia which is more popular as multimedia instructional, is one kind of the learning media that can be developed and implemented through e-learning system. This study aims to analyze the strategies in developing e-learning-based multimedia instructional at the Islamic boarding university. This study used a qualitative method. Data collection was carried out through observation and interviews with several stakeholders and lecturers about strategies in

developing e-learning-based multimedia instructional at Islamic boarding university. The results showed that the strategy in developing e-learning based multimedia instructional at the Islamic boarding university was conducted through five processes. The five processes are composed of analysis, design, development, implementation, and evaluation. The contribution of this study is a strategy in developing e-learning-based multimedia instructional creatively and innovatively at Islamic boarding university.

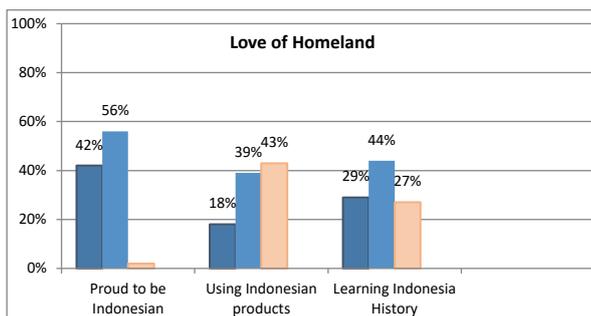
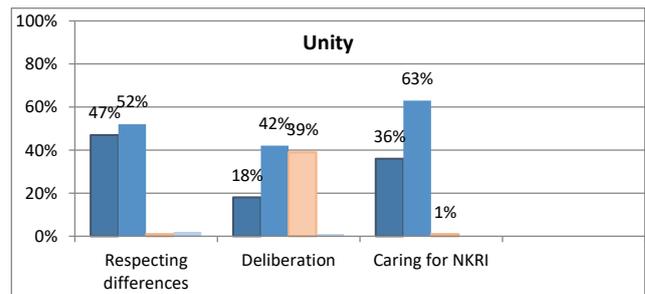
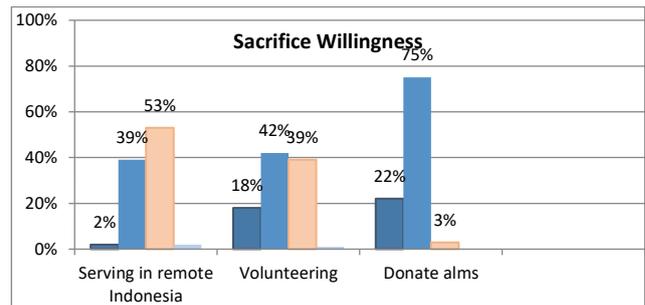
Nationalism attitude of Indonesian citizen: A survey

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Keywords: Attitude, Nationalism

Nationalism is one of the fundamental things for the development of a country since it influenced the strength of the country. Over a few decades, the problems of nationalism have been experienced by several countries. This study aimed at investigating the attitudes of Indonesian nationalism by using the design survey method with the results of quantitative data. The researcher, distributed questionnaires. The questionnaires were about how Indonesian reflected their nationalism created based on 4 aspects of nationalism; love of the homeland, sacrifice willingness, unity and never give up. They have consisted of 12 statements that used a Four-Likert scale to indicate Indonesian nationalism. This study involved 100 respondents; age between 18-40 years old. The study revealed that Indonesian citizens showed their attitude towards indicators of nationalism: proud to be Indonesian, learning Indonesia history, volunteering, donating alms, respecting differences, deliberation, caring for NKRI, sincerity, optimistic as well as endurance (c.f. Soegito et al., 2006). Meanwhile, the non-nationalism attitudes were reflected from the indicators like using Indonesian products and serving in the remote area around Indonesia.



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The urgency of draft bill on creative economy in developing the creative economy

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Keywords: creative economy, regulation, policy formulation

The creative economy in various developed countries has shown a significant contribution to the economy. The same thing also happened in Indonesia, the creative economy has shown an increasing contribution to the Indonesia Economy. The creative economy is even to be the backbone of Indonesia economics in the future. This research used descriptive qualitative analysis trying to analyze the urgency of the bill on creative economics in developing the economy in Indonesia. The results of this research are expected to be an input for policy making for the stakeholder of the creative economy in Indonesia. The regulation that conducive for the ecosystem of the creative economy is expected to be tools to increase the development of the creative economy in Indonesia. So according to Simatupang (2018), there are at least 4 materials that need to be regulated in the bill of creative economy, such as: (1) how to develop; (2) ease of public services; (3) ease of banking access and marketing / promotion as well as (4) institutions.



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Edutainment with the help of volcanic media for the development of children's language in group B at TK X Kamal, Bangkalan

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Keywords: Edutainment, language development, volcanic erupted media

This study aims to look at the development of language owned by group B children in TK X Kamal, Bangkalan using edutainment. On the implementation of using mountain media erupted by performing a volcanic eruption process simulation. Learning about volcanic eruptions is expected to enable children to get to know the environment, and explain the symptoms of nature. This study uses quantitative descriptive research to determine the number of students who can describe the

process of erupting the mountain verbally. The location of this study was conducted at TK X kamal Bangkalan with a total of 16 students. The results of this study were to look at the language development of children in group B in explaining natural phenomena such as volcanic eruptions.

Teacher's interpersonal communication skill toward students with special needs

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Keywords: Interpersonal communication skill, Regular students, Slow learner, Intellectual disability

Regular students are characterized with average ability or above-average ability, while students with special needs refer to those who are below the average (slow learner, students with intellectual disability). The current study is aimed at finding out the difference of elementary school teacher's interpersonal communication skill toward regular students and students categorized as slow learner/ students with intellectual disability. This study proposed a hypothesis stating that there is no difference in teacher's interpersonal communication skill toward regular students and toward students with special needs.

This study employed descriptive survey with descriptive comparative study design. The subject of the study was fifty teachers from 19 elementary schools who were selected through simple random sampling. The collected data were in the form of communication skill obtained from Interpersonal Communication Skill Scale.

The data were then analyzed using T-test. The analysis resulted in sig. 0.165 (>0.05), thus it could be concluded that the null hypothesis (H_0) was accepted. In other words, there is no difference in teacher's interpersonal communication skill toward regular students and toward students categorized as slow learner/students with intellectual disability. The presence of control, trust, and intimacy in interpersonal relationship between teacher and students outside the classroom setting may enhance interpersonal relationship and greater learning success (Dobransky & Frymier, 2009).

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Cultural and Educational Values in Japanese Discourses Understanding Materials

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Keywords: Culture, Education, Discourse

This study examines valuable cultural values which are worthy to be struggled for, cultural education and national character values, Three Issues of Education (Tiga Isu Pendidikan), and the comparison between cultural values and Japanese and Indonesian education.

Derived from the result of data analysis, it can be seen that the element of harmonization in cultural values (50%) is being the primary priority. An evidence which supports this result can be viewed from Japanese people's attitude who prioritized the harmonization in their relationship with others. However, the element of competition (45%) is another dominant factor since a fair competition becomes the main barometer in measuring off the effort, competence, and achievement. The element of honesty is also prioritized (40%) because Japanese people have a higher sense of mortification culture. If someone lies, it will be embarrassing the self. The attitude of patriotism (20%) is also seen within Japanese people's manners and thoughts.

Based on the three issues of education which discuss the real and ideal culture, traditional and newer values, as well as the dominant and minority values, the real culture has bigger portion in living up the text discourse in intermediate level's discourse understanding textbooks. The real culture which is viewed to have an influence towards knowledge level as well as involving a system of idea inside a human mind is found in the average of 80%. This real culture has been mingled with

the values of minority, which in general, are not considered significant since it is not a dominant factor. Japan, a country that has a high persistence in maintaining its cultures, involves traditional values in every idea which is later put into the text comprehension. Traditional values (60%) are seemed as if these values are not getting an influence from Japan's rapid development of science and technology. However, the newer values are, in fact, immensely influenced by Japan's development of science and technology since it results the amount of 30%. The ideal culture also seems to have never been abandoned by Japanese people because this ideal culture deserves an approval from society, needs to be conserved, and can influence the knowledge level that involves a system of ideas in human mind. 30% of ideal culture's influence can be found in the text discourse.

An educational value which is implied in the study of Japanese text discourse is that various ways of thinking and perspectives are the potency of the rich of every human intellectual. Cultural and educational values which exist in Japanese discourse understanding textbooks can also be adopted into Indonesian cultural values.

Strategic Planning Department of Transportation Malang in Optimization Revenue Levies Parking

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Keywords: Parking Retribution, Strategic Planning, Strategy

Research on the strategic planning of the Transportation Department of Malang City in optimizing the receipt of parking fees is based on the number of parking lots that can be optimized and not synchronized between the strategies that have been made by the Department of Transportation and what happens in the field. Not optimal revenue from parking fees is also due to unbalanced parking deposits set by the Transportation Agency. The type of research used is a type of descriptive research with a qualitative approach and the data analysis used is SWOT. By using SWOT analysis

can produce strategic recommendations that can be used by the Department of Transportation, namely optimizing team collaboration between the Department of Transportation officials in Malang City, especially in parking areas to increase parking sector revenue, improve Human Resources and institutional systems in parking, enforcing regulations on parking to reduce cheating done by parking attendants and minimizing poor parking services.

Reflection on the Village Natural Resource Management Policy

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Keywords: Village natural resource, Village assets, BUMDes

Although villages still receive an allocation of funds from the government, they have been given the authority to manage the natural resources in their area. The current BUMDes categorized into two types, BUMDes that created before the village law and BUMDes that formed after the village law. BUMDes before the village law is currently growing significantly because the law provides an opportunity to get more funding and cooperate with other parties. This paper will present how the characteristics of ownership of natural resources have impacts on the successful management of village natural resources. This paper argues that BUMDes created after the implementation of the village autonomy law showed

several tendencies. First, villages with natural resources owned by the village government, the management carried out by BUMDes and managed to have a positive impact on the welfare of the community. Second, villages with natural resources that are controlled by the civil society show a tendency of a tense relationship between the village government and owners. Third, villages that do not have natural resources allocate funds for the management of village resources but do not bring any benefits at all.

Contemporary Meaning and Function of Minaret an Exploration of Grand Mosque Hasyim Asyari

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Keywords: Architecture, Contemporary mosque, Minaret, Jakarta, Hasyim Asy'ari

This paper will investigate and interrogate the significance and existence of minaret in contemporary urban mosque in Jakarta. Etymologically speaking, minaret derives from the word manaras, which means mercusuar. Throughout history, minaret was not built to amplify call prayer and its development in the Middle Eastern context were various among regions. Yet, in Indonesia minaret was only known during the modern Indonesian era following different cultural and historical contexts. In contemporary context, prominent

Indonesian architects are still put minaret in their mosques design. Through an exploration of Jakarta Grand Mosque KH Hasyim Asyari, Jakarta and the lens of the architect and the ummah, we will analyze the meaning and function of the minaret and how it transforms or not transform the ritual spatial practice of the ummah in contemporary urban context.

Case Study of Remote Pair Self-Disclosure Through WhatsApp Application Services among Indonesian Crews Family on Holland America Line Inc Cruise Ship

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Keywords: Disruptive era, self-Disclosure, long Distance relationships, Indonesian crews, Communication technology

The improvement of technology has been creating digital transformation that gradually or radically changing people's behavior and habits in almost every aspect of daily life. As the result, the transformation gradually change the ways in how people produce, consume, and interact with each other, not to mention the way they think. One thing that promotes such significant change is the innovation. Innovation has been affecting almost every corner of human life. Within fingers reach people is able in establishing any interaction or transaction world-wide and real-time with the advancement of the internet and the keep moving innovation of mobile technology.

This paper is a first contribution towards exploring the reciprocal relationship between married couples who do not have physical closeness by covering aspects of marital satisfaction. The communication carried out by the couple uses the WhatsApp application service, which supports the satisfaction of communicating with each other. The type of research used is a type of qualitative research using a case study approach. Sampling is done by purposive sampling method. By taking 12 pairs of husband and wife, one of their partners is working at Holland America Line Inc. Data collection techniques carried out were through interviews and documentation

studies, by conducting interviews with married couples who had long-distance relationships mediated by WhatsApp application services.

The results of the study related to self-disclosure by different married couples, there are those who have a wide depth of self-openness because couples are able to run problems that occur at home to their partners, there are couples who do not have broad self-disclosure, because of problems regarding certain topics cannot be explained to their partners. Another finding from this study is that the use of the WhatsApp feature can support communication with one another. Like the send message feature to facilitate communication, the service call feature if the couple cannot understand the contents of the message sent via the send message feature. The video call feature when couples want to see their partners directly and the smile icon feature to confirm the sentences. As well as making emoticons as a form of word thickening in the feature send a message that describes the emotions or feelings of the sender of the message.

Media and Family in era 4.0: Impact of Digital Interactions and Communication Pattern of Children and Parent

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Keywords: Digital interaction, Family communication pattern, Conversation orientation, Conformity orientation

This research is related to the behavior of children and parents in interactions mediated by digital communication. The purpose of this paper is to describe the pattern of family communication perceived by children and their parents in interacting and how different perceptions of communication between them. The study sample consisted of thirty family pairs consisting of adolescents and their parents who provided reports on the patterns of communication formed in their families. Questionnaires about interaction and communication used refer to the children's and parents' version of the family communication pattern instrument. Factor analysis is used to process data. The results showed that some parents-child pairs had different perceptions in the pattern of family communication. Interactions mediated by digital communication provide a gap in orientation orientation and conversation orientation in the family, parents perceive a higher orientation towards conformity than their children, while children perceive a higher conversation orientation than their parents. Using the Mann-Whitney test found differences in conformity orientation between children and parents. This finding is the basis for deeper exploration of the dimensions of family communication

patterns. Some substantive and applicable implications are discussed. Reviewing the relationship of differences that lead to conflict between parents and their children is also important for future research. In addition, experience in exercising control is important since the beginning of the development of social and cognitive competencies. This is in line with (Ainsworth, 1974), that parents who are responsive to their children will show behavior that creates opportunities to regulate. And this interaction effect is related to the role and function of the family (Schrodt, 2009; Schrodt et al., 2008).

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Mental Health: Strategy to Reduce Case of Pasung in East Java

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²UPN Veteran Jawa Timur, Indonesia.

Keywords: Strategy, Free Pasung at JATIM

East Java Province ranks first in the number of cases of inclusion of people with psychiatric disorders or can be called psychotic. The Ministry of Social Affairs noted that there were 1,200 people in Pasung in 2016. 459 had been released from income and as many as 741. Patients with mental disorders were installed in East Java which was spread over 38 regencies / cities. Then in 2017 there were 757 cases and up to 2018 there were 888 cases. Thus the government strives to reduce cases of mental disorder sufferers through E-Pasung and District Social Welfare Personnel. The purpose of this study is to analyze the impact of government efforts through E-Pasung and mentoring. This study uses a qualitative research methodology.

Techniques for collecting data by interviewing the Social Service and Health Service. To strengthen the argument, the study of documentation and literature was also used in this study. The results of this study indicate that the innovation of public services in the form of E-pasung initially decreased but in the following year it increased to 2018. The Social Service also involved 110 pasung assistants, among them from TKSK (District Social Welfare Workers). Assistance to the Pasung family in terms of monitoring the availability of drugs, family education to take patients to the hospital and to rehabilitation centers

Differences on Elementary Student Character: Is Religiosity Base Matters?

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² Universitas Islam 45, Indonesia.

Keywords: Emotional intelligence, Academic procrastination, Empathy

This study aims to analyse differences in the superior character of students between Islamic-based schools and public schools. Those characters are emotional intelligence, empathy to others and discipline at school (in this study we measured procrastination as one of lacking discipline behaviour). This study uses quantitative research methods. Participants of this research are students of integrated Islamic schools and public schools. The number of respondents used in this study is 205 elementary students using purposive sampling technique. Data collections techniques used empathy scale (Caruso & Mayer, 1998), the scale of academic procrastination (McCloskey, 2012) and emotional intelligence scale (Schutte, et.al., 1998). Analysis of variance techniques was used to see differences between groups.

The results show that there are significant differences between integrated Islamic schools and public school's students in all characteristics. Islamic based school's students have higher point of empathy and emotional

intelligence than public school students, and for the procrastination Islamic based school students has a lower point than public school students.

V	I	DV	SS	Df	F	Sig
School Type	Emotional Intl.	Empathy	4441,671	1	12,66	0,000*
			14635,22	1	21,36	0,000*
	Academic Procrast	2010,911	1	9,275	0,003*	

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Grateful: Character Master in Islamic Education

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Keywords: Gratitude, Character, Islamic Education, Spiritual Welfare

Gratitude is the main character in Islamic education. As a parent character, gratitude contains the values of spirituality needed in Islamic education. Character values contained in the spirituality of gratitude, among others, amanah, qonā'ah, istiḳāmah, tawāḍu', tawakal, optimism, kretaif hard work and prosocial actions. These character values, in accordance with the four main pillars of character development in Islamic education, namely sidiq, tablig, amanah and fathanah. The spirituality of gratitude that contains the character values mentioned above encourages people to have the ability to build harmonious relationships with themselves, others, the environment, and towards God (Gomez & Fisher, 2003). The ability to build harmonious relationships is based on the ability to respect good values. When the values of gratitude have been internalized in themselves, a gratitude personality will be formed. This personality leads one to achieve spiritual well-being. This is consistent with the assumption that the religious aspect has an important role in creating spiritual well-being. (Afandi, Tjahjono, & Palupi, 2017)

Character values developed in Islamic education aim to create spiritual well-being in students. This welfare is oriented towards the creation of a harmonious relationship within students with God, themselves, others and the environment. Therefore, character development in Islamic education can be done through internalizing the values of spirituality in gratitude in the lives of students.

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Can the Implementation of Green Human Resource Management Succeed?

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Keywords: Green human resource management, Environment management, Sustainability development

The phenomenon of global warming triggers an increase in environmental ethics awareness in an effort to save the earth and the environment from the threat of damage. One concept that relates to efforts to save the environment is the concept of go green. Various studies have concluded that the concept of environmentally friendly innovation will have a positive impact on organizational performance. This study discusses the future direction of several Green Human Resources Management functions. Finally, this study produces

suggestions for several Human Resources innovations that have a better potential for green organizations, one of which is companies need to make measurable policies in environmental management so that they will increase awareness and disseminate knowledge about the impact of Green HRM on sustainable development in organizations.

Legal Characteristics of Establishment Partnership Agreement 212 Mart Supermarkets in Medan City

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Keywords: Legal characteristics, Partnership agreement, 212 marts

Based on partnership principles, partnership agreements can take place when one or more people have the same interests and awareness to work together to achieve common interests. This study uses a normative juridical approach, which is nature descriptive because it seeks to explain clearly the pattern of the agreement for the results of establishing 212 Mart supermarkets, where the population is 575 agreement documents. The sample selection was determined purposively because of the form and content of the same agreement from each

investor from several 212 Mart Supermarkets that had been established in Medan City.

Based on research shown that partnership agreement 212 Mart has several legal characteristics which are based on the general partnership principle, which is based on the congregation, giving birth to a partnership, as an anonymous agreement and reciprocal agreement.

Piety and Formation of Identity Muslim Middle Class in Yogyakarta

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Keywords: Piety, Identity, Middle-class Muslims, Identity

Groups identity as many forms. The Muslim middle-class formation with pieties making activities to deference in the society and the others entity. Muslim middle class and identity are religious motivation for activities, like reading the Qur'an, sacrifice, and giving for the poor in society. In the Alam Citra Land, deference whit out many activities to complex social and religious identity. This article to description and analysis Muslim middle class correlation with social activity bounding and Piety in society.

Piety symbolic Muslim middle-class activities with future hope as well as a positive activity like education, business and work. This article is based on the literature review, observation and interviews with people in the Alam Citra Land. The analysis of data with qualitative and sociological anthropological perspectives.

Politics and the State (State Role in Globalization Era) “With the Enactment Analysis of State Authorities Perpres no 20year 2018 concerning the TKA (Foreign Workers)”

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Keywords: Politics, State and Global Markets

This paper discusses the political and state analysis proposed by Andrew Heywood in his book on politics. Politics and the State are things that cannot be freed because they deal with almost all aspects of life that are on the boundaries of their land. Political science is actually understood as a State study, an analysis of organizational institutions, evaluating its impact on society and so on. Therefore, the State has often been interpreted as a political entity that forms a region within the boundaries of the sovereignty of certain regions, and organizes authority through a series of permanent institutions. The state has the power and authority that regulates all activities to ensure public security, social and economic prosperity, and its development. But lately the role of the State in power and sovereignty-threat-threat will lose its authority partly in controlling the

direction of the destination country. The entry of globalization or the global market makes the role of the state become weaker or stronger, so that the state can lose its existence in authority. The country can be a failure or maybe advance with the global market.

The analysis used in this paper is to use the theory of Good Governance. Discussion of the results shows that the policies issued by the president of labor regulations regarding the use of negative and positive impacts. On one side of this policy is the possibility of attending ASEAN countries because of the ASEAN Economic Community (AEC) agreement. The agreement with the State must also have to give up some of its authority.

Digital Literacy Skills of Slukat Learning Center Students in Keramas Village

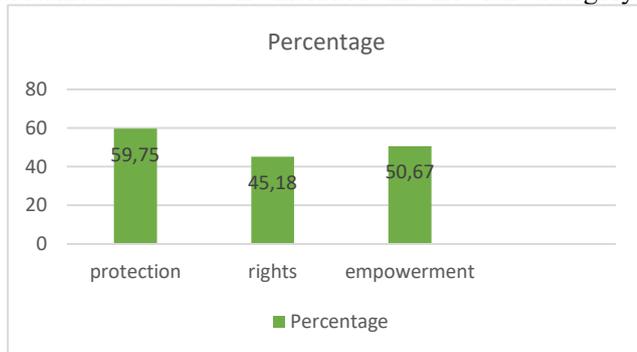
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Keywords: Digital Literacy, 21st Century Learning, Rural Area

Information literacy, especially digital information, is one of the special skills in the 21st century that must be mastered by students. Digital literacy skills can help students find, evaluate, utilize, create and communicate content/information. There are three main parts of the digital literacy framework that are the focus of this research, namely: protection, rights, and empowerment. This study aims to provide an overview of the level of understanding of digital literacy in students in rural areas, especially students of the Slukat Learning Center. Data obtained by using a questionnaire given to 26 students intermediate level. The questionnaire was compiled based on three main parts of the digital literacy framework using the Likert scale. The results of data analysis show that: (1) the average understanding of the digital literacy framework for the protection section falls in the poor category for 59.75%, (2) the average understanding of the digital literacy framework for the rights: 45,18% falls into the poor category (3) the average understanding in the empowerment section is obtained: 50.67% is included in the fair category.



The results of this study are not only much noticed, but also have not been much noticed by respondents who have an impact on fraud and in buying and selling transactions. This is an act that violates the governing laws of the use of pirated software. However, The rights aspect, the results of 45.18%, the first responses to opinions of opinions, ideas, feeling opinions, criticism to the government through social media have not been well applied by the respondents, besides distributing untested information the facts are still often done by respondents. Social media allows people to interact remotely, but the threat of deception also increases on social media which increases the risk of mass panic, which is false and correct information (Santoso et al., 2017).

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Contestation of Religious Symbol in Public Sphere: The Muslim and Christian Experience in Jayapura Papua

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Keywords: Religious symbol, Identity, Contestation, Islam-Christian Relation

Tulisan ini bertujuan untuk menjelaskan fenomena kontestasi identitas Islam dan Kristen di ruang publik Kota Jayapura Papua. Kontestasi identitas terjadi antara kelompok agama dalam bentuk penampilkannya identitas simbolik yang mewujudkan dalam beberapa bentuk seperti penempatan patung salib dan penampakan simbol bulan sabit pada tempat-tempat umum strategis dan pembuatan kubah rumah ibadah yang mirip antara gereja dan masjid. Data yang dikumpulkan selain data visual berupa foto yang diperoleh dari lapangan, juga digunakan data kualitatif yang diperoleh melalui wawancara langsung dan tidak langsung terhadap informan. Analisis dilakukan dengan menggunakan pendekatan

fenomenologi yang melihat fenomena simbolik identitas agama sebagai teks yang dapat ditafsirkan dan diberi makna.

Tulisan ini menemukan tiga hal penting. Pertama, kontestasi identitas yang terjadi tampak dalam bentuk visualisasi simbol di ruang publik dan penggunaan simbol-simbol agama dalam praktik kehidupan sehari-hari. Kedua, kontestasi identitas terjadi akibat adanya kecenderungan masing-masing kelompok agama untuk diakui dan menganggap diri sebagai pemilik atas tanah Papua. Ketiga, kontestasi identitas yang berlangsung berdampak pada pola hubungan antara Islam dan Kristen di Jayapura Papua yang bersifat dinamik-kontestatif.

Moslem Women's Participation in Sustainable Household Clean Water Management

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Keywords: Moslem, women's participation, household water management

Environment is easily changing through urban development and people growth. In this situation, the availability of clean water would be threatened unless it has a good water management. The purpose of this research is to examine Moslem women's participation in sustainable household clean water management. This descriptive research analyzed qualitative data collected using questionnaire and interview toward 50 household women. The sampling methods employed accidental and purposive sampling in Moslem community.

This research found that household clean water management has not optimally done yet so it could not perform the water use efficiency for environment and water sustainability although the women's participation rates is high (75,40). In addition, the teaching of Islam has not emerged as the basic principle for water management by Moslem women. This showed by the practice of water managements, such as water saving and water conservation, which were only done for saving the

money and not related to their Islamic beliefs.

This research study intends to make Moslem women's participation in household clean water management as one of gender empowerment practices. To fulfill basic needs, participation becomes one of fundamental human right which is related to empowerment (Elias, 2015). Thus, women already get admitted to have knowledge about water and can decide what source of water which will be used and how much water will be needed for fulfill their household needs, and also how to get, keep and use it (O'Reilly, 2014).

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Enhancing Women Contribution on Peace and Conflict Resolution Agenda: Indonesian Female Peacekeeper on United Nations Peacekeeping Operation (Kontingen Garuda – Konga)

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Keywords: Women, Peace Agenda, Conflict Resolution, Female Peacekeepers, Indonesia

Until a few years ago, most practitioners and scientists still argued that security, peace and conflict resolution issues had nothing to do with gender. But the facts show that women and men experience conflict differently. Women and children tend to be victims in situations of war and conflict. Even some militias allowed their troops to rape women in compensation for wages against the enemy. Other militia use rape as a weapon of war. These terrible phenomenon made women aware that they had to move, to change their own destiny, which had originally become victims, now had to become agents of change, as peacebuilders, peacekeepers, and to participate in peace negotiations. This demand was responded positively by the United Nations with the issuance of Security Council resolution 1325 concerning Women Peace and Security. In accordance with the mandate of the 1945 Constitution and moreover as a non-permanent member of the United Nations Security Council Indonesia fully supports the implementation of the resolution by issuing Indonesian Roadmap Vision 4,000 Peacekeepers 2015-2019).

This research aims to analyze why women need to increase their role in the peace and conflict resolution agenda. More specifically will examine about the contribution of Indonesian Female Peacekeeper on United Nations Peacekeeping Operation. The following paper will use a feminist theoretical framework in analyzing the issue at hand. Gender analysis will be used to look at the role and impact experienced by men and women in war and conflict, and the role that women can play in the peace and conflict resolution agenda.

It argues that the change of the nature of warfare, from mainly inter-state to predominantly intra-state, and the change of the concept of security from national security to human security requires the ability of peacekeepers to get closer to the community. The involvement of women in peacekeeping forces will increase community acceptance, and optimizes the military's ability to fulfill its role in protecting democratic societies.

Causes of the Failure of Egypt's Democracy after the Arab Spring: Egypt Should Have Learnt from Indonesia's Experience!

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Keywords: The Arab Spring, Egypt, Consolidation of democracy, Failure, Indonesian model

The Arab Spring in 2011 opened the way of democratization in some Arab countries, including Egypt. Egypt succeeded in overthrowing Hosni Mubarak as the president but Egypt failed in consolidating democracy after holding general election 2012. It was found that one of the main factors of the failure in consolidating democracy in Egypt was the foreign intervention due to national interest. This article analyzes the failure of the democratization in Egypt by using Jack Snyder's and Georg Sorensen's theory.

In the last part of this article, the writer gives suggestion that Egypt should have learnt from Indonesia how to consolidate the democracy. Indonesia is the best model of the democracy for Egypt due to some reasons. The first one is Indonesia and Egypt near culturally (religious approach), and the second one is the success of Indonesia, as the majority Muslim state, in

consolidating democracy since 1998. Indonesia is one of the examples where Islam and democracy can coexist. It is recognized by Hillary Clinton, presidential candidate of the United State in 2016. Hillary said that : "If you want to know whether Islam, democracy, modernity, and women's rights can coexist, go to Indonesia." And Hillary Clinton, also Madeleine Albright, praised Indonesia's democratization as the ideal model for the Arab Spring (Hoesterey, 2013: 56).

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The Empowerment of Women: Eliminating Communication Inequality Based on Islamic Perspective (A Case Study in Desa Cilame, Kabupaten Bandung Barat)

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Keywords: Inequality, Empowerment, Islamic view, Communication

There were 347.256 divorce cases in Indonesia in 2015 (Central Bureau of Statistics). The cases tend to increase every year. The major factor causing the divorce is the communication disharmony. In fact, communication is the main essence in establishing a family. Indonesian society, based on the culture and religiosity, still firmly believes that husbands are the decision makers and wives need to obey. The deeply rooted patriarchal culture means some Indonesian women lack the opportunity to speak up. It seems that there is an inequality between husbands and wives in expressing opinions or arguments. How does Islam view empowerment? This paper will explore how Islam sees empowerment in communication between husband and wives. The study used a qualitative approach and a case study method. The data were collected through an in-depth interview, a focus group discussion, and an analysis of documents. The study took place in Desa Cilame where a group of females headed household were

given empowerment programs by some Moslem scholars.

The results of the study show that : The concept of Islam on the empowerment of women is that; 1)women are “ the open gate of the heaven” for their parents,as the religion complement for their husbands, and as the heaven for their children; 2)Islam gives freedom for women to actualize themselves by taking part in activities to make them knowledgeable and skilled; 3) Islam perceives that husband-wife relationship is not boss-subordinate one, but a relationships with love and affection where the basic convention is peace and tranquility (QS Ar-Rum [30]:21). In communication, Islam has guided through the Hadits that when speaking wives and husband must use “heart” (slowly, clearly, and well arranged) (HR Abu Dawud)..

Application Design of Countenance Evaluation Based on Tri Hita Karana-Aneka

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Keywords: proceedings; template; Asian Regional Conference

The deterioration of attitudes and knowledge quality of IT vocational students can occur due to low self-control and carelessness in information technology utilization in supporting the learning process. Therefore, an evaluation is needed to get a solution to the problem. The existence of an effective evaluation model at this time is highly demanded to provide appropriate recommendations as a solution. This study aimed to provide an overview of the application form of the Countenance evaluation model that adopts the concept of Tri Hita Karana and ANEKA. This application can be used to measure the abilities quality and character of IT Vocational students while following the computer

learning process. The method used in this research is R & D which focuses on the design stage. Subjects involved in the testing of application design were four-person, including two education experts and two informatics experts. The instrument used to obtain assessment data from experts about application design was questionnaires. The assessment results from experts show good design quality when viewed from the standard reference score with percentage evidence amounted to 87.50%.

Capitalization of Hatred and Mass Mobilization; 2017 Jakarta gubernatorial Election Case

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Keywords: Politics, Capitalization of hatred, Hate spin, Mass mobilization

This paper aims to describe how capitalization of hatred can be used effectively as a political commodity, particularly for mass mobilization. It is used to intervene in government policy. By utilizing a theoretical approach of Cherian George, the researcher analyzes how the political campaign and the 2017 Jakarta gubernatorial election capitalized hateful interfaith tolerance issues and subsequently emerged a negative view of the community towards certain groups. This hatred capitalization was profoundly proved to mobilize

mass and suppress opposing group voters. Therefore, a certain political party gains the opportunity to achieve political benefits.

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The Organizational Readiness towards Cashless Government (Case study in the Ministry of Foreign Affairs in the Republic of Indonesia)

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Keywords: Cashless basis, Cashless society, Organizational readiness, Government credit card

Much of the operational expenditure of the State Budget (APBN) is carried out through cash basis. With this mechanism, several obstacles arise, namely the costs incurred due to the ineffectiveness of cash management; the obstruction of office operations due to problems with availability of money; and the potential for corruption from cash transactions. To overcome those problems, the Ministry of Finance has made a Government Credit Cards (Kartu Kredit Pemerintah - KKP) policy to modernize the payment system.



Figure 1. Government Credit Cards Concept

Focus Group Discussion and literature studies in this paper found that organizational readiness plays an important role in efforts towards cashless government. The preparation phase of the organization is likened to being a foundation for the development of innovations.

A solid foundation is expected to be able to support the implementation of innovation so it becomes more effective, efficient and sustainable. Variables that need to be prepared in implementing an innovation include: organizational motivation in seeing the urgency of the need to change the system from cash basis to cashless; resources devoted in implementing cashless government system; the readiness and adaptability of each individual towards the implementation of cashless government system, and the organizational culture that is open to an innovation.

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Evaluation of Intangible Assets of Irrigation System in Malang Regency, East Java, Indonesia

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Keywords: Intangible assets, Evaluation, Irrigation system

Irrigation system management in Indonesia has prioritized infrastructure aspects (tangible assets), while intangible aspects such as human resources, institutional and management receive less attention. This situation causes intangible assets in the irrigation system in Indonesia is still weak so that the performance of the system is not as expected. The study was conducted in May - July in 2018 in the Water Resources Public Works Office of Malang Regency, East Java, Indonesia. The variables studied were intangible assets consisting of moral intelligence, emotional intelligence, creative attitudes, institutional culture and knowledge management. Respondents were employees of the Water Resources Public Works Office of Malang Regency. Data collection was using a questionnaire. Data analysis was using quantitative descriptive. The results showed that (i) intangible assets consisting of moral intelligence, emotional intelligence, creative attitudes and institutional culture were in good categories, (ii)

knowledge management as controlling the intangible assets were also in good category.

Table 1. Intangible Assets of Jombang Irrigation System

Category	moral intelligence		emotional intelligence		creative attitude		institutional culture	
	amount	(%)	amount	(%)	amount	(%)	amount	(%)
Very Poor	0	0,0	0	0,0	0	0,0	0	0,0
Poor	0	0,0	1	3,84	0	0,0	1	3,4
Moderate	1	3,4	6	20,7	3	10,3	6	20,7
Good	24	82,8	19	65,5	19	65,5	21	72,4
Very Good	4	13,8	4	7,7	7	6,8	1	3,4
amount	29	100	29	100	29	100	29	100,0

The Effects of Principal Leadership and Teacher Competency on Teacher Performance mediated by Work Motivation: An Evidence from Public Intermediate School in the City of Palembang, South Sumatera Province

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Keywords: School Principal Leadership, Teachers' Competence, Work Motivation, Performance

The purpose of this research is to empirically study the effects of principal leadership and teacher competency on intermediate school teacher performance, mediated by teacher motivation.

The research design used Structural Equation Modelling with AMOS 22.0 (Hair et al, 2014). The unit of analysis in this study was 2,668 Public Intermediate School Teachers in the city of Palembang, South Sumatera Province, Indonesia. The data were gathered through face to face distribution by the researcher. The data collection method was purposive sampling. The total respondents under this study were 340 teachers.

This research revealed that all exogenous variables: School Principal Leadership, Teacher Competency, and Teacher Work Motivation) have a positive effect on public intermediate school teachers' performance. Teacher work motivation is not a mediating variable in this model. This research has also given a theoretical

contribution towards Fishbein and Ajzen theory which is also known as a reasoned action theory. This research has also provided an academic input towards David McClelland N-Ach Theory which is also known as the need for achievement, affiliation, and power. At last, This research has also verified the theory from Ajzen and Fishbein (1975) which is commonly known as a reasoned-action theory. Several factors determine Teachers' attitude in teaching performance in this study. The factors include school principal leadership, teachers competency and teachers' work motivation

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Optimization of Police Mobile Brigade Corps Sentiment Analysis Based on Twitter Using Algorithm SVM and NB with PSO

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Keywords: Brimob, Korps brimob, Mako brimob

Brimob is a special operating unit that is a paramilitary property of the Indonesian National Police. The Brimob Corps is also known as one of the oldest units in the Polri organization. Currently, the national police corps brigade is busy being discussed in the real world and cyberspace, especially on social media twitter. Many opinions about the national police corps brigade so that there are positive and negative opinions Social media Twitter is now one of the places to disseminate information about the national police corps brigade. In the previous study, the maximum accuracy was still lacking the case of this study uses text mining techniques

with the support vector machine (SVM) and Naïve Bayes (NB) methods with Particle Swarm Optimization (PSO) with the addition of 150 datasheets NB having an accuracy value of 85.67% with AUC 0.818 while NB PSO obtaining 89.69% accuracy with AUC 0.875. SVM has an accuracy value of 93.40% with AUC 0.981, while SVM PSO has an accuracy value of 94.85% and AUC 0.978. The best optimization application in this model is the SVM PSO can provide solutions to classification problems in this case sentiment analysis. SVM PSO algorithm provides a solution for analyzing sentiments from the content of various online media news optimally.

The Politics of Gender in political parties (Comparative Study in PDIP and PKS in Malang City)

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Keywords: Women, Political parties, Gender politics

Post-political reform in 1998 political parties was encouraged to practice gender politics. The purpose of equality is to provide many affirmative spaces for women's involvement. Political parties are required to be more friendly to women by providing space for women to take part in and carry out cooperative programs to increase women. The latest Law Number 17 of 2017 concerning elections with the obligation of a 30% minimum quota to be imposed on women must provide a positive affirmative space for gender politics in Indonesian electoral democracy. This paper examines the necessary foundations and practices of political parties in carrying out gender politics through two things, namely the role of women in the power structure and women's empowerment programs carried out. This

research was conducted in Malang City by taking PDIP (nationalist ideology) and PKS (Islamic Religion-Conservatism). This writing uses a qualitative descriptive method. The primary data collection technique is done through observation, structured interviews. For secondary data collection carried out by the method of documentation and literature.

PDIP and PKS in Malang City have differences in practicing gender politics. PDIP is more open based on competence and social networks, minimal in women empowerment programs and a small quantity of female cadres. On the contrary, although PKS still adheres to the culture of patriarchy, PKS has many core women cadres and produce integrated programs for women's empowerment.

Classroom Wall Color Selection at Public Elementary School in Salatiga

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Keywords: Wall color, Classroom, Environment, Elementary school

Indonesian elementary students spent 7-8 hours learning in schools. Mostly, they spent their time inside the classroom do their activities. Learning process needs ideal condition. This condition provides an atmosphere that makes learners feel comfortable and happy to follow the teaching and learning process. Conditions where students can learn comfortably and happily. Learning is inevitably related to the environment. The intended environment is the class and social conditions (interaction) when the learning process happen. Classes have structures that can be manipulated to give students learning facilities in the classroom, namely the color of the wall. Wall's color can be simulated according to the condition of the students. Color has effect on visual and psychology for students. The purpose of this article is to provide an overview of color that suit to the wall and can be applied to public schools in Salatiga. Based on the results of these studies indicate that, the colors used between lower classes and upper classes have no differences. All classes in public elementary schools in Sidomukti District, Salatiga have the same color design.

In addition, there is the use of ceramics on the classroom walls. Green and yellow dominate the most widely used colors in the school followed by beige and white. The application of color to the classroom wall should be in accordance with the characteristics of the child. The colors will be channeled through the eyes and can affect feelings, mental clarity, and energy levels. Based on age, young children prefer bright colors (Engelbrecht, 2003) and also warm colors are recommended for young children (Pile, 1997). In addition, the colors suggested for the school to give the impression of warm and bright are soft yellow (K.9 / 4), coral color (M.8 / 4), peach color (J.8 / 4) (Darmaprawira, 2002).

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Determinants of Customer Retention: Mediating Role of Customer Satisfaction

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Keywords: Service quality, Company image, Switching barriers, Customer retention, Customer satisfaction

This study aims to analyze the effect of service quality, company image, switching barriers on customer retention through customer satisfaction at LB-LIA Banjarmasin. This research is a quantitative research with explanatory research approach guided by a questionnaire that examines the relationship and influence among research variables obtained by means of using SEM approach in analyzing 141 learning participants who have studied for at least two terms or six months at this English Course, this research is the first study conducted for a service business in formal education especially in Banjarmasin and related to customer retention. The results revealed that service quality has a significant effect on customer satisfaction and customer retention, corporate image has an effect on customer satisfaction but not for customer retention

while switching barriers do not significantly influence customer satisfaction or customer retention and the last customer satisfaction has a significant effect on customer retention. The finding supported Oliver (2006) who found that customer satisfaction can be seen as a fulfillment of consumers' consumption goals are experienced and described by consumers. The research was only conducted in LB-LIA Banjarmasin, more outlets should be involved in future study and try to include other variables. The contribution of this research is as feedback for management in decision making related to customer retention.

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Nashrul-haqq: Origin and Healing Practices in Binidayan, Lanao del Sur

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Keywords: Nashrul-haqq, Binidayan, Mëranaw, Islam, Faith Healing

Nashrul-haqq is a group of Muslims who claimed to acquired “divine powers” after a long period of spiritual training in masjid, forest, water and other empty quarters. They are highly skilled in healing all types of illnesses, can perform extraordinary talents that goes beyond the imagination of an ordinary person such as transformation to animals, seeing and communication to unseen spirits, martial arts, etc. This study sought to introduce and present Nashrul-haqq unique contributions in the Mëranaw society particularly in healing and other relevant circumstances that stimulate their skills for exploitation.

Results of the study were retrieved from the seventy (70) key informants and respondents that consist of Nashrul-haqq, patients of Nashrul-haqq, observers and witnesses of Nashrul-haqq demonstration of skills and,

the Ulama. This is a qualitative-descriptive type of research. Further, the researchers also had immersion with the so called amalan, where Nashrul-haqq gathered to perform faith healing and spiritual training. In-depth interview as well as focus group discussion were employed as method for the oral interview. Respondents were reached thru snowball and purposive method. The concept of Sufism was used to understand the ideological concept adopted by the Nashrul-haqq.

Findings show that Nashrul-haqq are commonly misunderstood by some Mëranaw religious leaders for being associated to jinns (supernatural beings), a practice labelled as a form of innovation of religion. On a positive light, they are regarded as significant members of the Mëranaw society that can be attributed to their list of successful records in faith-healing.

Exploring the Untold Stories of Meranaws in Marawi City During Martial Law, 1972-1981

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Keywords: Martial law, Mëranaws, Struggle, Insurgencies, Human Rights Violation

Human Rights Violations is one great dilemma which concerns every country. This phenomenon is cohered with the tyranny and incompetence of government resulting to a society filled with atrocities. The case of Marawi City during Martial Law in the Philippines is a microcosm of the greater picture of the violation of these rights which this study would like to unfold. In presenting the scope of this study, four objectives are outlined as follows: to explore the untold stories of Mëranaw in Marawi city during Martial law, to examine and investigate the social condition of Marawi on how the people struggled in within the martial rule, to discuss how the people of Marawi respond to the military aggression and human rights violations in Marawi city and, to know how the Mëranaws look at Martial Law at present.

The study is primarily conducted based on oral interviews and archival methods. Key informants (eye witnesses) and those other respondents that corroborated

or give additional information for the fulfilment and development of this study were purposively chosen.

Results of the study show that before Martial law, there was a mutual harmony in Marawi city among the Mëranaw natives, the Bisayas and the Chinese settlers in Marawi. The deployment of Armed Forces of the Philippines (AFP) and Philippine Constabulary brought the community in a chaotic environment where abuses and injustices were experienced primarily by the Mëranaws. To counter these aggressions, the people respond in a collective way of rebellion, some vacated Marawi, some evacuated while others chose to remain. Nevertheless, people of Marawi implied that Martial law's purpose was not established but rather, it cause disarray, wide corruption and intensified rebellion that trigger large scale of problems that shaped the Mindanao problem.

Effects of Environment Vision Knowledge on Students' Character

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Keywords: Change in 4.0 era, Knowledge, Environment, Students' character

Changes in the 4.0 Era in the midst of instability in human contractions and their environment, require strategic steps in the context of social reality change, i.e. through education. It is expected that environment vision education may reconstruct the patterns of understanding that regards environment as an object that can be treated spontaneously in a paradigm building that makes the environment as a part of our lives and requires ethics and procedures for interacting with it. The global warming issue in the 4.0 industrial era is definitely the responsibility for all elements of education implementation, i.e. school principal, students, parents of students as a community in the school environment and its surroundings. Through the research activities on the Effects of Environment Vision Knowledge on Student's Character, it is another expectation that the establishment of education participants' character will be more responsible for the surrounding environmental preservation. The research purpose is to find out the magnitude of the effect of environment vision

knowledge on students' characters. Character education and environment vision have been taught from the grade 1 to grade 6, and therefore after graduating from elementary school the students already have good character, responsibility and care to environment. It is expected that teachers have increased their creativity and innovation in the uses of internet media and understand the development of social media.

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Capacity Building of Apparatus for Reducing Poverty

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Keywords: Capacity Building, Apparatus, Reducing Poverty

This study aims to describe the information about the existing, reliable indicator of poverty accurate and valid in support of poverty reduction programs in Malang district and to know the data collection mechanism or the poverty rate so that strategy and direction of activities in order to support capacity building in data collection apparatus poverty, will support poverty reduction program. This study is a qualitative research with strategy of study cases and uses interview, and documentation in data collection. Based on the research, it can be concluded that, some indicators of the quality based on an update as a data base in integrated way year 2015. From the condition in poverty rate, it is found two data collection mechanism through DAMIS of Regional Development Planning Board (BAPPEDA) and

Application Information System of Social Welfare (SIKS-NG) from Social Department. This creates two sources of different data. The formation of a coordination team accelerates the reduction in poverty (TKP2DES), the social department apparatus of the village. When SIKS-NG is completer and more helped by government programs, so SIKS-NG may provide guidelines of data collection mechanism. It has made poverty operator of data collection on the village level got trouble with the two systems (DAMIS & SIKSNG). Moreover, it will take the allocation of budget to organize the program of SIKS-NG application from social department Malang District.

Need Analysis the Development of English Vocabulary and Pronunciation E-book for SMA/MA Students

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Keywords: Need analysis, Vocabulary, Pronunciation

The aims of this study is to describe the need analysis of the development of English vocabulary and pronunciation e-book for SMA/MA students. The research method used in this study is a qualitative descriptive method and the research was conducted at SMA Negeri 1 Pengasih. Data was collected through observation and interviews involving teacher majoring in English education and students. The results of the research show that: (1) mostly students used an online

translation (google translate) during the learning process, (2) teacher should use more English than Indonesian during the learning process which supported by an appropriate and interesting learning processes and resources, (3) students had difficulty when pronounce word that students rarely used and had more than 3 syllables, (4) the learning processes and resources which had less interesting and less varied.

Social Media Practices in Diverse Society

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Keywords: Social media practices, Practice-based theory, Affordances, Facebook, LGBTQ

This research proposes to analyze how social media practices take its role in diverse society using online ethnography. Using practice-based theory and the notion of affordances, I analyze how LGBTQ issues take a turn between two different groups of accounts, the pro-LGBTQ and the anti-LGBTQ. I collected the data using observation and in-depth interviews. The observation data is gathered in the period of March 2016 until July 2018 by looking at the pro-LGBTQ and the anti-LGBTQ Facebook accounts. Then, an in-depth interview is being used to obtain focused and interactive information about LGBTQ issues. The result shows, even though the issues discussed are the same but the discussions that occur can

be very different between both groups. Furthermore, Facebook users can have different opinions, not only because they belong to different groups, but also because of their way of doing with their Facebook account. As Couldry said, “media consumption” or “audiencing” can only be understood as part of a practice that is not itself “about” media: what practice this depends on whom we are describing and when (Couldry, 2004).

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Health Communication to Support Policy Advocacy Non-Smoking Area (KTR) in the Special Region of Yogyakarta

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Keywords: Health Communication, Cigarette, Non-Smoking Area (KTR)

As social beings, communication activities are important things to do in each of their activities. One of the most important communications in human life is health communication. The purpose of health communication is as a means of delivering information or messages about health to the community. This study uses a qualitative case study method using primary and secondary data. Primary data is obtained through in-depth interviews. While secondary data comes from document reviews. The results of the research show that health communication carried out by the Special

Region of Yogyakarta in supporting advocacy for the Non-Smoking Area (KTR) through advocacy is by socializing KTR policies, social support through cooperation with all elements of society and community empowerment through health education the dangers of smoking to health to all elements of society in the Special Region of Yogyakarta.

The Crisis of American Democracy and Its Impacts on US Foreign Policy

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Keywords:

Recent years have seen a surge of interest in explaining the phenomenal crisis of American democracy. Especially in the aftermath of Donald Trump election as president of the United States replacing Barack Obama. This article is an early effort to find the causal relationships between the crisis of American democracy and the United States foreign policy. How far the crisis has influenced U.S. foreign policy and what are the impacts of it are the core elements of the article. I would argue that the crisis of American democracy has changed the U.S. foreign policy orientation from internationalism to a short of isolationism. Several

researches on American democracy for the last a few years confirmed the negative developments. A research by Rosner and Paler (2018) concluded, among other things, that the American public started to consider the American democracy is declining.

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Funeraria and Modern Funeral Homes: Change, Modernity and Sustainability

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Keywords: Funeraria, Corporate funeral homes, Iligan City, Modernity, Sustainability

Some people make a living out of the dead as the case with workers and owners of funeral homes. Since the 1950's, traditionally operated funeral homes or "funeraria" which are family-owned have been existing in Iligan City, Philippines. However, with the advent of technology and modernity, "funeraria" have to compete with modern funeral homes owned by corporations. The emergence of modern funeral homes created a competitive market on the business of dealing with the dead that includes funeral and burial services, wake preparations for the dead and the bereaved families. The collected narratives of "funeraria" owners revealed challenges on profitability of the business and sustainability of livelihood of families. Such challenges affect the city's social system for political and economic growth since funeral homes bring in job

opportunities, makes the community relations stronger and promote prominence of local politicians. This was also confirmed by (Trompette, 2013). To ensure the undying culture of "funeraria," local government of Iligan must extend support in protecting the "funeraria" against corporate funeral homes, community must fight against excessive consumerism for small funeral businesses to continue and the academe to scholarly sustain the discussions on culture, identity and heritage preservation.

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Women in Politics: The (un)power of Emak-emak during 2019 Election Campaign

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Keywords: Komunitas Emak-emak, Cyber Sphere, cyberfeminist, Patriarchy

Cyberfeminists are considered as new media to promote women's opinions. There is one community that determines itself as a cyberfeminist that promotes gender equality, especially for mothers, this community is called the Emak-Emak Community (the Community of Emak-Emak). This community is interesting because its presence is at the time of election contestation in Indonesia 2019. By using cyberfeminist theory, this study analyzes the existence of patriarchal wrappings that exist in the community of Emak-emak. As a result, there is some patriarchal dominance that exists in the

community of Emak-emak. The author finds that women in this community are still guided by a man who gives or directs his vision and mission; in the end, this becomes a contradiction with the meaning of cyberfeminist. Afterward, there is a power of dominance from one of the presidential candidates' campaign teams to increase the power of their voters.

Issues in the Implementation of Computer-based National Exam (CBNE) in Indonesian Secondary Schools

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Keywords: high-stakes assessment; computer-based test; assessment issues; secondary schools

According to the Indonesian Ministry of Education, the implementation of Computer-based National Exam (CBNE) has been a success and able to improve the assessment quality, logistic efficiency, and student digital literacy in secondary schools. However, there are multiple issues reported during the CBNE, and they seem to increase as the CBNE covers more areas and involves more students. Considering the role of Indonesian CBNE as the pioneer in the digitalised high-stakes assessment for secondary level education in the world, understanding the issues affecting CBNE is crucial for better implementation in Indonesia and future guidelines for other countries which aim to apply a similar method of assessment. This paper is aimed to give insights into potential issues in the implementation of CBNE based on a theoretical analysis of secondary sources conducted through library research, especially from an English education perspective. The paper suggests that academic and technological issues may put

students at a disadvantage during CBNEs. The academic issue centres on the challenges in developing questions forms and aligning with existing curriculum, while the technological issue deals with reliability and availability of the technologies involved in the CBNE. The paper will also offer theoretical solutions to improve the preparation process of the CBNE to accommodate an improved implementation in the short and long-term periods. The issues elaborated in this paper are expected to attract more exploratory-type primary research to gain insights in establishing a fundamental understanding of a large-scale CBNE for high-stakes purposes around the world in this digital age.

SERVICES QUALITY, TAX SANCTIONS, AND TAXATION KNOWLEDGE ON RESTAURANT TAX COMPLIANCE (Survey of Bantul Regency Taxpayer)

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Keywords: Service Quality, Tax Sanctions, Tax Knowledge, Taxpayer Compliance

The purposes of this study are: (1). To test and prove empirically the influence of service quality provided by the government on restaurant taxpayer compliance; (2). To test and prove empirically the effect of tax sanctions imposed by the government can encourage restaurant taxpayer compliance; (3). To test and prove empirically the effect of tax knowledge on restaurant taxpayers on restaurant taxpayer compliance. The problem in this study: a decrease in income differences from 2012 to 2014 and began to rise again in 2015. If seen from the target determined by the local government restaurant tax revenues have revenues above the target set by the government. While the research method uses surveys, with sampling techniques namely accidental sampling, namely taxpayers are found in every restaurant and restaurant in the Bantul Regency area. The population in the study amounted to 531 restaurant taxpayers, the number of samples are 121 restaurant tax payers. The results of the study are as follows: (1). Service quality

has a significant positive effect on restaurant taxpayer compliance; (2). Tax penalties have a significant positive effect on restaurant taxpayer compliance; (3). Knowledge of taxation has a significant positive effect on restaurant taxpayer compliance. This is in line with research conducted by Supadmi and Sucandra (2016) and Z. A et., Al (2015), which state that tax knowledge has a positive effect on restaurant taxpayer compliance taxpayers will tend to fulfill their tax obligations, because taxpayers know the tax paid is used by the government for government activities and can be felt by taxpayers directly or indirectly.

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Halal Tourism: an Analysis on the Concepts and Parameters

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Keywords: halal, halal city, halal tourism

Halal has become a global issue today, not least in Indonesia. At the state level, Indonesia is planned to become the world halal center. This is clearly seen by the Ministry of Tourism trying to increase the number of tourists visiting Indonesia, especially visiting halal tourist destinations. Some regions are trying to compete to become areas that are friendly to halal tourism, including Lombok, Aceh and finally Malang City. Regarding the halal tourism trend, it is important to know about the concepts and parameters used in implementing halal tourism. This study aims to conduct an in-depth analysis of the concept of halal tourism and several parameters that are used as standard for halal tourism destination. The method of data collection uses documentary methods based on a review of both primary

and secondary literature. The results of this study are that the concept of halal tourism can be classified into two importance aspects; first, the act of obedience, which described as a way to appreciate the greatness of God's creation. Second, the act of fulfilling an economic demand. While the parameters of halal tourism have to meet material and spiritual criteria (c.f. Saputra, 2019), such as the activities have to meet shariah regulation which avoid syirk, disobedience, tabdzir or israf, and falsehood. On the other hand, the availability of services and infrastructure which meet the Muslim tourist criteria.

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The Governance of Taman Pintar Yogyakarta as Non Formal Education Institution in Digital Era

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Keywords: governance, learning by doing, Taman Pintar

The Yogyakarta City Government has made innovation by launching the Taman Pintar development program to bring the linkage between the science and technological developments based on culture approach. The Taman Pintar has become a tourist place as well as a place for informal education (edutainment). This study tries to capture the impact of the change in Taman Pintar from open public spaces to semi-business organizations on overall governance. This research uses descriptive method with a qualitative approach. Data were collected through observation, in-depth interview, and documentation studies. The results of the study show that changes to semi-business organizations make rapid changes in employee turnover and have an impact on reducing internalization of the vision and mission in carrying out their work. The use of existing resources such as learning digital teaching aids has not been used optimally and is not properly and periodically treated.

Tabel 1. Attraction of *Taman Pintar* Rides According to Visitor

Respons	Visitors (%)
Very uninteresting	0
Uninteresting	0
Less Interesting	0
Interesting	64
Very Interesting	36
Jumlah	100%

Resource : Latifah (2016)

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Perception of Traders toward the Use of Smartphones as a Marketing Communication Tool of Fruits in Yogyakarta

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Keywords: Perception, Smartphone, Marketing Communication, Fruit Marketing

Smartphones are one of the information technology devices that are currently widely used by traders on their marketing activities. Aside from being a communication tool among traders, smartphones are also used by traders to get market information and communicate products and services to consumers. This study aims to: 1) know the profile of fruit traders in the use of smartphones in fruit marketing activities; 2) analyze perceptions of fruit traders in using smartphones as a marketing communication tool. This research was conducted with quantitative methods and descriptive analysis. Regarding the perceptions of traders in using smartphone as marketing communication tool for fruit marketing, this study refers to variables that influence the process of technology adoption as the Theory of Diffusion of Innovation developed by Rogers (Rogers & Everett, 1983). At least there are five attributes of innovation and some indicators that shape them (Al-Jabri, 2012). These five attributes are: Advantage, Compatibility, Observability, Complexity and Risk attributes.

The results showed that traders in using smartphones for fruit marketing activities were relatively experienced. Furthermore, Samsung, Telkomsel and WhatsApp are brands of smartphones, telecommunications providers and applications that are mostly chosen by traders. Moreover regarding the perception in using smartphones as a fruit marketing communication tool, traders perceived that the use of smartphones provides a relative advantage, with a high level of ease of use, visible benefits and low of complexity and risk.

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Student Self-Disclosure through Instagram Posts to Enhance Classroom Interaction

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Keywords: self-disclosure, education, classroom interaction, social media, Instagram

Self-disclosure has been widely researched as a way to enhance interactions in the classroom and to improve the overall learning experience. Student self-disclosure can be expressed through various media, one of which is social media. Instagram, an indisputably visual platform of social media interaction, has become immensely popular among Millennials and Gen Z-ers. This study aims to analyze the visual aspect of self-disclosing posts from 180 students in two universities in Bali Indonesia, under the Instagram hashtag of “#myworld”, conducted at the beginning of a semester term. Utilizing content analysis method employing two coders with substantial inter-rater reliability (Cohen Kappa > 0.61), the study finds that the typology of self-disclosure falls into three categories: descriptive, evaluative, and topical, with descriptive self-disclosure as the clear majority (82.8%). The themes emerging from the self-disclosing posts include (from the highest prevalence): family, friends, religion, hobby, self, significant other, things/possession, and work/study.

Family	94	52.2%
Self	76	42.2%
Friends	54	30.0%
Hobbies	37	20.6%
Religion	29	16.1%
Things	28	15.6%
Significant other	20	11.1%
Work/study	16	8.9%
Abstraction	12	6.7%

Further qualitative inquiry reveals that self-disclosure through social media is perceived to have lower risk than direct, face-to-face disclosure. It has the potential to be used to get better acquainted to one another with lower perceived risk.

Theme	Frequency	Percentage
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Application of E-Learning in Japanese Learning at Japanese Language Education Program Universitas Muhammadiyah Yogyakarta

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Keywords: E Learning, Japanese Language, Chukyu Bunkei, Nihongo Indonesiago Honyaku

Along with technological developments, online learning has been generally accepted as one component in the teaching and learning process. This is evidenced by the many educational institutions applying e learning. E-Learning is a type of learning system that allows the delivery of teaching materials to students using the Internet, Intranet or other computer network media. E-Learning is a learning process (learning) using / utilizing Information and Communication Technology (ICT) as tools that can be available whenever and wherever needed, so that it can overcome space and time constraints. The Japanese language education program is a study program that has just implemented e learning in the process of learning Japanese in the Middle School 2018/2019 academic year, especially in the Chukyu Bunkei (Intermediary Gramer) and Nihongo Indonesiago Honyaku courses (Japanese Language to

Indonesian Language Translator). So in this paper we will discuss the implementation of e learning in the form of activities carried out, such as assessment, quiz, discussion. Grading in both courses. And the problems faced by lecturers. This study is a descriptive qualitative study with results, in the Chukyu Bunkei (Intermediary Gramer) lecture the activities carried out were Assessment, discussion, and Quiz, as well as the Nihongo Indonesiago Honyaku course (Japanese Language to Indonesian Language Translator). And the problem faced is not yet mastered the e learning page perfectly, e learning participants find it difficult to access e lerning.

Accountability for the Management of Papua's Special Autonomy Funds in Asmat Regency In The 2015-2018 Period

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Keywords: Accountability, Papua's special autonomy funds

Abstract-The death of 72 residents of the Asmat regency in Januari 2018 revealed the latent problems of health and welfare in the province of Papua. Tens of trillions of budgets disbursed by the central government each year did not increase the quality of health and welfare of the Asmat population. Cases of malnutrition still appear every year. The patient mortality rate is five times above the national average. Flushing the Papua special autonomy fund should be able to improve the degree of health and welfare of the Papuan people. This paper aims to explain how accountability for the management of Papua's special autonomy funds in Asmat regency in the 2015-2018 period. The result of the study show that

accountability for the management of the Papua Otsus fund in Asmat district still leaves a lot of problems, both in terms of financial accountability and policy decision accountability. There is no horizontal and vertical accountability. The allocation of Papua's special autonomy funds for education and health is too low. The result of the study can be input for policy makers and policy implementers in Papua so that special autonomy funds can be used to improve the degree of health and welfare, especially in the Asmat regency.

Making Good University Governance (GUG) works at Study Program Level

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Keywords: Good University Governance, institutionalization, implementation.

This paper aims to describe the implementation of Good University Governance (GUG) at Higher Education Institution. This study compares the strategy of two educational institutions, namely the Department of Government Science - Muhammadiyah University of Yogyakarta (Ilmu Pemerintahan/ IP UMY), and the Department of Public Policy and Management - Gadjah Mada University (Manajemen dan Kebijakan Publik / MKP-UGM) in implementing Good University Governance concept of study programs. The research method using a qualitative approach with the process of collecting data using interview techniques, documentation, and observation. The result shows that the implementation of the GUG institutionalization strategy at the department of government science UMY and MKP UGM has gone well. This can be seen from the implementation of eight GUG principles, namely participation, law enforcement, transparency, responsiveness, consensus orientation, equality, inclusiveness, effectiveness and efficiency, and accountability in managing the institution. In general, the implementation of the GUG institutionalization

strategy at IP UMY and MKP UGM have their own differences. This can be seen from the implementation of eight GUG principles, namely participation, law enforcement, transparency, responsiveness, consensus orientation, equality, inclusiveness, effectiveness and efficiency, and accountability in managing the institution. IP UMY AND MKP UGM are different in receiving input, both lecturers, education staff and new students. Differences include their admission program. MKP UGM does not have problems with the quantity and quality of its students. Without promotions, the competition level of prospective new students is very tight because there are many enthusiasts. Thus the quality of input can be maintained. Quality inputs supported by competent lecturers and education staff and adequate facilities make the learning process run optimally. They are further producing graduates who have reliable competencies.

Challenge at Work: Innovative Work Behavior Among Teachers

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Keywords: happiness at work, self-efficacy, innovative work behavior, teacher

Education is one of the biggest challenges for teachers in millennial era. Study nowadays is not just about transferring knowledge, which characterized by unidirectional learning. It is more about how far teachers are able to provide an understanding to students that science is not to be memorized as a mere knowledge only, but to be implemented in every life aspect. Therefore, it becomes crucial for teacher to let go of traditional teaching method and get out of their comfort zone. They need to experiment -try new things- to make learning process more exciting in digital era. This study aimed to find out factors influencing teachers' innovative work behavior. Subject participated in this study were 106 teachers with minimum one-year teaching experience. Multiple regression technique was used to analyze the data. Results showed a significant and positive influence

from happiness at work and self-efficacy on teachers' innovative work behavior, both partial and simultaneously. High level self-efficacy makes no place for fear of failure and stress (Bandura, 2009). Self-efficacy also proven as one of the most important components of innovative behavior in any field (Cropley & Cropley, 2009), therefore it is viewed as the first layer of innovative behavior phenomenon, representing potential for teachers' innovative behavior.

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Motivation of Culinary Tourism Visitors in Pasar Santa Kebayoran Baru

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Keywords: motivation, culinary tourism, visitors

Along with the times, culinary tourism is in great demand by the people, culinary tourism is growing rapidly because the ideas developed are very unique and varied, thus increasing people's motivation to enjoy culinary trends in Jakarta, one of which is in Santa Market, Kebayoran Baru. This study aims to determine the characteristics and motivations of visitors to a culinary tour in Pasar Santa, Kebayoran Baru. The method used is descriptive method. The procedure of data collection was done by distributing questionnaires to 100 visitors who had a culinary tour at Pasar Santa on

the weekend. Based on the results of the study, cultural motivation got the highest average value of 4.11, fantasy motivation got an average value of 3.98, and physical motivation got an average value of 3.74 and social / interpersonal motivation had value the lowest average is equal to 3.57. The results of the study with an average of 4.82 showed that visitors were motivated for a culinary tour in Santa Market.

A Qualitative Research on Sustainable Practices in Organic Apparel Industry

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Keywords: Price, Advertisement, Knowledge, Value, Organic

Abstract-India is the second largest global textile manufacturer and its apparel market is expected to grow yearly at 11.1% (CAGR 2019-2021). The nation accounts for 74% of global organic clothing production which has gained momentum recently due to increasing awareness on health and environmental hazards associated with conventional clothing. Organic apparel is made from fabrics produced in the absence of chemicals and pesticides. Organic fabric retailers are becoming responsible and adopting ethical values to remain competitive in changing market scenario. Limited purchase of organic clothes in domestic market is alarming and gained attention of scholar. Hence, current study explored sustainable practices followed by retailers and consumers towards consumption of organic apparel product in India. A qualitative approach is adopted to identify key determinants from research gap in literature. Semi structured interview was conducted with a group of organic clothing retailers to gain insight into consumer purchase behavior. Content analysis was carried out to analyze emerging themes and subthemes.

Conceptual framework has been developed. Findings indicate that Green price, Green advertisement, Green knowledge and Green perceived value as critical influencers. Suggestions are made to encourage sustainable practices towards consumption of organic clothing for the betterment of surrounding and society at large. Outcome also indicate that organic cloth market is growing which is supporting latest media coverage which states buyers demand for organic apparel is on surge causing more producers to adopt organic clothing products in their product line in India (Times of India, 2019) and as per study by Mishra & G. (2018).

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A POLITICAL EDUCATION MODEL OF POLITICAL PARTIES IN INDONESIA (An Effort to Look for Alternative Model Based on Gender Sensitivity)

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Keywords: political education model, gender sensitivity, political parties

One of the classic reasons for being a scapegoat from women's political backwardness is a matter of patriarchal culture, where, women are considered to be more suitable to take care of domestic (private) areas while men in the public sphere. This reason certainly tends to be cliched, because if we are honest, the low number of representation of women in the political space cannot be separated from the influence of the political party (political party) platform itself. The partisanship of political parties towards gender equality is still half-hearted. As an important pillar of democracy, it is time for political parties to take on the role of making the agenda of women's representation successfully. This study aims to find out the political party platform. What

is the model of political education carried out in political parties? Is it based on gender sensitivity? The results of this study indicate that from the platforms of four political parties (PDIP, Golkar, Gerindra and PKS), the missions, objectives, and gender sensitive programs have not been explicitly stated yet. In the four political parties, there has been no specific implementation of gender sensitivity-based political education. Only a few programs are related to the field of women. From the conditions of political education mentioned above, a model of gender sensitivity-based political education can be developed.

SOME PHENOMENA THAT OCCUR ON SUBJECT DURING RECORDING DHIKRULLAH BY USING EEG

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Keywords: dhikrullah, recording, fenomena.

Abstract-Dhikrullah, in the Koran mentioned as one of the main commands to Muslims, but the study of mentioning the name of Allah scientifically in order to find out what phenomena occur in humans when doing dhikrullah until now has not been maximized. This study is an academic response to the phenomenon of dhikrullah which has emerged frequently among Muslims lately. This study used qualitative data from 4 informants to find the dhikrullah model and quantitative data from 10 subjects were obtained through Electro Encephalo Graf to see the effects of dhikrullah on brain waves. The results show that there is a relationship between the scalp hygiene with brain waves. Special

room dim light affect brain waves. Tense skin affects brain waves. Doing hyperventilation as in dhikrullah helps to detect disturbances in the brain. Closing eyes during dhikrullah produce alpha waves in the brain. Dhikrullah by moving the tongue can be recorded by using EEG. Therefore, the authors conclude that this study is a new approach to see the phenomenon of dhikrullah. The United Nations, especially WHO can use the phenomenon of dhikrullah as a new approach to help people who need a solution from a permanent spiritual approach.

City Branding Strategy and Local Government Readiness

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Keywords: city branding, local government, Pinrang

City branding can be started from extracting the potential of regions in Indonesia which can fit as qualified for world qualifications. Indonesia Ministry of Tourism's policy also emphasizes that the regional government must also build a brand for the region, which is in accordance with the potential and positioning of the target area so that it can benefit from awareness, reputation, a good perception of a tourist destination, encourage an investment climate, and increase tourist visits to tourist destinations. This research is part of the 2018 Kemristekdikti PDUPT scheme research. Using FGD,

in-depth interview and observation of government officers in Kabupaten Pinrang, South Sulawesi, during February to December 2018, it is known that the regional government generally does not have sufficient knowledge about the city branding formation strategy. Therefore, it is necessary to socialize the importance of city branding for the region as well as training to form a city branding strategy.

Compliance Bargaining Mechanism as the Way to Ended Iran-Iraq War 1988

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Keywords: compliance bargaining, conflict resolution, regime, ceasefire

Abstract-Conflictual issues can be about economy, culture and values, or even a border dispute. The class cannot be avoided because of several issues triggering the conflict and also several interests. One of the bigger wars that can be was the Iran-Iraq War at 1980-1988. This war brought the long history between both of those countries, which were related with border disputes, ideological influences, and economic war. Those of both countries is thinking that if the war is still being run, it is not giving any good advantage. The damage was so big. So, it required a process to bring the two states involved war into one meeting to talk about peace or end the war. The process is called a peace process. In this case, the peace process arranged by the involvement of third party.

The United Nations take a role as the third party in Iran-Iraq War by formed a Resolution no 598. In the resolution the council expressed its concern that, despite its calls for ceasefire, the conflict between Iran and Iraq continued with heavy loss of life and material destruction. The Iran-Iraq war was ended through the resolution no 598 that was produced by the United Nations. Furthermore, this paper argue that the way of the United Nations ended the Iran-Iraq war through Resolution no 598 is implementing the theory of compliance bargaining in conflict resolution.

The Farmer's Willingness to Preserve Rice Farming in Suburban Areas in Sleman Regency Yogyakarta, Indonesia

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Keywords: willingness to preserve, rice farming, suburban, agriculture land sustainable food

Abstract-This research aims to know the level of knowledge of farmers about government regulations on the protection of agricultural land sustainable food and identifying the factors that influence the farmer's willingness to preserve rice farming. The location was determined by a purposive method in six villages which belong to suburban area of Sleman regency. Sixty farmers were chosen as respondents using simple random sampling technique. This research used the logistic regression to analyze the factors that influence the farmer's willingness to preserve rice farming. The result showed that knowledge of farmers about government regulations on the protection of agricultural land sustainable food was still shallow. Logistic regression analysis showed that age, farming experience, farming income, availability of credit and land status significantly influenced the farmer's willingness to preserve rice farming. On the average, the probability of the WTPs farmer in suburban area of Sleman regency was low and it was about 53.33%. The significance testing of the variables showed that knowledge factors, family members, education, outside farm income, dummy farmer group participation did not affect rice farming WTPs in the suburban area of Sleman Regency.

This result is different from the findings of Bravo-Vargas et al. (2019) which stated that education, although brief, would increase awareness of controlling natural resources and the environment. Even Larue et al. (2017) stated that highly educated residents were very willing to pay for pollution control. In line with the findings above, Gupta, M (2016) has found that education, income, and age played an important role in asking the community for environmental sustainability.

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Multiple Online Identity in the Era 4.0

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Keywords: multiple identity, social media, 4.0 era, students, Jogjakarta

Modern Indonesian society has entered the era of 4.0. This is indicated by the connection of society with communication and information technology which connected interplaying. Big cities are not the only producers of information that are accessed. A number of suburb regions are also producing and generating messages in social media spaces. The rapid adoption of 4.0 technology cannot be separated from the role of the young generation who are very adaptable to change. Those are the ones who become the catalytic agent of change in the present era. The challenge of 4.0 era does not only have an impact on one side. This technology also presents a digital society with diverse identities.

Even one person can have a number of online identities. This paper will raise how multiple online identities are displayed in digital spaces among students, especially Jogjakarta students. The findings show that multiple online identities are indicated by the resource person in two main ways. First, an on line account with a diversity of account contents adjusted to the tendency to show identity on each issue raised. Second, more than one account with an on line identity that is different from one another.

The Meaning and the Function of Tari Malaikat In Bali's Christian Church

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Keywords: meaning; function; dance

Dance is not just a movement, but there is a message to be conveyed through its movements. In Bali, dance is like flesh and blood, or something that cannot be separated in every activity, both in performances and in religious activities. Tari Malaikat or Angel Dance is a dance that becomes an icon in the Balinese church. This dance tells about angels who come down from heaven to share love and peace to all human being. Qualitative method is applied in this study. The data collection

includes observation and interview. From the research, it can be concluded that there are two functions of Tari Malaikat or Angel Dance in Bali's Christian Church, the first is ritual function and the second is educational function. While the meaning contained in dance is forgiveness, sacrifice, peace, and joy.

Development of “Museum Sandi” Information Application based on Augmented Reality

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Keywords: Augmented Reality, information application, museum sandi

Some people argue that museums are the building for saving antiquities only. Besides, Government Regulation No. 6/ 2015 stated that museums intend to educate and entertain people. For education purposes, museums can provide information and communication about their collection to visitors. One of the museums in Yogyakarta, which has communicated and informed the collections properly, is Museum Sandi. The museum is amazingly famous nowadays because of the number of visitors increases monthly. The other facts show that the location of the museum is very strategic and it is free of charge. However, the number of educators is limited which is

much less than the number of visitors. It causes many difficulties to transfer the information about the collection optimally to the visitors. Because of this, visitors are not able to get the whole knowledge provided by the museum’s collections. This can be resolved by an innovated application based on augmented reality. This application, hopefully, can be a solution to deliver the information and knowledge about the museum independently. Finally, visitors can get more and optimal knowledge about the museum’s collections.

Youtube, dari Mass-Self Communication Menjadi Komodifikasi Khalayak dan Pekerja

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Keywords: youtube, mass-self communication, commodification

Komunikasi merupakan berbagi makna melalui pertukaran informasi di mana prosesnya ditentukan oleh teknologi komunikasi yang digunakan, karakteristik dari pengirim dan penerima, budaya yang ada dibelakang dan bagaimana komunikasi itu dilakukan. Pada proses tersebut harus dibedakan jenis komunikasi yang dilakukan. Namun dengan perkembangan internet, bentuk baru komunikasi interaktif muncul, Castell menyebut ini sebagai bentuk komunikasi massa yang baru, atau disebutnya sebagai mass-self communication. Ini adalah komunikasi massal karena berpotensi menjangkau khalayak global, pada saat yang sama, itu adalah komunikasi intrapersonal karena produksi pesan itu dibuat sendiri, definisi dari penerima adalah self-directed. Pada perjalanannya mass-self communication bermanfaat bagi keterbukaan publik seperti yang dilakukan oleh beberapa kepala daerah di Indonesia, Ridwan Kamil dan Ganjar Pranowo. Strategi mass-self communication yang dilakukan kedua kepala daerah ini pada dasarnya hampir memiliki kesamaan. Penempatan konten berdasarkan kesesuaian platformnya sehingga berhasil mendorong partisipasi masyarakat. Partisipasi masyarakat pada akhirnya dapat menyelesaikan program

pemerintah karena ketepatan dalam penggunaan media sosial yang efektif dan efisien. Platform YouTube berkembang menjadi semacam industri tersendiri, dengan pengguna yang dapat menjadikan YouTube sebagai lahan untuk peluang mendapatkan income atau bahkan sebagai profesinya. Mereka kini yang mengandalkan penghasilan dari YouTube akrab disebut dengan YouTuber. YouTuber, baik individu, kelompok, komunitas, hingga perusahaan besar, memproduksi video- video uniknya sendiri, khusus untuk ditampilkan di YouTube. Materi yang didapat oleh seorang YouTuber, sebenarnya tidak mudah didapatkan. Syaratnya, channel harus telah mencapai 1000 subscriber dan 4000 jam waktu tonton dalam periode 12 bulan terakhir. Mereka tidak hanya memproduksi tetapi juga mendistribusikan kepada khalayak yang lebih banyak. Terjadi komodifikasi khalayak dan pekerja di mana produsen dan konsumen garisnya kabur dan kemudian disebut prosumer. Platform ini menghasilkan keuntungan yang besar bagi pemilik, tentunya lebih besar keuntungan yang didapat pemilik daripada penggunaanya.

The Inefficiency of Zakat Management in BAZNAS Sragen Indonesia

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Keywords: philanthropic institutions, governance, transaction cost, asymmetric information, performance

The purpose of this paper is to analyze the problems of zakat governance in Indonesia, with the case study of BAZNAS in Sragen Regency. This is a qualitative research with the perspective of institutional theory. Results indicated that: (1) BAZNAS Sragen has a relatively high transaction cost due to several factors, particularly the costs of seeking information and monitoring; (2) BAZNAS Sragen conducts asymmetric information which is characterized by the lack of

transparency, accountability, and fairness; (3) BAZNAS Sragen has a potential to perform opportunistic behavior in the form of political contamination in the distribution of ZIS funds. The less efficient of the governance causes the less optimal performance of BAZNAS Sragen, either in the limited amount of zakat fundraising or in its performance in empowering the poor.

The Net and Political Segregation (The Polarization of Discourses of Anti-Pancasila in Twitter)

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Keywords: Political segregation, social media, discourse, demonization

Ben Anderson (1983) stated that the media creates imagined communities through the use of images and vernaculars that perpetuate stereotypes to the audience. It, then, relates them to one another. But, the use of social media today makes the imagined community concept paradoxical. People now tend to seek out social setting they prefer, and they cluster in community of like-mindedness. Accordingly, the nation will grow more politically segregated. The result is that intolerance grows in political differences, making national consensus impossible. This research attempts to show the segregation emerges through the conversation in social media. Using Critical Discourse Analysis of the Twitter accounts discussing the issue of Anti-Pancasila, this research shows the political segregation formed by the Twitter users. With the background of the

presidential elections in Indonesia, this research illustrates the ideological orientation turns to polarization occurred, which encourage us to reconsider the concept of imagined community. As the results, the net segregation is triggered by the politics of othering through the practice of labeling and demonizing (c.f. Befu, 2011).

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Challenge and opportunity: Chinese Muslims in political contestation in Indonesia

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Keywords: Chinese, muslim, opportunity, politics.

The position of China-Muslims as a minority, empirically experienced disruption of social relations among the Chinese themselves, as seen in the style of integration of social relations between Chinese-Muslims and Chinese-majority non-Muslims. Alienation also appears in more serious relationships such as economic ties where ethnic Chinese connectivity in Indonesia which massively controls the national economic network must be excluded for these Chinese Muslims. The phenomenon of the alienation of Chinese Muslims in the middle of the majority Chinese ethnicity is apparently inversely proportional to the socio-political acceptance they get from the majority of Muslim Indonesians from Javanese, Sundanese, Bugis and others. Chinese Muslims have more closeness with indigenous groups in

the archipelago generally. From a democratic perspective, this article focuses on the question of how the political opportunities of Chinese Muslims in the democratic system in Indonesia today. By qualitative research, the findings show that in general elections 2009, 2014 and 2019, many elected candidates were Chinese Muslims both in local parliaments and regional executive positions. This paper argues that in its disadvantaged position, Chinese-Muslims in Indonesia have potential opportunities in the arena of democratic political contestation.

State Sovereignty and The Power of Social Movement Transnationalism

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Keywords: state sovereignty, post-westphalian movements, global civil society, state formation

This article will critically discuss the emergence of the traditional social movement towards state sovereignty. The power of global civil society has become a new superpower in global orders. Their two previous existence complements transnationalism, namely state transnationalism and market transnationalism. State corporatism tends to produce

power and coercion. While market transnationalism tends to make profit and exploitation. The social movement transnationalism advocate values. Will globalization be the third actor? Using the perspective of critical theory in international relations, this paper is to elaborate that transnational social movements will create state sovereignty deformation.

The Determinants of The Sustainable Slum Beautification Program
Case Study Kampung Warna-Warni Jodipan, Malang

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Keywords: structuration, beautification, sustainability, kampung

This study aims to understand the determinants of the sustainable slum beautification (SB) program in Indonesia. Ever since capturing worldwide attention in this decade, the SB program has emerged as one of the favorable slum improvement programs. It promises a betterment of living condition for slum residents, compared to the eviction programs. However, many slum settlements in Indonesia failed to achieve the expected result. It indicates the sustainability of the program is the issue, which demands the active participation of the residents, as a form of reproduction of the social system. This study employs a case study research method. Kampung Warna-Warni Jodipan (KWWJ) in Malang (East Java) is selected as the research location, because of its reputation as one of the best practices of the sustainable SB program in Indonesia. The primary data encompasses the social system and practices also physical condition before and after the SB program. It is obtained by observation, semi-structured interview and participatory mapping of the physical

condition of the neighborhood, as the source for descriptive analysis. The finding demonstrates the SB program, as an external intervention, is required to flourish agents to produce agencies for the reproduction of the social system and practice. This finding may complement the structuration theory by Giddens (1984), in terms of how the agency ignites, which is still vaguely explained. However, it has to be supported by the active participation and support from other residents. It is the collective of urgent interest, which holds a pivotal role in the production of the agency. This result contributes to refine the sustainable SB program in the future, especially in Indonesia.

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Science Teachers Competence in Utilize Learning Resources

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Keywords: science teachers, teachers competence, utilize learning resources

This study aimed to determine: (1) learning resources used by science teachers, (2) the ability of science teachers to utilize learning resources, and (3) the implications of using learning resources on the quality of science teachers in the learning process. This study was a field study with a qualitative approach. The subjects of this study was science teachers at SMP N 3 Purworejo. Techniques used in data analysis was an interactive model by Miles & Huberman including data collection, data reduction, data display, and conclusion. The result showed that learning resources used by science teachers

include in the environment around the school, the environment around the residence of learners, and learning outside of school. The ability of science teachers to utilize learning resources, overall all science teachers of SMP Negeri 3 Purworejo was able to use it. Implications use of learning resources on the quality of science teachers in learning process was teacher able to give more motivation, maximize learning time, and maximize creativity.

Engaging Millennials on Chatbot Messenger for Eco-Tourism

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Keywords: Eco-Tourism Information; Telegram Messenger; Millennials; Yogyakarta.

Special Region of Yogyakarta is known as one of the tourism icons, with 10 natural tourism clusters with eco-tourism concept spread throughout the region as tourism potentials, along with 99.2% domestic tourists interested in natural tourism (Indonesia Government Tourism Office, 2015). Most visitors during the 2017 period were in the South East Coast cluster with excellent tourist attraction in Parangtritis beach and Gumuk Pasir area, 2,771,766 visitors (Indonesia Government Tourism Office, 2017) which increased from 2,229,125 in the previous year (Indonesia Government Tourism Office, 2016). This tourism phenomenon contributed by word-of-mouth information dissemination that turns into peer-reference, which motivates individuals to visit attraction. Millennials as the most internet users; a total of 49.52% (Indonesian

Internet Service Provider Association (APJII), 2017) of Indonesia's population is the largest contributor to tourism information through frequently accessed digital platforms, specifically messenger and social media (Indonesian Internet Service Provider Association (APJII), 2017). This study aims to describe the chatbot feature on messenger platforms used by millennials to provide information in an interactive manner while explaining chatbot potential as auto-responder accommodates requirements of tourism information in the Special Region of Yogyakarta.

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Service Management of Customer Complaints In The Tourism Industry In Yogyakarta

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Keywords: management, services, customer complaints, tourist rides.

The world of tourism is currently growing rapidly, this is believed by the many regions that have begun to develop their tourism potential in order to present interesting treats for migrants who want to release fatigue in the midst of busy work, especially for

millennials now. the need for lifestyle and the need for social media, making travelers hunt interesting and unique photo spots. One of the attractions used in providing services to travelers is Sindu Kusuma Edupark Yogyakarta by formulating a problem how management

handles customer complaints in order to continue to provide the best service so that this tourism vehicle still exists in the tourism industry and can compete with vehicles that similar in the Yogyakarta region. The research method used in this case is observation and in-depth interviews with the tour manager to deepen the data collection process and can produce the right analysis. The results of this study are expected to be able

to implement a systematic procedure and plan for handling customer complaints, so that anyone who becomes a manager can still refer to established and tested procedures.

Government of Yogyakarta City Communication in The Arrangement of Malioboro Area In 2015-2016

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Keywords: Government Communication, Urban Planning, Yogyakarta City

This study aims to understand the government communication process of the Yogyakarta City Government in the arrangement of Malioboro area. The government communication is done related to the policy that will be done by the government itself. Due to the community participation will be built in this government communication process, thus policies can be implemented properly. This research is undertaken in the

city of Yogyakarta by involving the Tourism Department of Daerah Istimewa Yogyakarta, Tourism and Culture Department of Yogyakarta City, Technical Implementation Unit of Malioboro (UPT Malioboro), Parking Community, and the Malioboro visitors. In the government communication process, there should be six elements that must be fulfilled in order to proceed the communication process: who is the speaker or

communicator, the message or information to be conveyed, the channel or message of media delivery, the audience or communicant, and the effects or feedback from the communication process. This research uses qualitative method that aims to explain how the process of regulating communication in the arrangement

Malioboro area.

Politik Identitas Umat Islam Pasca Reuni 212 Pada Pemilu Presiden 2019

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Keywords: Political identity, Islam, Presidential Election

The "212" event in 2016 showed that Muslims basically had extraordinary strength and unity in the socio-political field and this was reinforced by Reunion 212 on December 2, 2018. However, the political system of the power of Muslims was divided into several political parties, oriented and based on Muslims. What is the development and political direction of Muslims in the 2019 Presidential Election on 17 April 2019 later? Does it still show strength and unity? And what factors influence it?

This research will be studied using the theory of

identity politics and democracy to analyze the orientation, direction, strength and unity of Muslims. This study uses qualitative research methods with the technique of collecting data by observation, reference study (documentation) on the phenomena and facts of strength and unity of Muslims.

The Status of Vocational Identity in terms of Career Exploration on First-year University Students

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Keywords: vocational identity status; career exploration; students.

The current study is aimed at describing the status of vocational identity in terms of career exploration on university students. This study employed a quantitative approach with descriptive design. The study was conducted with 180 students of Guidance and Counseling Department of Ahmad Dahlan University. They were selected through random sampling technique. Career Exploration Scale emerged as the instrument of the study. The data were analyzed using simple descriptive statistics. The result of the study showed that 57% of first-year Guidance and Counseling Department (BK) students' career exploration was categorized as low, and 43% of them was categorized as high. The result of the study can be used as the preliminary study for developing students' vocational identity, particularly

with regard to career exploration through career guidance and counseling specified in developing students' vocational identity. The result is in accordance with Marcia & Archer (Fadjukoff, 2019) who said high exploration indicates an adolescent's deep understanding and knowledge related to the available alternative in identity achievement, the adolescent's judgment on the criteria of choice and regarding their self-ability to take the choice,

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Descriptive Study Related to The Problems of First-Year Student in Guidance and Counseling Major Academic Year 2015/2016 – Education and Science Faculty of Ahmad Dahlan University

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Keywords: The Problems of Student, PCL

Guidance and Counseling Major which is a part of Science and Education Faculty has determined the problems of first-year student in order to improve the learning process. This matter is used as a preventive step related to first-year student. In order to recognize the problems which are happened by the first-year student, it needs Non-Test Assessment Process that is using Problem Check List (PCL). This study has the objective to determine the cases which are experienced by first-year student of Guidance & Counseling Major, Academic Year 2015/2016, Science and Education Faculty of Ahmad Dahlan University.

Problem Check List (PCL) is a set of problem probability statement list which is arranged in order to stimulate the problem explanation that is happened towards every individual. PCL through this research has one type that is developed by Ross L. Money. These PCL has 12 fields of problem which each field of problem consists of 30 problem statements. The population of this research is all of first-year student 2015/2016 in Guidance & Counseling Major - Science and Education Faculty in Ahmad Dahlan University. The date of spreading the PCL questionnaire starts from October 6,

2015 until October 17, 2015.

The result of this research is known that the problem related to the (1) habit of study is 92%, (2) healthy is 91%, (3) relationship of love is 86%, (4) family is 85%, (5) curriculum adaptation is 83%, (6) social relationship is 82%, (7) religion and moral is 81%, (8) recreation is 81%, (9) school environment adaptation is 81%, (10) private matter is 77%, (11) future life related to job position is 77%, (12) economic situation is 64%.

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Cyber Resilience Small and Medium Enterprises of Handicraft: Opportunities and Challenge of Smart Economy

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Keywords: Cyber Resilience, SMEs, Handicraft, Smart Economy, Smart City, Cyber Attacks

This paper seeks to examine cyber resilience of small and medium enterprise of handicraft under the scheme of Semarang City smart economy platform, whether the enterprises well prepared with the cyber system and has the ability to employ the facilities provided by the government and whether the government also provided adequate governance and legal framework to provide secure environment that support development of cyber resilience within their smart public services. This paper starts by explaining the

state of play of cyber resilience of SMEs that correlated to utilization of cyber space facilities. Next, analysis the governance and legal frameworks that provided by the government to support cyber resilience and how the opportunities and challenge could be addressed to establish robust cyber resilience.

The Politics of Tionghoa at Grassroots Level (A Study of the Village Head of Tionghoa in Bangka Islands)

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Keywords: Tionghoa, Electoral, Village Head

In the long term, the Tionghoa have avoided electoral political dynamics. Even further, Tionghoa ethnic groups avoid social spaces that openly connote the political world. Marginalisation and discrimination are the two right words to describe the position of the ethnic Tionghoa until later the situation changes along with the fall of the New Order and the onset of reform. The emergence of Ahok with its various dynamics has at least become one of the momentum of the rise of ethnic Tionghoa in the political world. In smaller spaces, at the village level, the phenomenon of the election of village heads from Tionghoa ethnic groups illustrates political change at the grassroots level. This paper, through qualitative research methods, explores how the dynamics of power of the ethnic Tionghoa who become village heads on Bangka Island. Interestingly, the ethnic Tionghoa who have been known to be apolitical, then enter public spaces that come in direct contact with diversity. This paper finds that actually Tionghoa politics at the village level has its own dynamics. Democracy

that develops, extends at the village level and increases the political participation of ethnic Tionghoa. Not because of the phenomenal influence of Ahok, but political elites at the village level actually pioneered careers from community social organizations. When serving as Village Heads, they generally played a dynamic role and carried out a politics of pluralism, an anomaly when the early reforms of their desires were dominated by long-lost identity claims. Thus, the expansion of the meaning of participation and activity in a broader spectrum, is interesting in relating it to the study of Reid (2009) which says that a new label is needed for Tionghoa. The new label, according to the authors, departs from this study is a label that is more substantive political participation in social spaces, half of electoral politics, half of politics is pluralism.

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Communication Management of “Happy Branding” in Creative Youth at Indonesian Heritage Sites

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Keywords: communication management, creative youth, “happy branding”

Creative Youth at Indonesian Heritage Site is a program held by United Nations Educational, Scientific and Cultural Organization (UNESCO) in collaboration with Citi Indonesia (Citibank) to promote the strengthening of cultural and creative industry in Indonesia. The program aims to encourage the capacity and participation of youth who lives around the heritage sites of Prambanan and Borobudur temples to have a better income, as well as helping them in local economy. In its second year program, UNESCO made a collaboration with several Universities in Yogyakarta to contribute in “Happy Branding”, which trying to figure out problems of product identity and marketing strategy

which is often faced by people of middle sector business, especially youth. Therefore, this research aims to understand and map the process of communication management of Creative Youth at Indonesian Heritage Sites through “Happy Branding”. This research uses the qualitative method with case study approach, accompanied by data collection through in-depth interviews with the Project Coordinator of UNESCO and Srengenge Culture Unit as the managing party. The result of this research is expected to be applied in an effective communication management of planning, organizing, and directing information.

Millennial's ASN: Disruptor of Bureaucracy Towards Humanocracy and Becoming Digitocracy

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Keywords: Millennial ASN, Disruption, Bureaucracy, Humanocracy, and Digitocracy

The existence of the millennial generation in the digital era today has disrupted various things. Millennials have changed everything's. Millennials have penetrated the public sector, formed new work patterns, managed digital-based activities, and optimize digital media channels as a means of communication, work processions, and publicizing their performance. Government bureaucracy is increasingly dominated by millennial civil servants (ASN). Will its existence disrupt the bureaucracy, turn it into a humanocracy or directly adapt it as a digitocracy? This study aims to describe the existence of millennials ASN and its work in the government bureaucracy. The method used is descriptive-qualitative. Data analysis through stages of data reduction, data presentation, and

conclusion/verification. Studies show that the existence of massively millennial's ASN in government organizations will disrupt bureaucracy by reforming management and work patterns becoming more human and digitally based. This situation created a humanocrats who shifted the role of bureaucrats and even adapted it to become a digitocrats. The study concluded that the development of digital technology would shift the working pattern of millennial's ASN to be more humanistic through utilization of digital devices. It is recommended that the Government should facilitate the transformation of bureaucracies and formulate adaptation strategies into digitocracy.

Shifting Journalistic Ethics in the Internet Age, Case Study: Violation of Journalistic Ethics in Journalistic Products and Journalist Behavior in Online Media

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Keywords: Internet, Journalism, Online Media, Journalistic Ethics, News

The internet era has contributed greatly to the dynamic development of journalism. The consequences of the presence of the internet in journalism change at least two basic things, namely the presentation of journalistic products and the behavior of journalists. The internet has given rise to new media platforms, namely online media and changing information dissemination to be faster and more massive. The internet also affects journalist behavior in the field in the process of searching, processing and disseminating information. On the one hand, journalistic ethics as signs that regulate journalistic products and journalist behavior has shifted in the era of internet journalism. The Journalistic Code of Ethics is

considered to only regulate the ethical side of conventional journalism practices and does not cover online journalism. This is what makes many violations of journalistic ethics in online media. This study aims to find out how the shift in journalistic ethics in online journalism. This research will also describe how forms of journalistic ethics violate in online media both in terms of journalistic products and journalist behavior. The results of this study are expected to provide input to the articles in the Journalistic Code of Ethics to be applied not only in the practice of conventional journalism but also online journalism.

An Analysis of Summative Test on the Eighth Grade of Muhammadiyah Junior High School of Yogyakarta

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Keywords: Multiple-choice; summative item analysis; difficulty index; discrimination index

This piece of work was aimed to survey intended to determine the level of difficulty and power of discrimination of a final test with the use of multiple choice applied in the subject of Aqidah-Akhlak for the Muhammadiyah Junior High School's Eighth Grade in Yogyakarta. Sample of this survey is 200 students of the Muhammadiyah Junior High School's Eighth Grade in Yogyakarta. It analyzed 40 items of the multiple-choice questions provided by a group of teachers provided by Muhammadiyah provincial board. This research was held by analyzing different levels of difficulty and discrimination index of any items further interpreted into established criteria. The main source was

the document of that multiplechoice instrument. The results showed that the difficulty index was considered proportional with 60% moderate, 27% easy and 13% hard. Meanwhile, the power of discrimination was good with 25% good, 62% fair and 13% poor. Therefore, it is not good assessment instrument to measure capability of pupils. Enhancing the quality of test especially on administering and developing Multiple Choice Questions (MCQs) will make easier for teacher assessing the quality of learning and more able to is measuring the capability pupils into learning competences.

Performance of Mangupa Tradition

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Keywords: Mangupa, performance, values

Mangupa tradition in the context of ideology is as a system of public trust that must be accomplished for a pride although there are times the couple have to sell an existing property to support it. So this mangupa tradition tend to serve as a prestige to set an image for the haves in the community. The analysis results of performance data of mangupa found the local knowledge values such as: a) the human relationship with God, b) the meaning of human life, c) the human relationship with the natural surroundings, d) the human relationship with time, e) the behavior to be industrious and enterprising, thrifty, and religious, to get along peacefully with each other; f) the aesthetic value of humility, customary of politeness, g) the expectation that the marriage will be the marriage of a lifetime; h) The value and philosophical significance of indigenous

material derived pangupa animals, plants, and derived from nature; i) The bride and groom who have not through a traditional ceremonies (maradat) retains the customary effect throughout the traditional debt to be paid until they have the means.

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Regulations and Ethical Implementation of CSR Program in Indonesia and Malaysia (Case Study: CSR Program of PT Sarihusada Generasi Mahardhika Indonesia and CSR of Int3Tree Malaysia)

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Keywords: ethical profession, regulations, corporate social responsibility

Public Relations plays essential role to maintain mutual understanding between cooperation and its dynamic environment. Many activities can be done by PR officer, especially Corporate Social Responsibility (CSR) as a breakthrough rule of the game and business ethic in which companies are accounted for. There are at least three overlapping waves: good corporate governance; corporate citizenship and triple bottom line; and business and human rights as the latest wave released by United Nations. Based on these waves, this research will analyze CSR program carried out by PT Sarihusada Generasi Mahardhika Indonesia and Int3Tree Malaysia. This research method uses case study methods and belongs to the type of qualitative descriptive

research. In-depth interview will be done as the primary data and would highlight the laws and ethic issues that implemented between those companies. The results show that there are any difference regulations between Indonesian and Malaysian government to conduct CSR program. These differences make each company made different ethical implementation. Thus, Indonesian company still on secondary waves, corporate triple bottom line. On the other hand, Malaysian company moves on to business and human rights.

Primordialism in the Hoaks and the Role of Millennials in 2017 DKI Jakarta Election

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Keywords: Primordialism, hoax, and millennial

This article wants to describe the presence of primordialism in the hoax in the DKI regional election. This is because the DKI Pilkada is a research reference with its characteristics. DKI Jakarta is Indonesia's digital capital because of the highest internet penetration and the largest social media users, which is 3.5 million people. The abundant flow of information, massive campaigns, and high digital interaction turned out to be dealing with incorrect information, or better known as hoaxes. In the DKI Pilkada, there were around 1900 outstanding Hoaks. Primacy-themed Hoaks also threaten

contestations based on rationality or compete with ideas, ideas, visions, missions, and programs. Millennials as the most intense generation of accessing information on the internet play roles to fight primordial themed hoaxes. The roles of the Millennial generation are carried out based on millennial activity in the voluntary movement. Especially millennials will play a very active role when the candidate they are carrying is the target of the primordial themed hoax.

The Emergence of New Capitalism in Nglepen Teletubbies Village

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Keywords: New Capitalism, Disaster Commodity, Teletubbies Village.

Bantul faced severe damage when the earthquake strike on May 27, 2006 and one village that totally destroyed was Nglepen Village. Then, 72 house-families received house-living aid in unique shape. The construction of the house is a dome shaped, that turned out like a Teletubbies house (cartoon movie in early 2000). Its uniqueness then make Nglepen villagers transform their house-living as tourism village. The debate that occur is how the humanitarian assistance or house aid for victims to live-in after disaster happened then turn into one commodity for economy oriented

goals in capitalism system. The data collection techniques for this paper were interview and field observation. The result shows that there is a new formation of power relations among village government, POKDARWIS, and villager in the circle of Teletubbies Village. These power relations are closely related with profit-oriented in economy aspect. Moreover, the initial situation in disaster and after turns into capitalism after disaster.

The Implementation of Halal Tourism Policies in South Korea (2014-2018)

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Keywords: Policy Implementation; Tourism Policy; Halal Tourism; South

This study aims to analyze the implementation of halal tourism policies in South Korea. This policy has recently emerged, which is around 2014 for halal food certification, and 2016 for halal tourism. With the majority of the non-Muslim community, and had received protests from a number of people, South Korea continued to encourage halal tourism policies. At a young age, this policy can be quite successful. Besides that, this research is intended to find out the supporting factors in implementing halal tourism policies, which are reviewed through four policy implementation variables

according to George C. Edwards III, namely communication, resources, disposition, and bureaucratic structure. This type of research is descriptive-qualitative. The technique of collecting data uses interviews, observation and documentation. The subject of the interview included relevant institutions and Muslim tourists visiting South Korea. In this study, we will discuss the processes and supporting factors for implementing halal tourism policy in South Korea.

Public Open Space Policy in Kaohsiung Taiwan

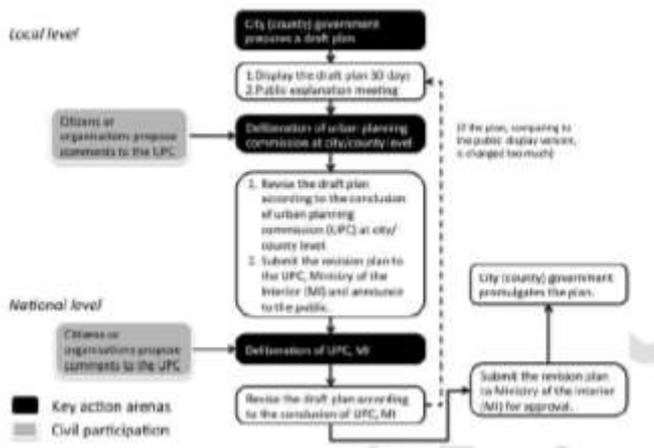
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Keywords: public open space, environmental regulation, environmental protection

Environmental protection is a major issue in Taiwan, the island susceptible by natural disasters such as typhoon, earthquake, flood, landslide and land subsidence. Therefore, it is a necessity to incorporate nature into city development planning. Since the 1980s Taiwan government proposed incentives for the local government trying to prevent an environmental disaster by providing public open space and enacting other policies and law. Kaohsiung is the second largest city in Taiwan after Taipei with rapid growth industrialized port causing more problems like transportation, pollution,

Figure 1 Legal procedure of masterplan-making in Taiwan (Huang, 2019)



poverty, birth growth, and more. Attempt to encompass the problem while improving people’s quality of living the Kaohsiung government developed a smart city as integrated solutions and build a lot of public open space.

The public open space policy in Kaohsiung is in accordance with Articles 42 and 43 of “Urban Planning Act”, which is regulated to enhance the convenience of the citizen’s activities and to ensure a good urban living environment. Article 45 also stipulates the parks, green spaces, squares, children's playgrounds, and stadiums. The public facility in this research is focused on parks. There are 37 parks in Kaohsiung. Parks is important for Kaohsiung people because parks are considered as part of the lifestyle and environmental protection specially to provide better air quality.

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Dakwah Materials Centralization as an Effective Guidance in Digital Era

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Keywords: Dakwah Materials, Centralization, Guidance, System.

The exponential growth of the digital technology has caused a culture shift in the way of accessing fast moved and unlimited information, including in accessing dakwah. To avoid dissemination of heresy and radicalism, several efforts have been made by the Government, Institutions and Islamic Organizations such as forming websites, YouTube channels, and social media accounts. Dakwah Materials Centralization is an alternative solution that can be applied by official authorities (KEMENAG) which emphasizes the standardization of dakwah content as a guidance to be followed by every Da'i, so that the

materials delivered becomes more structured, qualified and standardized. The application of this system will also facilitate the educational materials needs and be an enrichment of study literatures. Dakwah material will be set periodically by providing soft files of PowerPoint slides that can be downloaded by users, so that the dakwah process is more visual attractive and makes it easier to spread.

Capillarity Process in Policy Change: The Study of Open Government Partnership in Bojonegoro

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Keywords: policy change, capillarity process, intermestic learning, open government partnership (OGP).

This paper offers a different explanation to the policy change process as a capillarity process. Open government partnership (OGP), is an idea of government openness with the aim of empowering, fighting corruption, and utilizing new technology to strengthen governance by involving multi-stakeholders. OGP was officially launched on September 20, 2011 on the sidelines of the UN General Assembly meeting where the Heads of State of the 8 founding governments, including Indonesia, supported the OGP Declaration and announced their country's action plans together. At the local level, the Bojonegoro District Government is one of those who implemented OGP even though its success has been awarded, not only at the national level but also at the international level. In previous studies, the implementation OGP in Bojonegoro understood as a Suyoto matter, the regent who has idea of OGP in Bojonegoro, but in another study it seen as as a consequence for Indonesia as one of OGP inisiator to implement OGP at the national level up to the local level. However however, not all regions apply OGP and not all

OGP ideas of Suyoto are immune from the influence of global OGP ideas. Global ideas influence can not be ignored as it can enter by capillarity process through academic forums and cooperation more massive well held by the epistemic community at the international, national, even in the local level. The notion of territorial isolation in the policy process is an illusion. Thus, the process of decentralization policy should be seen as an intermestic phenomenon. The author use advocacy coalition framework to understand the mapping of the pro-cons of the decentralization idea in the domestic and international sphere as the basis concept. The second is epistemic community that has main role to strengthen the ideas to influence the policy change process. The explanation will be managed in three parts; OGP initiation in Bojonegoro, the mainstreaming of OGP idea in the world, and the capillarity process of OGP implementation in Bojonegoro by intermestic learning.

Political News in the National Online Media (Qualitative Content Analysis of the Presidential Elections in Indonesia 2018-2019)

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Keywords: Disruption, Online Media, Politics, News.

Online media inevitably involved in 2019 Indonesian Presidency's Election. However, online media's ethical issue also emerge onto the surface. Particularly, the issues of online journalism ethics. This research explore the ethical issue in political news in national online media during the 2019 Presidential Election. Qualitative method is employed to analyze news in national online media by 2018-2019. A sort of national online media are chosen based on their rank in accordance to Weber Shandwick and alexa.com; namely, kompas.com, sindonews.com and tempo.co. This

research has revealed that those online outlets have several ethical issues of political news: (1) The news source, some of websites have mentioned no news source or any credible reference. (2)The news content, had bias distinction between fact and opinion. (3)The news accuracy, such the problem of proportionality and objectivity. And (4) Affiliation, in related to its inclination to a particular presidential candidate.

The Complexity of Sexual Abuse Problems of Children in West Nusa Tenggara: Culture against Law

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Keywords: Sexual abuse, Incest, “Merariq”, victims and perpetrators

The issue of sexual abuse today is quite alarming. Many cases occur, including in West Nusa Tenggara. A social rehabilitation center that provides services to Children Associated with Law (ABH) in Lombok, is quite overwhelmed with client problems, especially those related to sexual abuse issues among minors. The cases handled are quite complex and varied, such as the high incidence of incest and usually perpetrators of sexual abuse are the people closest to the victims. The "Merariq" culture is the habit of "escaping" the bride to marry has contributed to the problem. This research is to find out: 1). The picture of sexual abused cases in West Nusa Tenggara; 2). The causes of the high incidence of sexual abuse 3). How to settle incest or "Merarik" cases by the local community, and 4). Who has the role to resolve incest or "Merariq" cases. This research used descriptive qualitative method, with

interviews, documentation studies and focus group discussions. The results: It turned out that incest cases (perpetrators were biological fathers) dominated the problems encountered. Beside, cases of early marriage occur because of using the "Merariq" to ended in early marriage. The conclusion is that culture also influences the high incidence of sexual abuse in West Nusa Tenggara. . This view must be changed. The perspective of combating adult centrism must be developed, namely the pragmatic perspective on social work, presented by Petr, C.G. (2004), who opposed ism centered on adults in looking at children.

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Political Identity of Ganjar Pranowo and Taj Yasin Maimun Candidate Pair in the 2018 Central Java Election Contest

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Keywords: Politics, identity, local election, Central Java, political contestation

Political developments in the history range write that the contestation of political battles always involves public participation as a determinant of victory. Public participation in political spaces after the reformation shows an increase as evidenced by the growth of new political parties. The increasing growth of political parties is certainly linear with the involvement of the public. The level of public participation is ideally balanced with good political education by stakeholders. This needs to be discussed and become a systematic and measurable program by the government and political parties to provide political education. Thus, the community is not only involved as a voter but also understands the consequences of their political attitude. Identity politics was implemented by the Central Java gubernatorial pair Ganjar Pranowo and Taj Yasin Maimun. Consideration of segmentation and positioning in the political marketing of 2018 Central Java regional election of incumbents are inseparable from the

characteristics of community groups. Consequently, raising a question how the Social Political Phenomenon of Identity of Candidate Pairs Ganjar Pranowo and Taj Yasin Maimun in the Local Political Stage of the Central Java Election 2018?. This study uses qualitative research methods through the phenomenological approach of Berger and Luckmann. The theory and social construction approach to reality occur simultaneously through three social processes, namely (1) externalization (self-adjustment) with the sociocultural world as human products, (2) objectivation, that is social interactions occur in the intersubjective world which are institutionalized or in the process of institutionalization and (3) internalization, that is the process by which individuals identify themselves with social institutions or social organizations where the individuals are members.

Disaster Mitigation Information in Football Matches: Fans Perspective

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Keywords: Disaster mitigation, Football, Audience security

The study focuses on problems of disaster mitigation information in football matches and the implications to audiences' safety. The study uses study case method. The data collection is performed using in-depth interview, observation, and literature review; and the informant selection applies purposive sampling or criterion-based selection. Informants picked are fans of PSIM Yogyakarta, Persiba Bantul, and Persebaya Surabaya who experienced disasters in the stadiums. The study demonstrates, based on fans experiences, that various factors are responsible for outbreaks in football matches, namely the absence of information on disaster mitigation,

the unprofessionalism of the organizers and securities in managing possible disasters, the insufficiency of the stadium architecture to deal with disasters, and the inadequacy of medical facilities in emergencies. The way forwards which are proposed is that, firstly, stadium construction should be designed by heeding disaster mitigation consideration for the sake of individuals' well-being in the stadium. Moreover, the organizers, including the securities, should be more professional in running the matches. Finally, appropriate facilities for preventing disasters should be provided.

The Modalities and Roles of Local Governments to Face the Terrorism Issues in Indonesia: Case Study of Malang Raya Region

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Keywords: Government, Malang, Modality, Terrorism, roles

This paper examines the roles of local governments to face the threat of terrorism in Indonesia, with the case study in the Greater Malang region, consists of Malang City, Malang Regency, and Batu City. The selection of these three regional governments was interesting because some of the suspected terrorists were arrested and arranged their actions to some other places in Indonesia from the region of Malang during the last two decades. This study used a qualitative descriptive method, where the primary data collected by doing interviews with representatives from Malang City Government, Malang Regency, and Batu City. Also, primary data was also collected from official local

government documents which are related to terrorism threats in the region of Malang. By using the concept of securitisation, this study found that the governments of Malang have some modalities to face the issues of terrorism, both internal and external modalities. In optimising those modalities, they also have played some preventive, proactive, curative, and rehabilitative roles. However, there were some obstacles found which encouraged the government to collaborate with other stakeholders, such as civil societies from pesantren, to face the issues of terrorism in the region.

Collaboration Development of Electronic Government Innovations in Pontianak City

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Keywords: E-Government, Collaboration, Innovation

Pontianak city in Indonesia whose government cares about innovation in field of electronic government. Pontianak is one of the regions that get appreciation from the institute public administration of Republic Indonesia on various creation innovation program policy in public administration sector. To develop electronic government, Pontianak city government collaborated with various parties, so that development could be carried out optimally. From the results of development electronic government, Pontianak city government received appreciation from President of Republic of Indonesia, making this electronic government development process a model for regions and other regional governments in

Indonesia. From this phenomenon it's interesting to find out how the Pontianak city government collaborated to develop electronic government. To explore this phenomenon, researchers conduct research in a descriptive manner in order to be able directly explore information. From the results of research we will find various kinds of important information that will be useful for many parties as material to develop other innovations to support process bureaucratic reform in Indonesia.

Difference of Academic Procrastination on Male and Female Students

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Keywords: academic procrastination, gender, student

The present study is aimed at finding out the academic procrastination on male and female students. This is classified as quantitative study with descriptive approach. The study was conducted in Ahmad Dahlan University with 229 students who were selected through simple random sampling. They consisted of seventy-nine male students and 150 female students. The instrument employed in the study was academic procrastination scale. Independent sample t-test was employed for analysis. The result of the study found that there is no difference in academic procrastination between male and female students. It was proven by the value of Asymp. Sig.(2tailed) 0,318 ($p > 0,05$). This finding is not in agreement with Friend (in Timpe, 1999) who states that

men possess a higher tendency of procrastination compared to women (Basri, 2017). The result of the study provides positive contribution to the educational field, particularly higher education institution. This study provides a picture and reference for a higher education institution and all of its associated parties such as academic advisors, university counselors, and lecturers to take proper action and service for both female or male students who undergo academic procrastination.

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Comparison of Women Legislative Candidates Selection Between Nasdem Party in 2013 and Unidos Podemos Party in 2016

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Keywords: The selection of women legislative members, Unidos Podemos party, Nasdem party.

The selection of women legislative member candidates is the core of discussion about women and politics. Because, the selection of candidates is the initial phase for women to be able to actively participate in the political world and sit in a party or even a parliament as well. Thus, this research will analyze and compare the selection of women candidates between Spanish-political party, Unidos Podemos, and Indonesian-political party, Nasdem. The research will use Rueven Hazan and Gideon Rahat theories which discuss the selection of candidates at 4 aspects as follow, Candidacy,

Selectorate, Voting/Appointment System, and Method. By using these aspects, this research is expected to be able to classify women's characteristics of candidate recruitment and selection, and women's barriers in joining the political party and parliament. So that this research will give the right strategy for women to sit in the parliament.

Effectiveness of One Roof Service Policy in Protection of Migrant Workers' Rights

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Keywords: policy effectiveness, one-stop service, protection of migrant workers rights

The digital age does not reduce the interest of prospective female migrant workers from Indonesia to go to other countries. However, in reality, many problems arise both from departure, during work, and after returning home. This problem prompted the Government through the Law on Placement and Protection of Overseas Workers number 18 of 2017 to make a policy on the service of protecting migrant workers' rights in an integrated manner. However, as a new policy, problems regarding policy implementation tend to occur, so it needs to study their effectiveness. This study uses descriptive research with a qualitative approach. The subject is policy makers in Tulungagung Regency related to one-stop service policies for migrant workers. Data were extracted using interviews, FGD,

observations, and documentation, then analyzed by interpretive models.

The research findings that the policy of protecting the rights of one-stop migrant workers in Tulungagung is very effective. There are efforts to unite services aimed at preparing and equipping migrant workers from administrative aspects, travel documents, skills, and cultural. This one-stop service is effective because it is following standard operating procedures in Law No. 18 of 2017, as well as excellent service standards according to MENPAN's decision Number 63 of 2003.

Contradiction of Disruption Era: Does Disruptive Affect Public Policy or Political Interests? Syarifah

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Keywords: Disruptive Era, Public Policy, Terrorism Act, Music Bills.

The development of the current era of disruption has resulted in changes in global and exponential patterns, where speed is higher and the direction is difficult to predict, not only affecting economic actors, but also influencing government decision makers and performance. With a linear pattern, the decision maker seems slow and fails to anticipate. In this paper, the cases discussed are the cases of Terrorism Act and the billon musical. The paper aims is to find out whether the disruptive era influences government policy and or political interests. In the case of the release of Abu Bakar Baasyir which was based on humanity seemed

unstable to implemented. And in the case of the Bill of Music, it also seemed that the discussion was not deliberated around the actors. The approach used is descriptive qualitative with library research as data collection methods. The results of this study is the systematizes of the government in the making public policy in disruption era which more affecting political interests. This research also provides input for the government in taking political policies in the future to be anticipated.

CSR for Child Poverty: Challenging Policy in Disruptive Era

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Keywords: Poverty Alleviation; Local Government; Disruptive Era; pro poor policy.

National Socio-Economic Survey 2017 notes that in the city where the research is conducted, there are 31,7 % of poor people with low education, labor status and unemployment. Children in this family automatically are on child poverty condition. The problems are How city government and CSR forum do construct the child poverty problem thereby impacting the choice of CSR utilization policy, particularly in disruptive era threatening labor's job?, How far is local poverty alleviating policy responsive to children?, and how far is the utilization of New media as the communication strategy of poverty policy?

This article aimed to elaborate design utilizing of Corporate Social Responsibility (CSR) for poor children development in dealing with disruptive effect of information technology. Research was conducted using

qualitative method and data collection with policy document study and interview. Interpretative analysis was carried out using collaborative governance theory. This novelty was that using child poverty with CSR collaboration as the sustainable pro-poor policy strategy. The study found that local government's policy had not put child poverty onto the priority of CSR utilization yet. Policy communication had not optimized new media as advocacy medium. The research's contribution was the development of child-oriented local poverty overcoming policy. Further researches are recommended to study poor family's perspective on the alleviation of child poverty.

Islamic Organization Movement Strategy in the Winning of Muslim Governor Partners in The 2017 Governor Election (Case Study Islamic Defenders Front)

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Keywords: Islamic Defenders Front, Jakarta Governor Election 2017 Islamic Social Movements

This study discusses the political strategy carried out by the Islamic Defenders Front organizations in winning pair in the Muslim governor of Jakarta Gubernatorial Election 2017. Some political strategy carried out in each phase started on the process of political candidate to mass mobilization, in conducting the political agenda of the Islamic Defenders Front Organizations using identity issue religious to influence political choices Muslim community in Jakarta, the FPI also use the network of religious communities and mosques in the form of lectures and other religious

activities to campaign for Governor of Muslim couples. This study uses the concept of the theory of convergence between the theory of identity orientation and mobilization of resources to analyze how religious instruments owned by the Islamic Defenders Front organizations can assist them in the process of leadership succession in Indonesia's capital city governor.

The Role of Civil Society Organizations in the Formation of Undang-Undang Number 7 of 2017

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Keywords: youtube, mass-self communication, commodification

Komunikasi merupakan berbagi makna melalui pertukaran informasi di mana prosesnya ditentukan oleh teknologi komunikasi yang digunakan, karakteristik dari pengirim dan penerima, budaya yang ada dibelakang dan bagaimana komunikasi itu dilakukan. Pada proses tersebut harus dibedakan jenis komunikasi yang dilakukan. Namun dengan perkembangan internet, bentuk baru komunikasi interaktif muncul, Castell menyebut ini sebagai bentuk komunikasi massa yang baru, atau disebutnya sebagai mass-self communication. Ini adalah komunikasi massal karena berpotensi menjangkau khalayak global, pada saat yang sama, itu adalah komunikasi intrapersonal karena produksi pesan itu dibuat sendiri, definisi dari penerima adalah self-directed. Pada perjalanannya mass-self communication bermanfaat bagi keterbukaan publik seperti yang dilakukan oleh beberapa kepala daerah di Indonesia, Ridwan Kamil dan Ganjar Pranowo. Strategi mass-self communication yang dilakukan kedua kepala daerah ini pada dasarnya hampir memiliki kesamaan. Penempatan konten berdasarkan kesesuaian platformnya sehingga berhasil mendorong partisipasi masyarakat. Partisipasi masyarakat pada akhirnya dapat menyelesaikan program pemerintah karena ketepatan dalam penggunaan media

sosial yang efektif dan efisien. Platform YouTube berkembang menjadi semacam industri tersendiri, dengan pengguna yang dapat menjadikan YouTube sebagai lahan untuk peluang mendapatkan income atau bahkan sebagai profesinya. Mereka kini yang mengandalkan penghasilan dari YouTube akrab disebut dengan YouTuber. YouTuber, baik individu, kelompok, komunitas, hingga perusahaan besar, memproduksi video- video uniknya sendiri, khusus untuk ditampilkan di YouTube. Materi yang didapat oleh seorang YouTuber, sebenarnya tidak mudah didapatkan. Syaratnya, channel harus telah mencapai 1000 subscriber dan 4000 jam waktu tonton dalam periode 12 bulan terakhir. Mereka tidak hanya memproduksi tetapi juga mendistribusikan kepada khalayak yang lebih banyak. Terjadi komodifikasi khalayak dan pekerja di mana produsen dan konsumen garisnya kabur dan kemudian disebut prosumer. Platform ini menghasilkan keuntungan yang besar bagi pemilik, tentunya lebih besar keuntungan yang didapat pemilik daripada penggunaanya.

Expectations and Anxieties Relating to Short-Term Edutourism Exchange Program: Case Study of Indonesian-German Students Exchange

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Keywords: student exchange, edutourism, study abroad, expectations, anxiety

Short-term exchange programs present great opportunities for students to gain international experience, while experiencing other countries and cultures. These programs are often coupled with excursion and touristic experience, which belongs to the realm of educational tourism or 'edu-tourism'. This paper aims to discuss the expectations and anxieties experienced by the related stakeholders to short-term exchange programs prior to departure, namely the students themselves, the school teachers and administrators, as well as the parents. It focuses on a two-week exchange program in which a group of eight Indonesians students from Bali will take part in an edutourism experience in Germany. Using both quantitative and qualitative data collection methods, this study seeks to identify the involved Indonesian parties' expectations and anxieties towards the exchange and how

international experience has an influence on their perception. The study found that the expectations of students, parents and teachers can be clustered into personal development, learning about the language and culture as well as the enjoyment of the trip. As for anxieties, major concerns were the ability to cope with the language and culture, problems in everyday life as well as personal health. In between the groups, differences regarding the importance of some expectations and anxieties were observed. Additionally, the groups' international experience played an important role relating to their perception and had an influence on their expectations and anxieties.

Reference to Islamic Study Materials of UNJ Students

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Keywords: LDK; Islamic Reference Material; mentoring

Increasing students' Islamic insights not only formally through SKS lectures. Increasing Islamic insight is also carried out through non-formal activities, such as taking part in Islamic mentoring or studies organized by the campus dawah institution (LDK). Religious R & D the Ministry of Religion has conducted a study of books read by students active in LDK. The purpose of this article is to analyze the Islamic Material Reference which is used as a reference by LDK in improving the student's spiritual insight. The research approach is made qualitatively, with the data collection technique is documentation, observation, and interviews. The results of the study are in line with the results of

research conducted in 2017, by the Ministry of Religion's research and development institute which revealed that reading books read by LDK were more enriching in nature and increased Islamic insights and religious reading related to group tendencies. (Saefullah, 2017)

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Synergy Communication Model of Decision-Making Mount Sinabung Eruption Contingency Plan

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Keywords: disaster communication model, contingency plan policy, Sinabung

The research aims to find a synergy communication model in the formulation of the Bupati's regulatory policy on the Mount Sinabung eruption contingency plan. This study conducted by qualitative descriptive methods, data collection techniques through interviews, observations, and documentation related to the rule of the Karo Villagers on the Mount Sinabung eruption contingency plan. Research results in the form of a communication process model in the proposal, decision-making process, and policy on the contingency plan eruption of Mt. Sinabung Regency of North Sumatera. The contribution of this research is a new model in the policy formulation of the Mount Sinabung eruption contingency plan. Regional disaster management Agency should immediately conduct the communication and coordination process in order to make the decision to prioritize the document contingency plan as regional

regulation Karo regency. Coordination for good disaster risk reduction includes; (1) Management of functional disaster prevention problems; (2) The existence of a clear purpose, role and responsibility of the Organization; (3) Resources and timing that will make the coordination run; (4) The course of coordination based on the exchange of information from various sources of different information (Lestari, Prabowo, & Wibawa, 2012). It based on the importance of the document to be a reference if there is a disaster eruption Mount Sinabung.

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The Interplay of Incumbency, Political Dynasty, and Corruption in Indonesia

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Keywords: Incumbency, political dynasty, corruption, local head election, government

There are three interesting issues in the direct local head election in Indonesia: the increasing of incumbent power, political dynasty phenomena, and corruption at the local level. This research analyzes how interplay of incumbent, political dynasty and corruption in Indonesia from the perspective of good governance. Based on the qualitative data analysis, this research shows that direct local head election provides greater opportunities for incumbents to build their political dynasties to perpetuate their power. Nevertheless, corruption in the local level performed by both dynastic and non-dynastic local head. So, minimizing corruption is not achieved by the restriction

of political dynasties, but strengthening control to the government. There are five points of supervision to strengthen control to the government, namely supervision in the political recruitment in election process, bureaucratic neutrality, transparency and accountability in budgeting, and supervision of local policies to avoid pork barrel policy (Purwaningsih, 2016).

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Measuring Media Agenda: News Content Analysis of Sultanate Succession

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Keywords: media agenda, agenda setting, content analysis, newspaper

Yogyakarta is a province with special status in Indonesia. Province leaders does not selected by election. According to The Mandate of Law Number 13 of 2012 concerning the Privileges of Yogyakarta, Governor and Deputy Governor Sultan Hamengku Buwono must be filled by Sri Sultan Hamengku Buwono and Adipati Paku Alam. Sultanate succession received attention from media after Sabdatama (King's order). It pointed Sultan's eldest daughter as Crown Princess even in patriarchal society. Then polemic raised in media. Latest news emerging the issue of leadership succession in Yogyakarta intensively in March to May 2015. Through news content analysis this research is measuring the media agenda related to the issue of the Sultanate succession on three selected newspapers (KOMPAS, Republika, and Kedaulatan Rakyat) by purposive

sampling. There were 62 news from period March to May 2015 measured by quantitative news content analysis method. Research Result indicated that all media agenda concern with Sabdatama (King's Order) issue since it sentenced by Sultan twice. There were distinction between Local Newspaper Kedaulatan Rakyat and National Newspaper (KOMPAS and Republika). Local newspaper put monarchy issue in second rank while national newspaper set constitutional issue like the polemic prerequisite of Yogyakarta Governor and Deputy Governor in second place.

Marketing Communication Strategy of Halal Tourism in Bandung

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Keywords: halal tourism, communication, marketing, sharia.

The sharia-based economic sector has been growing very rapidly lately, not only in the financial, culinary and fashion sectors but also in the tourism sector where the growth of Middle Eastern tourists is very rapid with a total of approximately 170,000 foreign tourists in 2018 and this figure is projected to increase to 250,000 foreign tourists in 2019. Thus, it is important to be discussed due to the huge market potential to improve the Indonesian economy, especially in the tourism sector, and in order to avoid the potential market not have the best service. This prompted researchers think that halal

tourism is important to be discussed specifically, especially in the field of Marketing Communication, besides its great potential, halal tourism itself requires strong branding so that the process of delivering information and tourists' desires of visiting will be even greater. This research will focus on the Halal Tourism Marketing Communication Strategy in Bandung.

Mainstreaming Religious Values in Curriculum Development for Multicultural Society

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Keywords: Curriculum development, Religious studies, Religious values, Multicultural society.

Curriculum development is a continuing process in improving and adjusting the quality and goals of studying and teaching. One challenging process is, however, to prepare a transformed curriculum for different students. This study aims at illustrating curriculum development process of general religious study subject for university students. The curriculum has been adjusted to be delivered for specific Muslim students into multi-religious-background students. Therefore, this process involves mainstreaming of values of religions instead of description of formal rituals. This is a qualitative study that utilizes library research, participant observation, as well as interviews as main source of data collections. The observation has been focused in Universitas Indonesia and Tanri Abeng University. The two universities share unique

characteristics in terms of religious studies and therefore important and functional for kind of comparison. Data was collected during May to July 2018. This study discovers that mainstreaming of religious values has been accepted by students with multicultural backgrounds in religion. This mainstreaming of religious values has made the connection between the students closer and stronger. This unique approach has enabled the students with different backgrounds of religion to find a common ground among them without harming their own belief.

REFERENCES

Indonesia's Foreign Policy toward Malaysia in the Post Soeharto Era: A Case Study of Ambalat Dispute

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Keywords: Ambalat Block, Indonesian foreign policy, dispute

Since 1960s, Indonesia and Malaysia have frequently argued about the Ambalat Block. The peak of the feud took place in 2002 when the International Court of Justice decided that Malaysia won the ownership dispute of Sipadan and Ligitan Islands in the Ambalat Block. It is common that border disputes occur between two neighboring countries, especially the disputed area of the sea that is not occupied for human residence, whose physical boundaries are visually difficult to recognize. It becomes uncommon when the dispute then involves the mobilization of soldiers, warships, and fighter jets on both sides and often inflicts endless public

anger, whereas Indonesia and Malaysia are both member countries of ASEAN. The article is set in order to reveal: why has the dispute not been solved for more than half a century? What have been done by both parties so that the Ambalat Block problem is still far from a peace agreement? What sort of obstacles are faced by both parties so that the negotiation process takes so long?

REFERENCES

Spiritual Concept of Islamic Tourism

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Keywords: Concept, Tourism, Spiritual

Transcendental communication is seen by many people in tourism objects in the environment around us, such as ceremonies of pregnancy, birth, circumcision, engagement, marriage, thanksgiving and death. Through this research researchers want to explore spiritual values in tourism.

Spiritual value itself can be approached through transcendental communication, which is to make people aware of religious needs and recognize religion as a problem solver for all forms of human activities including tourism. Transcendental communication is a form of intrapersonal communication that occurs within oneself with something outside the self whose existence is realized by the individual. Or in other words, transcendental communication is communication that takes place between the individual and something that is magical.

Researchers want to invite readers to contemplate

tourism activities, the spiritual value of tourism in Islam is an approach taken by humans to Allah SWT in carrying out tourism activities. The effort taken is to distance the haram and carry out the mate, both in food and tourism activities. The concept of spiritual tourism presented is by always combining 4 (four) elements in carrying out activities, these four elements are tourism actors, Allah's existence or power SWT in each of its activities, the wisdom of the service provider's Human Resources, and the harmony of the natural conditions of the environment and leads to the vibration of the soul of the presence of the Creator at every step.

The Architecture of Facework in Intercultural Virtual Work Team

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Keywords: Facework; face negotiation; face strategy; virtual collaboration; mindfulness

The most crucial aspect of a collaborative process, face to face or online, is the face of participants, which is the focus of this research. Face is a direct indicator of the importance for individuals to maintain face (self-esteem) for themselves and for their culture group, which is evident in the communication behavior of individuals during the interaction. Individual, having a background of individualistic or collectivistic culture negotiate face when conflict and uncertainty occur. This research uses a qualitative interpretive approach of ethnomethodology. The subjects observed in this study is a virtual team of three universities: (one from Indonesia and two from the USA), which meets regularly via Skype video-conferencing. Conversation analysis is used to analyze how participants construct their conversation in

collaborating to make decisions. The result of this study is the construction or mapping of the individual facework strategies from individualistic and collectivistic cultures. The pattern shows face strategy that integrates facework style of individualistic and collectivistic cultures. Individual's mindfulness affects facework strategies undertaken in the process of collaboration. The implication of this research is a model constructing face strategy mapping of individuals, which explains how individuals negotiate their face in virtual collaboration inter-culturally and are very relevant in the advancement of Face-Negotiation Theory.

The Effects of Agricultural Land Conversion on Food Availability (A Case Study in Bangunjiwo Village, Kasihan Sub-District, Bantul District)

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Keywords: Agriculture, Food Availability, Land Conversion.

This research aims to find out: 1) the rate of land conversion; 2) the condition of food resilience based on the availability aspect; 3) the analysis on agricultural land conversion on food availability. This research was conducted in Bangunjiwo village, Kasihan Sub-district, Bantul district. The data was a secondary data since 2007 to 2016 collected from Bantul Regency Statistics Center, Agricultural Extension Center, and Bantul Regency Population and Civil Registration Service. The results are as follows: 1) the rate of land conversion in Bangunjiwo is 20.3% or it can be said that agricultural conversion decreases around 69.72 hectares. 2) The condition of food resilience based on the daily food

availability per capita in Bangunjiwo is still in the category of “food insecurity”. The trend of food security condition on the availability aspect since 2007 to 2016 also decreases from “quite insecure” in 2007 to “insecure” in 2016. 3) The agricultural conversion significantly affects food availability in Bangunjiwo village.

The Implementation of Surabaya Mayor Regulation No. 65 of 2011 on the East Coast of Surabaya

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Keywords: Implementation, Regulation, Mangrove

The purpose of this research is to know and analyze policy of monitoring and controlling procedure of mangrove area in Surabaya city area, especially Pamurbaya region and factors supporting and obstructing policy of monitoring and controlling procedure of mangrove area in Surabaya city area, especially in Pamurbaya region. Monitoring policy and control of mangrove area is a policy made to protect and conserve mangrove area. Monitoring and controlling policy of mangrove area in Surabaya is contained in Mayor of Surabaya Regulation No. 65 of 2011. The

purpose of this policy is to maintain and preserve mangrove well in all mangrove areas in Surabaya. This research uses qualitative descriptive approach with data retrieval technique by observation, in-depth interview, and documentation. The results of this study in perspective Merilee S. Grindle that the implementation of Mayor of Surabaya Regulation No. 65 of 2011 on procedures for supervision and control of mangrove areas in the city of Surabaya is good.

Analysis of the Feasibility and Risk of Sweet Potato Farming in Coastal Land In Gadingsari Village, Sanden, Bantul

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Keywords: Coastal land, Feasibility, Risk, Sweet potato

Sweet potato is one of the food crops cultivated by farmers. The problem with farmers is crop failure caused by pests, diseases and drought. This study aims to analyze the costs, revenues, net revenue, profits, and risk levels of sweet potato farming in the coastal land field of Gadingsari Village, Sanden subdistrict, Bantul. This study uses primary data from 80 farmers taken by census. Data was obtained from interviews with the help of questionnaires. Data was analyzed using income,

feasibility and coefficient of variation. The results showed that sweet potato farming in Gadingsari Village was profitable with net revenue of Rp 2,247,361. Sweet potato farming in Gadingsari Village is feasible to run based on R / C, economic work and working capital. Farmers face a low production risk of 0.1 but on the other hand Farmers face high income risk of 0.42

Indonesian Language Impoliteness Formulae on Twitter

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Keywords: Language Impoliteness, Indonesian Language, Social Media of Twitter

The presence of technology changes the way humans communicate from the real world to cyberspace. Based on *Hootsuite Wearesocial* research released in January 2019 shows that social media users in Indonesia reach 150 million or 56% of the total population. There has been an increase of 20 million social media users in Indonesia compared to last year. The development of this digitalization indicates that the use of social media as a new media is increasingly massive, including Twitter. The extensive use of new media is changing the news production platform. In this era, the news is not only from mass media, but everyone can produce report, shape public opinion, and create a virtual society. This condition has a destructive power because it can spread quickly and can provide powerful emotions. This paper discusses the characteristics of Indonesian language

impoliteness on Twitter by using qualitative research methods. The data were collected from Twitter status in 2018. The analysis shows that impoliteness in speech and language occur because of the ideology and power which are owned by each speaker. The use of impoliteness is mostly about ethnicity, religion, race, and groups (SARA). Ethnic impoliteness on twitter media was found to be 20%, religious impoliteness was found as much as 25,1%, race impoliteness was found as much as 18.3%, and group impoliteness was found as much as 36,6%.

REFERENCES

Organizational Development and Transformational Change: Organizational Innovation in Muhammadiyah Owned Enterprises

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Keywords: Organizational development, Transformational change, Organizational Innovation, Service business, Muhammadiyah-Owned Enterprises

Knowledge and study of the effect of team work on organizational innovation is still developing and becoming a current issue. This paper aims to explain how Muhammadiyah is a movement of Islamic organizations in today's turbulent business environment, with the work team's efforts having undergone organizational development and transformation as a continuous and progressive organizational innovation. The existence of the organization from the beginning stood up to responding to the challenges of the current

era, was explained by the implementation of its business unit to become a Muhammadiyah-Owned Enterprises (MOE). This research used a qualitative approach by investigating 6 Muhammadiyah-Owned Enterprises. The companies studied are presented and discussed with changes experienced by each organization.

REFERENCES

Factors Affecting the Optimization of Sustainable Food House Programs in Accelerating Food Consumption Diversification in Bantul

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Keywords: KRPL, KWT, optimization of KRPL program

Sustainable Food House (*Kawasan Rumah Pangan Lestari* (KRPL)) is one of the programs to accelerate food consumption diversification (*Percepatan Penganekaragaman Konsumsi Pangan* (P2KP)) to fulfill food needs in Indonesia. This study aims to describe the implementation, analyze optimization, and determine the factors that influence the optimization of KRPL program in *KWT Migunani*. The data were collected through interviews, observation, and documentation. The determination of respondents was done through census to 27 members of the Farmer Women Group (*Kelompok Wanita Tani/KWT Migunani*). The analysis was done using descriptive analytics to know the factors that influence the optimization. The results showed that the implementation of the program is quite accomplished, observed from KWT members activeness in group activities, farming training, and counseling which are quite high. The optimization of the program is also classified as quite accomplished, seen from the

indicators of many commodity types and technology, more uses of the yard, and more additional food supplies for the family. The internal factors that affect the optimization are formal education, family income, cosmopolitan rate, and motivation; while the external factors are the intensity of extension, availability of production facilities, and member involvement in KWT. The results of this study are in line with the findings of Zulvera (2014) that the motivation of farmers can increase the adoption of organic vegetable farming system. Thus, the high motivation of female group members can increase sustainable land use activities.

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Comparison of Development of Cluster and Non Cluster Model of Corn Farming

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Keywords: Cluster, Corn, Feasibility, Wirosari, Grobogan.

Corn is the main commodity of Grobogan Regency. Considering the potential of corn, Bank Indonesia in cooperation with the Government of Grobogan Regency creates the development program of corn cluster. The selected area as the object is Gapoktan Sido Murni in Tambakselo Village. However, there is an area with the same potential that does not have a cluster development program, that is Gapoktan Sido Manunggal in Dokoro Village, Therefore this research aims to know and compare the income, profit and feasibility of corn farming both. The number of respondents of 20 farmers in each village, determination by non random sampling technique. The data obtained were analyzed descriptively. Corn farming was analyzed by cost analysis, income, profit, R / C, land productivity, labor productivity, and capital productivity. The results showed that the farmers of Gapoktan Sido Murni earned

an average income of Rp11.724.722 and profit of Rp7.917.851. Meanwhile, farmers in Gapoktan Sido Manunggal earned an average income of Rp9.740.915 and profit Rp5.991.161. The ratio of (R-C) in Gapoktan Sido Murni was 1,9 while Gapoktan Sido Manunggal had 1,6 of R/C, land productivity in Gapoktan Sido Murni was Rp9.928.684/Ha/season and Gapoktan Sido Manunggal was Rp7.991.161/Ha/season, and capital productivity in Gapoktan Sido Murni 148% and Dokoro 104%. Based on the four feasibility analysis used, Gapoktan Sido Murni had higher feasibility value compared to that of Gapoktan Sido Manunggal, thus program of corn cluster is worth developing.

Feasibility Study of Hybrid Corn and Sweet Corn Farming

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Keywords: Hybrid corn, Sweet corn, Feasibility farming

This study aims to determine the cost, revenue, income, profitability, and feasibility of sweet corn and hybrid corn farming in the Plemahan district. The technique of determining the research area is done by purposive sampling with the consideration that the Plemahan district has the highest corn production. Determination of respondent samples was done by the census of 20 sweet corn farmers and 30 hybrid corn farmers. The method of analysis is carried out by describing the results of tabulations including income, R/C, capital productivity, land productivity, and labor productivity. The results showed that total farming costs were

Rp8,438,496 for sweet corn and Rp9,473,266, - for hybrid corn with a land area of 4000 m. Income of sweet corn farmer is Rp7,915,054 during planting season (3 months). Then, income of hybrid corn is Rp7,611.5 during one planting season (4 months). The profit obtained from sweet corn is Rp4,473,588 while the profits of hybrid corn farmers amounted to Rp3,639,734. The feasibility of sweet corn is higher than hybrid corn.

Idayda: The Contemporary Music among Meranaw Youth in The Philippines

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Keywords: Music, Youth, Meranaw, Culture. Islam

The influence of music in the Philippines especially in Lanao del Sur is evident; its tolerance to the Meranaw youth has been manifested through Music production. The growth of Artists is perceived to be a threat to the practice of Islam. This study is conducted which entitled, Idayda: The Contemporary Music among the Meranaw Youth in the Philippines. The Ulama have contradicting viewpoints concerning its toleration or prohibition and it has been controversial. The objectives of the study are to determine the roles of contemporary Music to the Meranaw Youth and to analyze the trend of interpretations of the Ulama to Music. Qualitative Descriptive and key-informant methods are used to have depth interview with the two categories of respondents,

the selected Bands of Artists and the Ulama. Hence, the identified roles are, Music as Cultural system, Experience and Technology of Self. The types of music these youth are into were conferring to Meranaw values. Nevertheless, qualifications are considered with regards to its permissibility, which also correspond to the growth of Music. On the perspectives of the Ulama, it is interpreted to be prohibited as it may decrease the Iman of Muslim Meranaw.

The Emergence of Maute Group in Marawi City

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Keywords: Maute Group, Marawi Siege, Terrorism, Religion, Causes and Effect

Terrorism is a reality that always isolates peace in a place. Whether or not it is brought by the armed group or provoked by the tyranny of the government. The former depict the case of Marawi in 2017 when Maute Group, inspired from a prominent single-family in Lanao del Sur, spread terror in the entire city. Hence, this study aims to determine the possible underlying factors that led to its emergence and to identify its effect to its people.

The researcher adopted a cross-sectional survey research design to the 100 respondents in MSU Main Campus and made use of the qualitative descriptive methods in the analysis of data. Further, this study used multi-dimensional theories of terrorism such as operant conditioning by Burrhus Fredric Skinner, self-determination by Deci and Ryan and Anarchism theories by Pierre-Joseph Produhn.

Results of the study show the rise of Maute group was instigated by interrelated factors such as religion, leadership crisis, family feud, power struggle as well as economic factor. To realize all of these, they resorted into defiance and eventually engaged war with the AFP (Armed force of the Philippines). The war has far-reaching effects in politics, livelihood, peace and order, wellbeing, and education.



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[ABS-1026]

Visualization and Travel Time Extraction System for the Statistics of TDCS Travel Using Mapreduce Framework

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Keywords: Big Data; Map Reduce; Interactive Visualization; Travel Time

Recently, extracting some information as a knowledge from big data is very challenging activity. The size of data is very huge and it requires some special techniques and adequate processing hardware. It is also apply in vehicles transportation data at Taiwan National Freeway from the Traffic Data Collection System (TDCS). The results of this extraction will be very useful if it can be used by the community. So that the delivery of information extracted from large data that is easily understood becomes a necessary thing. Presentation of

results using images / visuals will make it easier for people to interpret the information provided. In this project, an interactive visualization of the results of extracting statistical information is attempted to be provided. The results can be used by users to support the decision making of road users in determining the appropriate time when going through the road pieces around the Taichung City. This visualization of the statistics will help people who want to predict the travel time around Taichung City.

[ABS-1284]

Image Quality and Radiation Dose in Abdomen CT Scan with Difference Intravascular Contrast Media

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Keywords: Abdomen CT Scan; Scan Delay; Windowing; Radiation Dose

Abdominal tumors due to malignancy in the liver often occurred in Abdomen CT Scan patients. To obtain a good and accurate image quality can be done by setting the scan delay and windowing. The purpose of this study is to determine the values that fulfilled the radiation protection aspects. This research is quantitative research with the experimental approach the research is done in Telogorejo Hospital in Semarang by using 40 samples with 5 scan delay times (60; 65; 70; 75; 80 seconds). The results calculated by ROI on the object and analyzed by Friedman tests. The results showed a difference in image

quality (p -value = 0.02). The results of dose calculations showed an increase in dose for each additional scan delay time. This is consistent with the results of statistical tests ($y = 1,181x + 20,025$ with $R^2 = 0.8506$), which means that the dose increase is caused by scan time delay. Suggest for getting the optimal image quality with 70 seconds scan delay and the maximum scan delay with 75 seconds is still accepted for patients. The radiation dose is 24,54 mGy with maximum scan delay, which under the regulation of Bapeten and safe for the patients.

[ABS-1029]

Evaluation of Internal Quality Control to Critical Test Result in Laboratory RS PKU Muhammadiyah Yogyakarta

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Keywords: Internal Quality Control; Westgard Rules; Critical Value Laboratory

Laboratory has an important role for making decisions in health services. The results of laboratory tests must be quality guaranteed because any error in the laboratory process can make negative impact on decision making for patients. Critical value reporting parameters also considered an important laboratory outcome measurement because they reflect clinical effectiveness, patient safety, and operational efficiency. This is descriptive qualitative study to evaluated the Internal Quality Control (Internal QC) and it related with the critical test result issued in PKU Muhammadiyah Yogyakarta Hospital on hemoglobin, urea and creatinine examination. We are using data of daily internal QC hemoglobin, ureum, and creatinin and it is asses by Westgard rule chart, data of critical value test result, and

interviews with laboratory staff and supervisor. The result shows daily internal QC hemoglobin, urea, and creatinine in January-December 2017 always performed with good result. The critical test result issued by the laboratory is valid.. The implementation of critical value reporting is always performed but there is no data of reporting documentation because in operational standart procedure still not obligated that point. Internal QC in laboratory RS PKU Muhammadiyah Yogyakarta is well performed and the critical value result released by laboratorium is valid. The critical value operational procedure should be added with reporting poin and hospital need to provide LIS to support laboran performance.

[ABS-1285]

Mosaiq and IviewGT Software in Verification of Irradiation Set Up (Study of Conformal Radiotherapy in Nasopharyngeal Cancer Patients at Dr. Sardjito Hospital Yogyakarta)

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Keywords: Conformal Radiation Therapy; Verification; IViewGT Software; Mosaiq Software; Nsopharyngeal Cancer

Verification of the irradiation set up is a process to ensure that the position and volume of the irradiated tumor are the same as planned. It conducted by comparing the radiographic image information of the Treatment Planning System (TPS) with radiation therapy to be provided on the Electronic Portal Imaging Device (EPID). Existing software on the EPID modality device in this hospital are Mosaiq and IViewGT. This study was to describe the details of the verification process and the differences between two software in conformal

radiotherapy of nasopharyngeal cancer patients. This study was a quantitative analytic study. Samples were fifty-two portal images. Data analyzed by statistical software. The results are descriptions of the verification process, and the value of shift set up irradiation on X; Y and Z axis. There is no difference statistically between two software. Mosaiq software is more complicated in image processing. IViewGT software has an advantage in more simple but shows the same quality.

[ABS-1030]

Action Research : the Application of Hemodialysis Safety Checklist

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Keywords: Safety Checklist; Hemodialysis

The application of surgical safety checklist in the health service has succeeded in improving patient safety in surgical room. The use of similar tools might be useful in hemodialysis service. Safety checklist helps medical workers to conduct medical activities more orderly and sequentially in order to reduce the number of unwanted events in patients. The purpose of this research is to arrange the safety checklist in hemodialysis service. This study uses a qualitative method with an action research approach. Data obtained from activities series of observation, interview and Focus Group Discussion in Nitipuran Hemodialysis Clinic. On the stages of Diagnosis Action obtained that the early screening activities and the supervision along hemodialysis activities are still deficient and have a risk of increasing the morbidity and mortality of patients. It is approved to use the tool of hemodialysis safety checklist which

consists by 4 assessment period namely sign in (before action starts), time out (before vascular access), intra (monitoring along dialysis) and sign out (before patient leave hemodialysis room). Tool implemented for 2 weeks. The results of the implementation are very important to provide information about the patient and be written documentary evidence about the compliance of the officer to the actions and supervision that must be performed on the patient. This tool also increases the role of general practitioners in supervising the readiness and change of the patient condition, before and during the action. Hemodialysis safety checklist is useful for helping clinical staff to comply with initial screening activities and monitoring patients during and after the procedure. The obstacles in its implementation need a further evaluation

The Effect of Injection Timing and Emulsified Fuel on Engine Performances and Emission Formation

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Keywords: Water in Diesel Emulsion; Injection Timing; Emissions; Diesel Engine; Combustion

The use of emulsion fuel in diesel engines is intended to improve combustion characteristics and reduce the level of exhaust emissions in the form of HC, CO, and soot. The emulsion used was water in diesel emulsion with a percentage of water of 30% of the total volume and using span 80 and tween 80 surfactants. The study used a single cylinder diesel engine with a variation of injection time 13oBTDC, 17oBTDC, 19oBTDC and engine load of 800-4000 watts. The results of the study

are compared to diesel fuel and standard engine conditions. The results showed that the optimum combustion characteristics value was at 17oBTDC, with a 16.3% increase in thermal efficiency, BSFC only increased by 15.9% and torque increased by 2.56%. At the level of emissions, the optimal value at the time of injection is 17o BTDC with soot decreasing by 18.5%, HC increased by 17.6%, and CO increased by 42.8%.

[ABS-519]

Novel Design for Measuring Human Maximum Bite Force Using Low-cost Sensor

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Keywords: Flexyforce; Human Bite Force; Low Pass Filter

Maximum bite force is an important factor to evaluate the masticatory system level of health and fitness. Dentists often take the maximum bite force as a reference in determining what actions should be performed in a patient. The aim of this study was to present a simple yet handy device for measuring human maximum bite force based on low-cost sensor. Flexyforce, which has suitable shape and size for human teeth, wide measurement range (up to 430 N), good linearity, fast response time (lower than 5 s) and high repeatability, was used as the chosen sensor. Low pass filter is

employed to reduce the existing noise and eliminate drift that occurs when the sensor performs measurement. In addition, to ensure user convenience, the designed device utilized liquid crystal display (LCD) for visualization of measurement results. Based on the conducted test, the designed human maximum bite force measurement device has an excellent performance. It shows through more than 90% in accuracy with the highest error percentage of 1.75% and the mean of error percentage is 0.57%.

[ABS-264]

The Effect of Electric Supercharger and Water-Diesel Emulsion on Combustion Characteristic and Emission

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Keywords: Water in Diesel Emulsion; Combustion; Emission; Mass Flow Rate; Diesel Engine

An emulsion is a dispersion system, where one phase is dispersed in another phase in the presence of an emulsifying agent (surfactant). Emulsion fuel can reduce the cylinder peak pressure of the combustion chamber compared to using pure diesel fuel. The addition of the mass flow rate can increase cylinder pressure, reduce BSFC, increase thermal efficiency, increase diesel engine power and reduce emissions. This research uses a single cylinder diesel engine by varying the electric supercharger from 1861.2 L/min, 3154.2 L/min and 3976.8 L/min with a load engine from 800-4000 watts. The water content of this emulsion is 30% by volume, and using surfactants

(span 80 and tween 80). The water content of this emulsion is 30% by volume and using span80 and tween80 as surfactants. Optimal results obtained on 0,0812 kg/s variations with an increase in thermal efficiency of 12.6%, fuel consumption decreased by 24.5% from neat diesel fuel. As for the emissions produced at smoke opacity, HC, and CO by 9%, 21.35%, and 27% respectively. Cylinder pressure rises by 4.7% from neat diesel fuel when the mass flow rate is added. There is a decrease in heat release rate with 15% emulsion fuel from neat diesel fuel.

[ABS-265]

Image Processing for Corrosion Quantification in Concrete Slabs using GPR data

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Keywords: Steel Rebar; Structure; GPR; Image Processing; Classification

This study aims to quantify the corrosion of steel reinforcing bar (rebar) in concrete structures using ground penetrating radar (GPR) and image processing techniques. A method to accelerate corrosion of steel rebars in concrete slab to different level of corrosion is applied. The power supply and the electrolyte are used to induce significant corrosion within a short period of time. The 2 GHz GPR is used to assess the corrosion in the reinforced concrete slab after 28 days of standard

moist preservation. GPR method has been found to be useful for quantifying steel corrosion on existing concrete slab. The image processing techniques were used to process the GPR data. The results of the analysis of the GPR data shows that corrosion of the rebars could be detected. The subsequent image processing technique exhibits that corrosion of the rebars could be appropriate quantified.

[ABS-521]

Dosimeter Co Card Alarm

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Keywords: Radiation; Dosimeter; Pocket Dosimeter

One type of radiation which widely used in the field of radiodiagnostik is ionizing radiation. Ionizing radiation is a type of radiation with source of radiation X-ray plane that used in many medical purposes such as Roentgen photographs with various benefits. DOSCA (Dosimeter CO-Card Alarm) is an innovative tool that combine the application of dosimeter and dose meter rate technology, namely dosimeter which capable to provide information of dose rate and radiation dose simultaneously directly to the radiographer in effort to ensure radiographer safety while in the field radiation is guaranteed. The results of the tests that performed in the radiology room by using source of radiation X-ray plane

which is controlled by fixed voltage 60Kv and mAs change start from 5mAs. At the expose, the dose point that read on the DOSCA and on BLiT is zero point zero one microSv, then doing re-expose again, and the result on DOSCA and on BLiT is zero point zero two microSv. At the third time expose, the result on DOSCA is read zero point zero two microSv and on BLiT is zero point zero three microSv. Then, when the mAs point is increased to ten miliAs with a voltage sixty Kv, on the DOSCA still produce zero point zero two microSv point and on a BLiT is zero point zero six microSv. Then doing re-expose again, on DOSCA is read zero point zero three microSv and on BLiT is zero point zero seven microSv

[ABS-778]

The Difference of Creatinin Level between Bodybuilding and Aerobic Gymnastic Enthusiasts

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Keywords: Creatinine; Bodybuilding; Aerobic Gymnastic

Background: Good quality of life is a goals of every person. There are much factors that can influence life quality, one of them is body fitness. Sport is one of activities that can be done to reach body fitness. Creatinine is one that influenced by activities because creatinine is a result of meat diet metabolism and creatine metabolism in skeletal muscle tissue. Level of creatinine of each individu will be different depends on it lifestyle. **Purpose:** To know the difference of creatinine level between bodybuilding and aerobic gymnastic enthusiasts, so the influence of sport type toward creatinine metabolism inside the body will be known. **Methods:** This is a quantitative research with non-

experimental design and used analytic-observational with cross sectional survey approach. Quota sampling is used with total ammount for each independent variables is 20 and analyzed with Mann Whitney Test. **Results:** Creatinin levels of bodybuilding enthusiast are 0.71–1.49 mg/dL (Mean:1.0730 mg/dL) and aerobic gymnastic enthusiast are 0.80-1.86 mg/dL (Mean: 0.9745 mg/dL). There is a difference of creatinine level between bodybuilding and aerobic gymnastic enthusiasts with the result of Mann Whitney Test ($p = 0.038$). **Conclusion:** There is difference of creatinine level between body building and aerobic gymnastic enthusiasts.

[ABS-523]

EcoBot (Eco-Friendly Bottle for Diabetics) Innovation of Eco-Friendly Bottle as Automatic Sugar Container for Diabetes Mellitus Sufferer

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Keywords: Consumption; Diabetes Mellitus; EcoBot; Sugar

Diabetes Mellitus prevalence in Indonesian society caused by lifestyle that is excessive energy intake while the activity decreases increasingly. Nowadays, people are eating food that contain rich of energy like sugar. The purpose of this paper is to present EcoBot (Eco-Friendly Bottle for Diabtics) a solute tool to overcome Diabetes Mellitus problem in Indonesia. The research method is using QFD method. This method is divided into several parts, namely planning, implementation, evaluation, and action. Planning is done to identify the problem that is analysis of daily sugar consumption, identifying

materials and tools, and data collection as a reference tool design and conduct research on the data that has been collected. Implementation is done to product design and product production. The evaluation is to test the products to society. Actions are mass production, copyright registration, and registering patents for EcoBot. The mechanism of work of this tool is using NodeMcu, LED and photodiode, servo, LCD, and android application. The expected result is hopefully EcoBot be able to contribute in reducing and preventing Diabetes Mellitus in Indonesian society.

[ABS-268]

Features Extraction of Spinal Curvature using Hue Moment Algorithm

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Keywords: Spinal Problem; Image Processing; Hue Moment

Nowadays, diagnosing the spinal problems is very important to medical field. The objective of this research is to develop feature extraction technique to obtain the features, which automatically differentiate images of normal and abnormal (scoliosis) spinal curvatures. The process to extract features of spinal image start with image acquisition, image processing (i.e. enhancement, filtering, and segmentation). For image processing

method, the most important part in this phase is the segmentation using manual threshold method. After the segmentation, hue moment for size and parameter are used to extract features that should be considered based on probabilistic to classify the spine images. The final experimental result shows that the developed features extraction technique can differentiate between normal and scoliosis spine images.

[ABS-524]

Harmonic Reduction Using Shunt Active Filter for Hospital Building Electrical Installation

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Keywords: Harmonic; Shunt Active Filter; Hospital Building; Power Quality

This paper presents harmonic reduction using shunt active filter for hospital building electrical installation. Harmonic installation in electric power systems is caused by non-linear electrical loads, especially those containing coils, such as air conditioners, pump machines, fans, and others. Harmonic can cause excessive heat in a distribution transformer that supplies an electrical installation in a multi-storey building. This heat is a power loss and has the potential to shorten the

life of a distribution transformer, so that efforts are needed to reduce harmonics. One effective method to reduce harmonics is to use active filters. In this study, a shunt active filter application in the electrical installation of a hospital building was carried out. The results showed that the filter was able to reduce harmonic currents significantly, so that the harmonic threshold was still in accordance with the IEEE standard.

[ABS-16]

Improving the Quality of Carica (*Vasconcellea pubescens*) Sweets by Utilising Automatic Extractor Assistance on the Kejajar Tourism Site

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Keywords: Carica; Extractor; Quality

There are myriad of avenues can be done to process the agricultural products to be more varied final products without neglecting the food safety standard. A shelf life and shelf life preservation should be the priorities in food processing. One method usually done to increase the shelf life of a food product is by preservation. The preservation method which is conducted by small, medium and advanced scale industries involve physical treatments including heating, drying, cooling and freezing, and adding chemical substances. Preservation is also executed through a combination method that is by mixing those aforesaid methods in one running process of preservation. Carica (*Vasconcellea pubescens*) is a primary commodity of the agricultural sector on the Kejajar Village, Wonosobo, Central Java, in which the village is situated in Dieng Plateau. Carica has a unique

flavor, distinctive aroma, and chewy flesh. However, Carica is vulnerably fragile regarding its shelf life. Due to its fragility, it is impossible to store the Carica in fresh condition for a long period. Therefore, advance food processing is necessarily needed to extend its shelf life, to make it more practical in terms of consumption, and to improve its economic value in terms of business. Sunrise is one of the developed medium scale enterprises which focuses on processing Carica fruits to be Carica sweets in Dieng, Wonosobo. The society service program aims for 1) applying an appropriate technology in medium scale industry of Carica fruit processing, 2) examining the effectuality of the appropriate technology application in influencing the length of the boiling process and improving the quality of Carica Sweets.

[ABS-272]

Feasibility Analysis of Peanut Butter Agroindustry in Indonesia

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Keywords: Feasibility Analysis; Agroindustry; Peanut Butter

The results of the mapping show that the factors to support the availability of raw materials for peanuts in Indonesia are, Land area (paddy field, dry land, young rubber and young palm plantation area, 700 meters above sea level land, and former plantation HGU land); Productivity increases (superior varieties, Appropriate Technology, Guidance and Extension, control of Plant Disturbing Organisms); Planting period (harvest age 90 days and can be planted sustainably throughout the year); Interest of farmers to plant (more profitable because prices are higher than soybeans and corn); Stable prices; Smooth marketing (oligopoly marketing system, and

short marketing chain); Low Business Capital (government subsidies in the form of seeds, fertilizers, pesticides, alsintan (agricultural machinery and equipment), business loans with low interest and simple administration); Consumer interest (public awareness of a healthy lifestyle by consuming good fats which are beneficial for heart health). Peanut good fat is highest (47.7% per 100 grams) among other types of nuts, and contains phytosterol to reduce cholesterol levels and triglyceride levels (one of the causes of heart disease). Based on the supporting factors for the availability of sufficient and sustainable peanut raw material as the

primary condition for the establishment of agroindustry, the problem in this study is whether the peanut butter agroindustry is feasible to be developed in Indonesia. To find out the feasibility, the research methodology carried out is collecting data and related research journals, than

processing data. From the results of data processing and analysis, conclusions/information will be obtained about the feasibility of developing peanut butter agroindustry in Indonesia.

[ABS-273]

Design Control Systems for Jig Rotary Table with Servo Motor on the Spot Welding Machine using the Programmable Logic Controller

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Keywords: Design Control Systems; Jig Rotary Table; Servo Motor; Spot Welding Machine; Programmable Logic Control

In this paper, we design control systems that can control a servo motor on a spot welding machine. As controller, the PLC can control the rotary movement on the jig table. In this case, we design the control system, input and output cabling systems to and from the PLC. There is a request for change in the condenser model, so the spot welding machines are designed and made

specifically to be used to perform three times welding process on new type condenser parts. From the testing and result, we find that the rotary table jig on the spot welding machine can move according to the required welding angle i.e. 17. It can do the welding process to reach the new condenser specifications.

S-1043]

The Effect of Date (*Phoenix dactylifera*) Powder on the Amount of Sperm and Diameter of the Seminiferous Tubular Rats (*Rattus norvegicus*) Exposed to the Air Freshener

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Keywords: *Phoenix dactylifera* Powder; Sperm Count; Seminiferous Tubule Diameter; Air Freshener

In general, people enjoy the sensation of the aroma emitted by air freshener, so they are not aware of the hidden dangers behind their comfort. Air freshener contains various volatile compounds that are harmful to the health of the body, including formalin and phthalates. Formalin and phthalates adversely affect the reproductive system. Dates (*Phoenix dactylifera*) contain various important nutrients, including Zn which was needed for the process of spermatogenesis. This study aims to reveal the effect of date palm powder on sperm count and diameter of seminiferous tubules of *Rattus norvegicus* exposed to air freshener. The subjects of this study were 32 30-day-old male, white rats (*Rattus norvegicus*). The subjects were divided into eight groups,

namely: control, date1, date2, date3, date1 air freshener, date air freshener, date air freshener, and air freshener. Each group consisted of 4 rats. The air freshener used is deodorant X in the form of a gel, lemon fragrant. Dates are given in 3 doses namely 120mg/KgBW, 240/KgBW and 360KgBW. Treatment was given for 30 days. The parameters observed were the number of sperm and the diameter of the seminiferous tubules. Data were analyzed statistically using ANOVA test at 95% confidence level. The results showed that administration of date palm powder had an effect on increasing sperm count in subjects exposed to air freshener (Sig 0.03), but did not affect the diameter of the seminiferous tubules.

[ABS-1300]

Challenging the Profiles of Digital Library: A Survey on Empowering Creative Presenters to An International Interdisciplinary Conference

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Keywords: Profiles; Digital Library; Empowering; Creative Presenters; Interdisciplinary

This paper examines the EFL presenters' perception on viewing using the profiles of digital library on empowering creative presenters to an international conference. The data were collected for 4 months starting from compiling survey in October 2018 to January 2019 in some conferences presenters IAIN Tulungagung, UM, UNS, UI, and UNDIP campus in the sense of data collection, through interview, and questionnaire. This study involves 30 Indonesian undergraduate and 25 graduate students who were majoring in English, agriculture, literature, library, teaching language, Arabic, and joined presentation in international interdisciplinary conferences. The presenter used and empowered the profiles of digital library in writing articles in some international conferences which were held in some cities, East Java, Central Java, Indonesia. The data was analyzed using qualitative approach. The finding revealed that there were various presenters' perspective in using profiles of digital library. The study also showed the benefits of

using the profiles of digital library such as online public access catalog, links, feed display, category, E-resource, file E-book, LibX, Searchbox, management master file, web designer, proxy server, ftp server, mail server, data base server, network administrator. In addition, the profiles of digital library make them to be creative to be the member of researchgate.net and ORCID. The results of this study proved that 85% presenters give a good feedback (involved into open science era, taking integrated topic based on their interest, become more creative with sophisticated features of digital library, feel enjoyable with the accurate and fast of managing of the digital library, save time, place and cost toward the serving of the digital user to look for data or books they need, to be able to complete their articles with the helps of the facilities in digital library, propose some references that these digital library have not provided yet) while 15% students have negative responses (feel difficult in using the profiles of digital library, bad server, low bandwidth).

[ABS-277]

Effectiveness of Durian Peel Extract as a Natural Anti-Bacterial Agent

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Keywords: Durian Peel; Natural Anti-Bacterial Agent; Hand Sanitizer

Durian (*Durio zibertinus*) is a native tropical fruit from Southeast Asia, especially Indonesia. Durian peel is the highest composition of durian fruit (60-75%), and is still considered as waste that causes environmental problems. This study aimed to analyze the content of secondary metabolites extract, to analyze the anti-bacterial activity of durian peel extract against gram-negative and gram-positive bacteria, and to calculate the effectiveness of durian skin durian peel extract as a natural anti-bacterial ingredient in hand sanitizer products by using the paper disc method. Durian peel was extracted with ethanol to obtain extract solution which was then separated from the solvent and applied

as an ingredient for hand sanitizer. The Analysis results showed that durian peel extract contains triterpenoids, alkaloids, and saponins, which are phytochemical compounds that anti-bacterial function. Durian peel extract at concentration of 1% wt. inhibited the growth of *Escherichia coli*, *Salmonella thyposa* and *Sthapylococcus aureus* with a clear zone diameters of 7.4 mm, 8.2 mm and 8.6 mm, respectively. In anti-septic tests, hand sanitizer samples containing durian peel extract showed that the interaction between the concentration of durian peel extract and the sampling duration simultaneously gave a significant effect in reducing the number of microorganism colonies.

[ABS-26]

The Prevention Behaviour of Green Tobacco Sickness (GTS) Syndrom at Tobacco Farmers : The Role of Health Literacy

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Keywords: GTS (Green Tobacco Sickness); Health Literacy; Tobacco Farmers; Prevention Bihaviour

Based on data from the results of existing studies and references indicate that incidents of GTS incidence in tobacco farmers is quite high. On the other hand, research related to GTS disease is still minimal. In addition, tobacco farmers are also not many who know very well about GTS. Whereas according to Soemitro (2014), good knowledge and sufficient income can be associated with a good health literacy as well. The purpose of this study was to conduct research on the relationship between duration of work, smoking status, knowledge of GTS, and personal hygiene with GTS status of tobacco farmers, as well as education, knowledge of GTS, income and GTS status of tobacco farmers with health literacy. This research used analytic observational method with cross sectional approach design. The research was conducted in Mayang Sub-district of Jember Regency in October 2017. The sampling technique used purposive sampling method with 30 samples of tobacco farmers. Data analysis used

was univariate analysis and bivariate analysis using Chi-square test with SPSS 22 software. The results showed that the radio became the most source of information by 53.3%. While the source of health information from the internet was never reached by all respondents. Health literacy identification showed that 83.3% had poor Health literacy, 16.7% others had sufficient health literacy and no respondents had a good health literacy. The statistical results show that there is a significant relationship between the length of work, knowledge of GTS, personal hygiene with GTS status. While smoking status ($p = 0,273$) there is no significant relationship with GTS status. The level of education ($p = 0.0001$) and the knowledge of GTS ($p = 0,000$) have a significant relationship with health literacy. Health counseling and discussion to be held more frequently by health workers, farmers groups and cooperation both, the distribution of health information about GTS using interesting media more evently to all spaces of the village.

[ABS-27]

Indoor Air Quality Monitoring in the Public Space in Order to Advocate Smoke Free Area (SFA)

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Keywords: Indoor Air Quality Monitoring; Public Space; Advocacy; Smoke Free Area (SFA)

Cigarette smoke is a complex mixture of gases and particles that contain many carcinogenic and toxic compounds, which is the result of smoke in the room. One way to solve the problem of smoking in the room is the implementation of SFA regulation. This regulation is very important to reduce air pollution caused by cigarette smoke and reduce the harm of smoking and provide healthy air to the community. There are seven areas covered by SFA regulation. Therefore it is very important to know about "What is the 7th public places

containing air pollution caused by cigarette smoke so that the necessary implementing legislation SFA in Jember?". The aim of this study is to monitor the air quality in areas which are covered by SFA regulation in Jember, with details of the following specific objectives: Measuring the concentration of particulate matter (PM2.5) in places which are covered by SFA regulation, as well as proving their smoking activities affect the poor indoor air quality. This study is a descriptive cross-sectional study design using regional monitoring and

observation. The study population is SFA that located in Jember. The total sample is 100 public places. Samples were selected purposively with the criteria area frequented by the general public, is a place whose existence to the characteristics of a city (icon). The air quality is measured by PM2.5 monitoring will be done in the building for at least 1 hour with the first 15 minutes of the procedure outside the building, 30 minutes in the final 15 minutes of the building and back outside the building. The results showed that there were 56% of the 100 public places that have air quality above the threshold the WHO standard is 25 ppm. Public areas in question consists of; hotel, office, modern markets, traditional markets, health centers, restaurants, terminals, hospitals, places of worship, educational facilities,

entertainment venues, and other public places. From an average of PM 2.5 measurement result, traditional markets and entertainment venues occupy first and second place for air quality above the threshold the WHO standard (25 ppm), which amounted to 69.2 ppm and 60.6 ppm. While the lower level of education facilities has cleaner air quality according to the WHO standard is 18.4 ppm. From this study it can be concluded that most of the area public places in Jember have poor indoor air quality that is above the standard threshold of WHO. This is due to the policy of SFA in Jember. Efforts are required to advocate for SFA regulation in Jember in order to protect the publics right of non smokers to breathe clean and healthy air at the public facility.

[ABS-1051]

Users Acceptance in Using the Primary Health Care Management Information System: Literature Review

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Keywords: Health Information System; Primary Health Care; User Attitude; Patient Safety

Background: Health information system users have an influence on the efficiency of a system in providing health services so that it can increase the value of patient safety. We conducted a literature review in knowing how the user acceptance in using a health information system. **Method:** Literature review is conducted by looking for articles from 2008 to 2018 using a database from PubMed. Articles are accepted in this study if they examine the influence of user attitudes on the running of health information systems in hospitals and primary services. Sorting articles through abstracts and free full text articles. **Results:** A total of 148 articles on the influence of user acceptance towards health information systems, 25 articles included inclusion criteria. Various user acceptance assessment models such as the Technology Acceptance Model (TAM), and the Unified

Theory of Acceptance and Use of Technology (UTAUT) are used in a number of these articles. Most articles explain that cooperative users can make health information system become efficient, but several environmental and personal factors can influence the system. **Conclusion:** Making an efficient health information system, a cooperative user attitude and acceptance is needed. The existence of environmental and personal factors is an obstacle in the system, so it needs an effort from the hospital management and primary services to improve the quality of existing resources in order to achieve the main goal of improving patient safety. Future research is needed to examine how the hospital or primary care management can increase existing resources.

[ABS-540]

Implementation of Electrical Batik Stove for Green Batik Industry

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Keywords: Electrical Stove; Batik; Green Industry

This paper proposes implementation of electrical batik stove for green batik industry. Batik is the process of writing a picture on a piece of cloth by using wax batik as a color barrier. In the process of making batik, the stove is a very important tool to heat the wax until it melts. The melted wax is used to make a picture with a certain pattern on the white cloth. So far the stove technology used is kerosene-fueled stoves. The stoves produce smoke pollution which disrupts batik production houses. The smoke produced by kerosene stoves contains CO, CO₂, NO₂, and SO₂. In addition, kerosene is often rare and prices tend to be more

expensive. Therefore, in this study electrical stove was carried out for the batik production. In implementation, technical and economic analysis has been carried out. Technical analysis is done by comparing the quality of the results of kerosene and electrical batik stove stoves. Furthermore economic analysis is done by comparing the production costs for the two types of batik stoves. The results showed that technically the quality of batik candles melted using electrical stove was better and the temperature was more stable. The results of economic analysis also show that the production costs using electrical stove are much lower.

[ABS-797]

Application of K-Means Method in Clustering RPG Warrior

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Keywords: K-Means; Data Mining; Android; Power Ranger; Team

The variety of virtual game champions Power Ranger Legacy Wars on the smartphone platform makes users confused in determining the formation of the team. But the choice of team formation during the process of playing video games requires a thorough skill and strategy that can sometimes lead to unexpected problems

due to poor choices and can affect the game. In this paper, we will present the K-Means method to clustering warrior of team selection in the game, then we will discuss the results to see whether the method chosen provides the right decision that will help players choose combination the warrior ranger easily in the game.

[ABS-1053]

Evaluation on the Implementation of Out patients BPJS Claims in PKU Muhammadiyah Hospital Unit Gamping Yogyakarta

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Keywords: BPJS; Verification

The National Social Security System (Sistem Jaminan Sosial Nation) is a type of social protection aiming to support all citizens, in terms of health particularly, in order to fulfill the basic needs for a decent life. The health care provider care paid in capitation by BPJS (Badan Penyelenggara Jaminan Sosial) or (Social Insurance Administration Organization). The payment system for Advanced Health Service Providers (Hospitals) is made through the INA CBG (Indonesia Case Base Groups) is tarif by BPJS. However, problems often arise in regards to BPJS claims. The data collection is performed in several stages, starting with the formulation of the type of research and research designs, and also involvement of subjects and objects of research as the participants of the study. The next stage is to create the instruments and analyze the data in order to investigate the problems related to BPJS claims in PKU Muhammadiyah Yogyakarta Gamping. This research is type of qualitative research with case study. The subjects of this study are internal hospital. The study involved 8

(eight) informants in total. The procedure for claiming BPJS include administrative verification, participant verification (eligibility) and purification. BPJS administrative verification conducted by PKU Muhammadiyah Gamping Hospital towards both participants and providers has been going well. Conformity between diagnosis and billing procedure with ICD 10 and ICD 9 codes in INA CBG is at PKU Muhammadiyah Gamping Hospital has complied with the procedures of BPJS health service verification. However, verification in terms of data purification using INA CGB is software is not thoroughly implemented due to the fact that only a few people are familiar with this verification. There are problems with BPJS outpatient claims at PKU Muhammadiyah Gamping Hospital including the difference in diagnosis between the hospital and the verifier. It does not examine the registration part in selecting patients who will enter in hospital. Incomplete files filled by doctors Some cases of clerics that are not paid by the BPJS.

[ABS-542]

The Influence of Smoking Habit to Voice Handicap Index Score

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Keywords: Smoking; VHI Score; Voice

The vocal folds react to smoking, from irritate the mucous to the tissue changes or dysplasia that degradation of voice performance in daily living. This study determine the influence of smoking habits to the voice handicap score by Voice Handicap Index score (VHI). The design was a retrospective cohort study from 96 adults that identified level of voice fatigue through VHI. From the history there were divided into 3 groups: a group of active smokers, passive smokers and nonsmokers. The statistical test used was Chi-square test and regression nominal test. Voice fatigue (VHI score > 20) in both active smokers (13.54%) and passive

smokers (15.62%) compared with nonsmokers (6.25%), by Chi-square test results was $p = 0047$ ($p < 0.05$). Nominal regression test between 3 groups of samples were (RR = 3.0, CI 95% = 0.95 to 9.21) between the group of active smokers and passive smokers (RR = 3.8, CI 95% = 1,23-11.80). Smoking habits influence the voice handicap score in both active smokers and passive smokers compared with nonsmokers. Active smokers have a risk of fatigue voice 3 times more often than nonsmokers and passive smokers have a risk 3.8 times more often than non-smokers.

[ABS-1314]

Induction Motor Fault Detection Using Motor Current Signature Analysis Technique

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Keywords: Induction Motor; Monitoring; MCSA; Faults

This paper presents a study of induction motor fault detection using motor current signature analysis technique. Nowadays, the three-phase squirrel cage induction motor became the key element in all industrial plants. The advantage of using this type of motor is that the construction is simple and almost without maintenance. In long-term operations, induction motors can experience interference that can inhibit the production process and have an impact on decreasing productivity and financial losses. To prevent these adverse effects, well-planned maintenance and monitoring are needed. The monitoring system needed is

a condition monitoring system that can predict and identify pre-fault conditions so that it is useful to prevent the time of unwanted damage. Motor current signature analysis (MCSA) technique is a reliable technique for identifying induction motor pre-fault conditions. This study focuses on the experimental results of three phase induction motor monitoring to identify the condition of the rotor bar and the unbalanced stator current. Analysis of monitoring results is presented in this paper and several key variables related to motor damage are discussed.

[ABS-1061]

Analysis of Factors Affecting Intention of ERP Cloud Adoption in SMEs

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Keywords: SMEs, Cloud ERP Adoption, TOE Framework, DOI Framework, Factor -Analysis

Industry 4.0 has changed the way of life, work and interact, creating new opportunities and challenges. One characteristic of Industry 4.0 is cloud computing. To deal with these challenges, SMEs need an application that can integrate and automate SME business processes. Cloud ERP applications can be one solution for SMEs because of the benefits that can be given such as providing information with fast response times, increasing interaction between parts of an organization, improving the management of goods ordering cycle, etc. This study aims to determine what factors influence intention adoption of Cloud ERP in SMEs using the Factor Analysis method. Determination of factors integrating the framework of TOE (Technology, Organization, Environment) and DOI (Diffusion On Innovation) which produces 17 research factors. The number of respondents

is 95 SMEs. This study use extraction dan rotation phase with Varimax Method. The analysis of factors generating the value of Kaiser-Meyer Olkin (KMO) and Bartlett's Test of 0.744. The results showed that there were 12 factors out of 17 factors that influenced the adoption of ERP Cloud in SMEs. With Factor Analysis, the 11 factors can be summarized into 3 main factors, namely the Companies Internal Factors (consisting of Management Support, Absorptive Capability, Employees Knowledge and Perceived Value); Supporting Factors (consisting of Size of Firm, Competitive Pressure, External Support, and Business Partners); and Technical Factors (consisting of Technical Know-How, Compatibility, Relative Advantage, and Observability).

[ABS-550]

Simulation Study of Effect of Resonator Length and Stack Wire Mesh Porosity to the Acoustic Power of Thermoacoustic Engine with Delta EC

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Keywords: Thermoacoustic Engine; Delta EC; Stack Wire Mesh Porosity; Resonator Length; Acoustic Power

Thermoacoustic engines convert heat energy into pressure amplitude sound waves, that is used to drive bidirectional turbine by replacing streaming fluid flow such as wind turbine. The increasing interest in thermoacoustic technology of its potentiality of no exotic materials, low cost, and high reliability is compared to mechanism wind turbine system. The simulation set up in Delta EC has been built based on the linear thermoacoustic model and simple design

parameters. The engines produce acoustic energy at the temperature difference of 315 until 993 K imposed along the stack of the system. The work illustrates the influence of porosity of stack wire mesh screen with resonator length on the acoustic power of thermoacoustic engine using air as a working fluid. That can be inferred in the results obtained from the simulation are in good agreement with the theoretical result from an experimental study.

[ABS-1063]

Increasing Healthcare Worker Compliance on Informed Consent: A Systematic Review

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Keywords: Compliance; Healthcare Worker; Informed Consent

Informed consent is an ethic and legal obligation, given before invasive procedure by the healthcare worker to the patient or family, part of patient safety implementation. The research aims to identify and describe qualitatively how to increase healthcare worker's compliance on informed consent. Methods: Systematic searches of the literature were conducted using the major database, PubMed, by typing keywords (example *compliance, healthcare worker, doctors, informed consent, agreement*) which published from 2015 to January 2019. We summarized and analyzed the factors, intervention, and approach that can be used to increase healthcare worker's compliance on informed consent. We identified 10 systematic review journals from 2015 to 2019. Most of the studies were in hospitals and the population consisted of doctors, dentists, nurses,

and pharmacists. Factors that influence the compliance of healthcare worker in implementing informed consent include self-confidence, habits, knowledge, ability, gender, age, empathy, workload, socio-cultural, and health system. The interventions that can improve the compliance of healthcare worker in implementing of informed consent, in terms of education combined with audits and feedback, remind each other between healthcare worker, psychological interventions, attitudes and behavior, compare pre and post, and monitoring. Healthcare worker's compliance on informed consent influenced by socio-culture, workload, gender, knowledge, and ability. To improve compliance, it is necessary to conduct audits, feedback and improve cognitive behavior.

[ABS-296]

The Effects of Pilot Injection Timing in Dual-Fuel Diesel Engine using Biodiesel-CNG on The Combustion Characteristics and Exhaust Emissions

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Keywords: Pilot Injection Timing; Diesel Dual Fuel; Biodiesel-CNG; Combustion Characteristics; Exhaust Emission

Biodiesel and compressed natural gas (CNG) are alternative fuels that can be used in a dual-fuel diesel engine. In this study, Biodiesel was used as a combustion pilot which injected directly into the combustion chamber, and CNG was used as a substitution fuel. CNG was injected into the intake manifold and controlled by an electronic control unit (ECU). The pilot injection timing has an important role in controlling the initial combustion process in dual-fuel diesel engine. The engine was operated at constant speed of 1500 rpm and was given low and high load. The pilot injection timing

in dual-fuel diesel engine was varied from -11° to -19° in steps of -2° crank angle (CA) after top dead center (ATDC) to investigate the combustion characteristics and exhaust emissions. The results show that, with advanced pilot injection timing, cylinder pressure and heat release rate (HRR) increase by 20.4% and 13.1% respectively at low load. Moreover, cylinder pressure increase by 12.5% but heat release rate (HRR) decrease by 25% at high load. For the lower exhaust emissions, can be achieved with advanced pilot injection timing -17° CA ATDC at all test conditions.

[ABS-555]

Humidity Analysis Using 808H5V5 by Mean Formula

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Keywords: Baby Incubator; Humidity; Sensor

Humidity and noise in the baby incubator is a parameter that must be maintained according to the BPFK (Health Facility Security Center) standard, which is fifty to sixty percent for humidity. Moisture needs to be maintained to maintain the stability of the baby's body temperature. Therefore, the author intends to make a calibration tool for baby incubators (incubator analyzers) with moisture parameters. To measure the moisture content, the 808H5V5 sensor is used, while the minimum system used is Arduino Uno. The test method

used to see the performance of this tool is to compare the values in the humidity of the TA module, the incubator analyzer with a comparison (Temperature Humidity Meter). At the humidity reading the error value is below two percent, where the biggest error is in the measurement value of thirty seven Celcius degree which is one point fifty six percent. The tool is functioning properly as an incubator analyzer because it has an error below tolerance of approximately five percent.

[ABS-1324]

A Study of Hybrid Solar Photovoltaic and Micro-hydro System for Rural Areas of Yogyakarta Special Region

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Keywords: Solar PV; Micro-Hydro; Renewable Energy; Rural Area

This paper presents a study of hybrid solar photovoltaic and micro-hydro system for rural areas of Yogyakarta Special Region. The Yogyakarta region is very potential in developing renewable energy for the supply of electricity, especially in rural areas. Efforts to develop renewable energy is in line with the Indonesian government program that targets until 2025, in Indonesia the electrical system is supplied by power plants by 25% comes from renewable energy. The types of renewable energy that have the greatest potential in Yogyakarta are solar photovoltaic and micro-scale hydro energies. In this study, the potential of micro-hydro power plants was

revealed by measuring the irrigation water flow, head, and the output power produced. The potential of solar photovoltaic energy is obtained from solar radiation data for the Yogyakarta region. Data on the potential of the two energy sources is then used to design a hybrid power plant for the needs of a villages electricity supply. To get the appropriate generating capacity, a survey of the villages electrical energy needs is carried out. The results of the design of the generating capacity, the required investment costs, the selling price of electricity, and the payback period are discussed in this paper.

[ABS-301]

Comparative Analysis of Naive Bayes and C4.5 Algorithms for Predicting Student Acceptance in Public Universities (Case Study: SMAN 2 Kota Bekasi)

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Keywords: C4.5; Naive Bayes; Student Achievement

Learning achievement can be measured by school report cards. The challenges in this study can be done by using a classification method to predict learning achievement using classification algorithm namely Naive Bayes and C4.5. After a comparison between the two algorithm, the result of the prediction of learning achievement are obtained. It is clear that the naive bayes algorithm has an accuracy value of 69.18% and the AUC value of 0.771 is included in the fair classification, while

the C4.5 algorithm has an accuracy of 65.65% and the AUC value of 0.686 is in poor classification. From these result it can be concluded that the naive bayes algorithm has a higher accuracy than the random forest algorithm and C4.5, the difference in accuracy between naive bayes and the difference between naive bayes and C4.5 is 3.53%. Thus the naive bayes algorithm can predict student achievement better.

[ABS-302]

Effect of Kersen Leaf (*Muntingia calabura* L.) Ethanol Extract as Antihyperlipidemi on Hyperlipidemia Rat Models

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Keywords: Ethanol Extract of Kersen Leaf; Lipid Profile; Hyperlipidemia Rats Model

Hyperlipidemia is one of risk factor that can induce cardiac and vascular disease. Kersen leaf is believed lowering lipid profile because it is consist of flavonoids and tannins. The present study was a laboratorium experimental study with pre and post test control group design. The subjects were 30 male white rats (*Rattus norvegicus*), body weight approximately 200 grams, aged 3-4 months. Rats model were given high-fat diet and PTU for increasing lipid profile level. Rats divided into 5 groups with random sampling. The groups were negative control was not given any treatment, positive

control was given simvastatin treatment, and (P1),(P2),(P3) group was given ethanol extract of kersen leaf 100, 200, and 400 mg/kgBB respectively. This study was held for 4 weeks. Lipid profile level was measured before and after therapy. The results showed that ethanol extract of kersen leaf (*Muntingia calabura* L.) at dose 400 mg / kgBB optimally can decrease LDL, total cholesterol and triglyceride level and can increase HDL level compared to standard therapy simvastatin. Overall, ethanol extract of kersen leaf (*Muntingia calabura* L.) is a potential folk medicine as antihyperlipidemi.

[ABS-303]

The Evaluation of the Use of Post Partum Intra Uterine Device (PPIUD) in Spontaneously and Sectio Caesarean Delivery

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Keywords: Post Partum IUD; KB Pasca Persalinan; Spontaneously; Sectio Caesarea

The post partum family planning (Keluarga Berencana Pasca Persalinan/KBPP) is conducted because it is safe to be done, can increase the family planning coverage, has the effectiveness of time and can decrease the Maternal Mortality Ratio (Angka Kematian Ibu/AKI). The post partum family planning coverage is still limited. Therefore, it is needed to have the evaluation of PPIUD in the professional practice of a Obstetrician and Gynecologist in Klaten, Central Java. The observational study was conducted by using the cross-sectional design. The data were collected from the

medical record for two years; start from April 2016 to December 2017 by using inclusion criteria for women who gave birth both spontaneously and section caesarean (SC) and were willing to do PPIUD installation. The data were collected at the first checkup, i.e., 5th day to 7th day postpartum, the second check-up, i.e., one month after the first check-up, and the third checkup, i.e., six months after the second checkup. The collected data were in the form of the age, the number of pregnancy, the way of birth delivery (Spontaneously or SC), based on the evaluation of the existence of

leucorrhoea, erosion portio, expulsion, translocation, menometrorrhagia, husbands complaints and pain. The result of the research was analyzed descriptively. The result of research showed that 57 respondent fulfil the inclusion and exclusion criteria. The respondents were approximately 28.96 years old; parturition was more or less 1.74 times, IUD was installed at SC 87.72% and

spontaneously delivery 12.28%. The respondent who has leucorrhoea was 66.67%, but these respondent have no erosion portio, expulsion, translocation, menometrorrhagia, husbands complaints and pain. It can be concluded that PPIUD is safe and well to be conducted.

[ABS-559]

Benign Migratory Glossitis in A 4 Year Old Child : Case Report

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Keywords: Benign Migratory Glossitis; Geographic Tongue; Children

Introduction. Benign Migratory Glossitis (BMG) is a benign condition in the lateral and dorsal of the tongue with a movable pattern. Characteristic of lesions in the form of reddish patch surrounded by white bands with elevated and irregular edges. BMG is often found accidentally during routine examination and is asymptomatic or symptomatic. Etiology is not known exactly, but is related to a number of factors such as hereditary, nutritional deficiency, allergy and others. **Objective.** This case report was written, a case of BMG in a 4 year old child because the mother was worried about the condition. **Case.** A mother with her 4 year old son came to the UMY Hospital with complain of reddish patch on the tongue, since 6 months ago, recurring with a shifting pattern. The patient mother was worried about

the condition, even though there was not any pain complain by the child. Among the family members there were no similar conditions found. Good general health history, poor diet and oral hygiene habits. Intraoral examination showed red patch with elevated edges, white and irregular. Within 3 months of observation there were changes in the pattern of lesions on the first, second and third visit. Case management were provide by communication, information and education to the mother, including explanation related to BMG is not a malignancy, an infectious disease with multifactorial causes. Patient was advised to maintain oral hygiene. **Conclusion.** Benign Migratory Glossitis is a benign condition that does not turn malignant. There are no treatment needed, except BMG with a symptomatic.

[ABS-304]

Improve the Attitude of Healthy Living with Emotional Intelligence

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Keywords: Emotional Intelligence; Attitude of Healthy Living

Healthy is influenced by various factors, such as diet, physical activity pattern and non physical, mindset, and behavior pattern. Healthy behavior is determined by the way a person behaves. Some of the factors that influence the formation of a healthy lifestyle include individual

insights, environment, culture, beliefs, information media, institutions, religion, residence and emotions. Ability in control is determined by the condition of emotional intelligence. Emotional intelligence is believed to be the main basis in realizing the ability of

self-management. Good self-management encourages to determine the formation of a healthy attitude Based on the above background it is important to examine the formation of a healthy lifestyle with emotional intelligence. This study aims to determine the formation of a healthy life attitude with emotional intelligence. Respondents in this study were grouped into control group and treatment group, each group of 10 employees. The control group and the treatment group tested the emotional intelligence as well as the healthy life attitude with the questionnaire. This measurement is carried out before and after the treatment. Treatment groups were given emotional intelligence training for 4 stages. Each

stages 3 face-to-face sessions in the meeting room. The result of One Sample Kolmogorov-Smirnov Test and Pair Sample Test showed that after training treatment there was a significant increase of emotional intelligence ($p = 0,002$) and healthy life attitude ($p = 0,010$). The result of linear regression analysis showed very strong correlation ($R = 0,800$) and there was significant correlation correlation ($p = 0,005$) between emotional intelligence to the increasing of healthy life attitude in factory employees. Healthy life attitude on factory employees can be formed with emotional intelligence.

[ABS-1332]

Diuretic Effect of the Aqueous Extract of Green Tea Leaves

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Keywords: Diuretic; Aqueous Extract; Green Tea Leaves

The use of diuretics is needed in situations that require increased water expenditure, one of which is hypertension. Green tea leaves are natural ingredients containing catechin polyphenols (flavonoids). This study aims to determine the diuretic effect of the aqueous extract of green tea leaves (AEGTL). This experimental study using 35 Swiss male mice was divided into 7 groups. Group I was given CMC Na 1%, group II was given dose of furosemide 5.2 mg/KgBB, and group III-VII was given aqueous extract of green tea leaves with doses of 14, 28, 42, 56 and 70 mg/kgBB. Before treatment, all mice were given warm water orally as

much as 0.4 ml/20 kgBB. Testing of diuretic effects by measuring urine volume, measurements taken for 6 hours then calculated diuretic activity. From the results of the study obtained the diuretic activity of furosemide is 1.00 and for groups III-VII was given AEGTL respectively 0.53, 0.57, 0.60, 0.71 and 0.91. Green tea causes increase in glomerular filtration rates by increasing blood flow and cardiac output which may contribute to diuretic activity. It can be concluded that AEGTL doses 70mg/kgBB have diuretic activity that is equivalent to furosemide ($p < 0.05$).

[ABS-1333]

Implementation of Patient Identification in Patient Safety : Literature Review

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Keywords: Patient Identification; Patient Safety

Background: Patient safety is a crucial issue and a focus of policy standard in internationally accredited organizations. Patient identification (ID) errors can disrupt care and harm patients in virtually every facet of

clinical medicine, including diagnostic testing, medication administration, and even billing. Method: A medical librarian performed searches of PubMed, MEDLINE and the Patient Safety Network to identify

relevant studies published from January 2008 to October 2018. We used medical-subject keywords: Identification patients, medical errors, patient safety, medication errors. Sorting articles through abstracts and free full text articles. Results: A total of 57 articles about the importance of patient safety in patient identification, 20 articles including inclusion criteria. Journals including inclusion criteria discuss the effectiveness of bracelet identification models, patient safety through patient identification. Many nurse, doctors and technician in clinical settings still found a patient identification culture

carried out by health workers such as medical staff and paramedics who are not right. Conclusion: Implementation of patients identification by nurse, doctors and technician in clinical settings have not done properly still far from expectations. Therefore management must to evaluate and monitors routine implementation of patients identification at the hospital to civilize the officers to identify patients become a culture that is usually done by nurse, doctors and technician in clinical settings.

[ABS-568]

Anti-Inflammatory Activity of *Ficus carica* and *Ziziphus spina-christi* Leaves

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Keywords: *Ficus carica*; *Ziziphus spina-christi*; Antiinflammation

Medicine (TCM) because of the Ying (cold) element they have; This study aims to know the influence of various concentration ethanolic extract of *Ficus carica* and *Ziziphus spina-christi* leaves on cream and gel formulation to anti-inflammatory activity; This study used fifteen treatment groups; each of which consisted of six mice with balb / c strains; Fifteen groups included three control groups namely one group that received base cream and gel without extract; one group that became a positive control by giving voltaren emulgel; and one

group that was induced by croton oil without healing; The other 12 groups were inflammatory-induced groups with croton oil and received tin extract cream and bidara leaves; The results of study showed the increasing concentration of ethanolic extract of FC and ZS leaves caused the decreasing of the value of COX-2; thickness of epidermis and the amount of inflammatory cell; The gel has the best antiinflammatory effect compared to cream;

[ABS-571]

Managing the Distribution Network Configuration Using Hybrid Fuzzy Particle Swarm Optimization Algorithms

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Keywords: Electrical Distribution Network; Reconfiguration; Fuzzy Logic; PSO

This paper proposes the use of a hybrid fuzzy particle swarm optimization (PSO) algorithm for managing the electrical distribution network configuration. Configuring a network greatly determines the performance of a distribution system. The optimal

configuration will produce a low losses distribution network. Many methods have been developed to optimize distribution networks to get the most optimal configuration. In this study, distribution network optimization using hybrid fuzzy PSO algorithms has

been carried out. The advantage of the PSO method is that the computational speed is very good, but it often experiences premature convergence because the value obtained is not really a global optimum. Therefore, it is necessary to add fuzzy logic based methods to regulate the inertia weight and learning factors in the PSO. This hybrid fuzzy PSO algorithm is applied to the distribution

network of 69 bus IEEE standards and the Bantul distribution network, Special Region of Yogyakarta, Indonesia. The results showed that the fuzzy-PSO algorithm was able to produce optimal distribution network configurations. Power losses of distribution network generated using hybrid fuzzy PSO algorithms is smaller than the conventional PSO algorithm.

[ABS-827]

Bibliographic Management in Systematic Review Project : Utilizing the Open Source Software Zotero

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Keywords: Systematic Review; Bibliographic Software; Zotero

Systematic review (SR) is the highest evidence based resource in the health science area. It deals with a vast amount of data that each researcher is required to handle, therefore, managing the bibliography section in the SR project can be quite challenging. The aim of this paper is to describe the management process of the bibliography collection and the data in a systematic research project using an open source software known as Zotero. This study utilized a standalone Zotero obtained from www.zotero.org to manage the bibliography section and other resources. This software also allowed for collaboration amongst researchers. The approach to the data and resources management is based on a previous SR study conducted by the first author and the data sample used in this study is based on current ongoing SR studies which implements four databases provided by the co-author whilst the supervision of the first author. Total result is 2478 papers with an end process of 36

papers to be analyzed for the review. The process is divided into two main steps with a separate Zotero database for each step. The first database is specifically for collecting the search results from the four databases and removing duplicate papers. The end result of this first step is then exported into the second Zotero database, which becomes the main working area for the entire project. This two-step process is intended to keep the search results in the original state whilst keeping in mind that the main goal is to avoid losing the original data. Each collection is categorized since the first step of the SR in order to follow the multiple steps of SR process. This is to ensure that all researchers are able to keep track of the process and collaborate through the Zotero cloud storage. Using a bibliographic software is mandatory when working on SR, and the Zotero open source software has proven to be able to handle massive data in this type of research study.

[ABS-1340]

Blockchain in Education: A Study Case from Gerakan Sekolah Menyenangkan (GSM)

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Keywords: Social Movement; Fun School; Gerakan Sekolah Menyenangkan; Blockchain; Cryptocurrency; Bitcoin

Fun School Movement/Gerakan Sekolah Menyenangkan (GSM) is a grassroots social movement carried out with teachers, aimed at creating a pleasant learning culture atmosphere and make students become more critical, independent and creative in school. This movement promotes and builds the awareness of

teachers, principals and education policy makers to build schools as a pleasant place to learn science and provision of life skills so that children become a successful learners. Blockchain is a new technology that is widely used by various fields as a work concept and thought that is included in the system or framework of the system or

movement that is built. The Blockchain was originally used as a thought used in cryptocurrency, one of which was used in Bitcoin. This technology is increasingly oged by many engineers because of the ability of this technology to be able to change everyones view of a technology that is currently centralized and also very dependent on an institution. The blockchain for social movements is used as a concept to channel an idea and idea about the form of a pleasant school. The selection of blockchain as a suitable concept for social movements

is because there are similarities in the goals of this social movement. The Fun School Movement is not a social movement assisted by the government, this social movement is purely carried out by the two founders who saw their children very happy and also enjoyed studying while stepping on Primary Schools in Australia. Through these experiences the two founders wanted to apply what happened to their childrens school in Australia and of course adapted to the social conditions in Indonesia.

[ABS-829]

Microcontroller Based Hospital Bed Control

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Keywords: Decubitus; Microcontroller; Android; Bluetooth

One of the cause of paralyses is stroke that occurs because of brain blood vessel disorder. Because of it, the patients suffered from stroke must lay most of their time on a bed. Laying too long can pressure a specific area in contact with the surface of the bed leading to decubitus. To prevent this happened, the nurse changes the patients sleep position periodically. Most hospital beds have been designed to adjust the position of the patients. However, changing the bed position manually needs extra energy. The study aims to design a tool for hospital bed control

using a DC motor controlled by a microcontroller. Nurses, patients and families of the patients can change the position of the bed by using a button connected to the microcontroller. The bed controller circuit uses the button to control the bed position using a dc motor. By using this device, the patients, nurses or caregivers and the patients family can simply press the button to control the bed position according to the comfort of the patients sleeping position so as to minimize the occurrence of decubitus.

[ABS-831]

Power Transformer Loading Analysis for Improving the Substation Reliability

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Keywords: Power Transformer; Loading; Substation; Peak Load; Reliability

This paper presents the power transformer loading analysis in order to improve the reliability of a substation. The substation that was the location of the study was the 150/20 KV Kentungan Substation,

Sleman, Yogyakarta Special Region. Power transformers are the most important electrical equipment in a substation. The power transformer functions as a provider of electrical energy that has been transmitted

from the power plant to then be channeled to electricity loads. In its operational it is very important to know the capacity and capacity of power transformers in serving electric loads for decades to come, with the aim that the electric power service can take place well. Therefore, the forecasting of the power transformer is important to know in the framework of the operational planning of a

good substation. The results of the study indicate that the peak load of power transformers in the period 2014 to 2016 is still in a safe level, where the maximum peak load is 93% of the total capacity of the transformer. However, it is recommended that the power transformer capacity be planned to begin to anticipate the growth of loads in the coming years.

[ABS-1087]

A Bayesian Network for Earthquake Prediction Based on IoT System

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Keywords: Bayesian Network; Earthquake Sensor; Prediction; IoT

Yogyakarta, one of the city in Indonesia, has the most active volcano in Indonesia, namely Mount Merapi. Volcanic activity of Merapi often results in earthquakes, either weak or strong earthquakes. Those earthquakes sometime are dangerous to the community; therefore early warning system for earthquakes are very necessary. This paper presents development of earthquake sensor based on internet of things (IoT) system that equipped with a well known data mining techniques for prediction

called Bayesian network. A sequential data about earthquakes occurrence has been used to predict earthquake occurrence in the future. A cloud database is used to store real time earthquake occurrence data and an application for mobile device is developed to predict occurrence of earthquake and visualise the data. The mobile device application will trigger an alarm for the user if earthquakes are predicted frequently

[ABS-1347]

The Relationship between the Accuracy of the Antibiotic Duration and Length of Stay in Typhoid Fever

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Keywords: Typhoid Fever; Duration of Antibiotic Administration; Length of Stay

Antibiotics are the main substances that used to treat infectious diseases such as typhoid fever. Evaluation of antibiotic use is needed to reduce the occurrence of resistance. Antibiotic resistance can be fatal. Failure respond to treatment can lead to prolonged illness, increased risk of death and extend the length of stay. Besides having an impact on morbidity and mortality, antibiotic resistance also made economic and social impact. This study is to examine the relationship between the accuracy of the duration of antibiotic administration in typhoid fever and the length of stay.

Method: A Retrospective non-experimental study with cross-sectional design. Medical records were assessed the accuracy of antibiotic duration by Gyssens criteria. From 75 medical records that fulfill the inclusion criteria, 64 patients had the right duration of antibiotics. Length of stay varies from 2 days to 7 days. The most widely used single antibiotic was levofloxacin 27 (36%). The results of the chi square analysis obtained a value of $p > 0.05$. The conclusion: there is no relationship between the accuracy of the length of antibiotic administration and the length of hospital stay.

[ABS-580]

The Influence Type of Corneal Foreign Body Material to the Severity of Eye Infection

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Keywords: Corneal Foreign Body; Eye Infection

Background: A corneal foreign body is one of the main causes of blindness factor. The effects can be mild infections (keratitis) to severe (endophthalmitis) depending on the type of material. Late-stage complications can cause blindness. **Objective:** This study to determine the effect of types of corneal foreign body material on the severity of eye infection. **Method:** Non-experimental study design with analytic observational method and cross-sectional study. The sample was male and female patients (11 - 70 years old) who came to the eye clinic with a history of exposure to corneal foreign bodies of less than 8 days. The study was conducted by interviews and visual examination on

anterior segment of the eyes. Data were analyzed with Chi-square test and correlation. **Results:** There are several types of foreign body material that affect cornea; gram iron (53.3%), plant branches (16.7%), animal wings (13.3%), sand (13.3%) and food (3,4 %). Most of these types of material cause mild infection/corneal erosion (60%), keratitis infections (33.4%) and blefaritis (3.3%). The incidence of corneal ulcers, endophthalmitis and panophthalmitis was not present in this study. **Conclusion:** There were no significant differences between the types of corneal foreign body material and the severity of eye infections.

[ABS-836]

Text Mining Pre-processing Using Gata Framework and Rapidminer for Indonesian Sentiment Analysis

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Keywords: Text Mining; Pre-processing; Stemming; Indonesian Stemming; Gata Framework; Likert; FURPS

Indonesian text preprocessing is still very limited and requires tools that can help Indonesian researchers to conduct research in the field of text mining in Indonesian, especially on Twitter. Preprocessing needed for text mining processes such as deleting @ notation; Http; stop words; normalize acronym words, slang words, emoticons; and Indonesian stemming. Gataframework besides providing an OPP-based PHP framework, it also provides text mining preprocessing tools to support those needs. The results of Gataframework text mining preprocessing output can be combined with other tools, one of which is Rapidminer. Gataframework also features a web services API that can

be connected with other applications. Since 2018, many studies related to Text Mining have begun to use Gataframework as an alternative tool in the preprocessing stage. The results of the use or quality of this tool are assessed by the Likert evaluation model and the Functionality, Usability, Reliability, Performance, Supportability (FURPS) is known as a model for classifying method which has the parameters Functionality, Usability, Reality, Performance, and Supportability. Based on Gataframework users assessment of 21 respondents, the results were Functionality (87.62%), Usability (85.71%), Reality (85.71%), Performance (80.95%), and Supportability

(85.71%) while the average value of the overall parameters was 85.14 %, which means very good.

[ABS-1093]

Implementation and Configurations Open Source Enterprise Resource Planning in Purchase and Warehouse Module (A Case Study on SME)

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Keywords: Enterprise Resource Planning; Open Source; Odoo; Warehouse; SMEs

ERP (Enterprise Resource Planning) is an integrated information system to manage a company's business processes. Small and Medium Enterprise (SME) needs ERP but lack the funds necessary. Open Source System ERP (OSS ERP) becomes the choice for applying ERP by SMEs for the price and customizability. This research aims to identify the characteristics and configuration of purchase and warehouse module at PT. ANS using OSS ERP. PT ANS produces racking system and safety door selling products. In the actual business process is done semi-manually, the process of creating reports using Microsoft Excel. The problem that is often faced is the frequent delay in making reports and the stock of goods with physical raw materials is not the same. Currently, the warehouse process is still done manually and the procurement of goods has not been computerized, thus causing delays in data transmission from one part to another. To improve the purchase and warehouse process in PT ANS, a system that supports the integration of each part is needed. Data integration with

Enterprise Resource Planning (ERP) system implementation is expected to help the purchase and warehouse process to be more efficient. The selected OSS ERP system is Odoo, as it is an open source ERP application that has various business application modules. This study using RAD (Rapid Application Development) to deploy an ERP system. There are 3 main components of the RAD method, namely Requirement Planning, Process Design System, Implementation. Business Process Modeling Notation (BPMN) is used to create business process analysis and modeling so that PT ANS performance can be improved. The result shows that there was efficiency in business processes and information systems have one integrated database and work efficiency in business processes in the warehouse division. The actual business process that was originally carried out in the 100-minute business process, with the ERP system can be done to 33 minutes, more 67% efficiency.

[ABS-326]

Effect of Chitosan-Zinc Oxide Coated in PVDF Membrane; Morphology and Performance Testing

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Keywords: Membrane; Polyvinylidene Flouride; Zinc Oxide; Performance Test

PVDF membrane modification has been done by coating it using chitosan which is mixed with zinc oxide. This study was conducted to determine the effect of chitosan-zinc oxide on PVDF membrane hydrophobicity and performance. The coating has been processed by

immersing PVDF membrane into a chitosan-zinc oxide hybrid solution with a ratio chitosan: zinc oxide of 1: 0 (M1), 6: 1 (M2), 4: 1 (M3), and 2: 1 (M4). Membrane morphology characterization was carried out by FE-SEM and FTIR. Water contact angle analysis and

performance test was conducted to determine the effect of chitosan and zinc oxide
[ABS-838]

Evaluation of PHP Framework Based on Measurement Using Object Oriented Metrics with Analytic Hierarchy Process

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Keywords: Framework; PHP; Analytic Hierarchy Process (AHP); Object – Oriented; Metrics; Quality Design

The existence of various php frameworks can be an alternative choice in developing a web application. This has made the PT XYZ want to evaluate the Wisanggeni internal php framework. The aim is to measure how far the design quality of Wisanggeni framework is working. In this research an evaluation of the php framework using object oriented metrics parameters and design quality. The measurement results for object oriented metrics parameters for each framework are evaluated by

the Analytic Hierarchy Process (AHP) method to determine the quality of the best framework model design used as a reference for the development of the Wisanggeni. This study also uses a combination of PhpDepend and PhpMetrics tools to measure the value of object oriented metrics in each php framework. The final result to be achieved from this research is that each framework has one value representation of the quality of each framework

[ABS-1350]

Evaluation of Protection Coordination of Over Current Relay and Ground Fault Relay in Distribution System

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Keywords: Protection Coordination; Over Current Relay; Ground Fault Relay; Distribution System

This paper is dealing with the evaluation of protection coordination of over current relay and ground fault relay in distribution system. Protection systems that are widely used in distribution systems are over current relays (OCR) and ground fault relays (GFR). The two protection systems are tasked with protecting the distribution transformer against short circuit fault on the distribution network. Given the importance of the protection system in ensuring the continuity of electricity distribution, its performance needs to be evaluated in a certain period of time. Evaluation of the

protection system performance includes the time and current settings of the pick-up relay, whether it is in accordance with the IEEE standard. In this study, OCR and GFR performance evaluations were carried out in the Sleman distribution system, Yogyakarta, Indonesia. Relay current settings and pick-up times are evaluated using ETAP software. In this evaluation, the distributed distribution network experiences phase to ground and symmetrical three phases faults. The ETAP evaluation results show that both OCR and GFR relays still work well according to the IEEE standard.

[ABS-327]

Characteristics of Corneal Foreign Bodies, Study in Central Java, Indonesia

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Keywords: Corneal Foreign Bodies; Characteristic

Corneal foreign body is one of the main causes of blindness. The effects can be mild to severe infections. In some countries, the incidences of corneal foreign body have their own characteristic. This is due to environmental, geographical, occupational, behavioral and other factors. This study is to determine the characteristics of corneal foreign body in Indonesia. Non-experimental study design with analytic observational method with cross-sectional study was conducted. The sample was male and female more than 10 years old with a history of exposure to corneal foreign bodies less than 8 days. Data were analyzed with

univariate test. Corneal foreign bodies in 30 people (40.9 ± 1.2 yo), are more common in men (76.7%) than in women 23.3%), in the age 1-40 years old. The location of material is more common in paracentral (66.7%) on the right eye. Most of the type of material is gram iron (53.3%). Welder is the most occupational risk factor (30%) and the others were laborers, farmers, traders, housewives, builders, teachers and students. The characteristics of corneal foreign body in Indonesia are more common in men, 31-40 years old, paracentral, right eye, with gram iron material, in welder.

[ABS-328]

The Accuracy of Clinical Examination and CT Scan in Oral Cancer Metastasis Prediction

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Keywords: Oral Cancer; Neck Nodes; CT Scan

Oral cancer requires extensive excision and neck nodes management. Neck dissection can be excessive and cause postoperative morbidity. This study aims to determine whether the clinical examination and CT Scan can be a predictor of metastatic lymph nodes (pathological) of oral cancer. This study is a diagnostic test, analytic observational with cross sectional design. The population are patients with oral cancer T3-T4 / N0-N1M0 treated at Dr. Soetomo Hospital, period of

January 2015 - February 2017. There were 19 patients, male-female ratio is 2.6:1. The average age is 50.7 years (ranged 24-76). Clinical examination has an accuracy of 62.5% as a predictor of lymph nodes metastatic of oral cancer (p = 0.883). CT Scan has an accuracy of 73.9% (p = 0.018). This study concluded that CT Scan is more powerful predictor of regional metastatic oral cancer than clinical examination.

[ABS-584]

Remineralization Potential of Novamin Toothpaste After Debonding Orthodontic Bracket

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Keywords: Acid Etching; Remineralization; Fuji Ortho LC; Biofix; Novamin

Etching process in orthodontic treatment and the process of debonding orthodontic brackets often cause damage around the enamel surface. Novamin is a synthetic mineral that has a similar mineral structure contained in a tooth, so this study aims to determine the potential of Novamin as a remineralization material in terms of the content of Ca (calcium), O (Oxygen), P (Phosphor) and enamel surface. It is expected to improve enamel damage after orthodontic treatment. Twenty-five premolar teeth were divided into five groups. Group I (control), II (etching and bracket mounting with biofix), III (same as group II + Novamin), IV (etching and bracket mounting with Fuji Ortho LC/GC Japan), and V (same as group IV + Novamin). The polymerization process with LEDs was 20 seconds. All samples were

placed in artificial saliva for seven days. The bracket is removed and cleaning the remaining adhesive material. Novamin was applied for 3 minutes every 12 hours for ten days. Chemical composition was analyzed by Energy Dispersive X-Ray (EDX) analysis and enamel surface changes by Scanning Electron Microscope. There were significant differences in the content of Ca elements in groups I, II, III, and V ($p \leq 0,05$), while P was in all groups ($p \leq 0,05$). Changes to the surface of the enamel indicate the existence of open enamel prisma, pits and grooves. Conclusion: Novamin has potentially to remineralize after orthodontic brackets removal as seen from the levels of Ca and P elements, as well as the surface description of the enamel.

[ABS-329]

Presence of Mosquito Larvae in Relation with Their Breeding Site Characteristics in Endemic and Non-Endemic Areas at Special Region of Yogyakarta

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Keywords: Breeding Site; DHF; Endemic; Larvae; Mosquito

Dengue Hemorrhagic Fever (DHF) is an important problem of health concern at Special Region of Yogyakarta (DIY). This disease spread through a mosquito (Diptera: Culicidae) that infected by dengue virus. DHF can be controlled by decreasing mosquito breeding sites that play an important role of their life cycle. The aims of this research are to determine the characteristics of mosquito breeding sites and their relationship to the presence of mosquitoes in endemic and non-endemic area in the Special Region of Yogyakarta. The study was conducted in July to November 2017. Samples were obtained from 100 houses located in Sorosutan and Panjatan Village. Data

were analyzed descriptively and use Chi-Square statistical test SPSS 22. From this research, can be known that there are 45 positive larvae containers in Sorosutan Village and 14 containers in Panjatan Village. The characteristics of breeding sites like the place of container and water colour can affect larvae existence, but the container cover not related with it. The community behavior include drained water reservoirs in the last 1 week are related to larvae. However, based on the other parameter of maintaining fish in container does not increase or decrease larvae in Sorosutan or Panjatan Village.

[ABS-1353]

Effective Marketing Strategy Determination Based on Customer Clustering Using Machine Learning Technique

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Keywords: Effective Marketing Strategy; Customers Clustering; Machine Learning; RFM Method

Marketing is one of the high cost activities in product sales. Therefore, an effective marketing could encourage customers to purchase more products with reasonable cost. One of the efforts to determine effective marketing is clustering the customers and formulates correct treatment for every customer cluster. Today, most of companies have digital data including customer transaction data. Techniques to analyse digital data to discover knowledge behind the data is also developed. One of the technique in digital data analysis that receive major attention from researchers is machine learning; a technique to enable computer to do learning in analysing

the data. This study presents the process of customer clustering to determine effective marketing strategy using a machine learning technique. Customers would be analysed based on 3 data that are the last date of coming (recency/ R), purchase frequency (frequency/ F) and total money spent for product purchase (monetary/ M). Such method is well known as RFM method. Result of the study shows that the proposed machine learning could be used to cluster the customers and could be used as the basis for marketing manager to determine correct treatment for every customer clusters.

[ABS-330]

Forehead Flap Reconstruction for Eye Lid Tumor

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Keywords: Squamous Cell Carcinoma; Eye Lid Tumor; Fore Head Flap

Eye lid malignant tumor requires extensive excision and reconstruction. Radicality is the most important operative treatment. The modality to restore the defect can be vary from simple skin graft, local flap, pedicle island flap or free vascularized flap. We reported a case of male 82 y.o. suffered from left upper and lower eye lid tumor. Wide excision was taken radically up to the periosteum of lateral eye socket. The eye ball was preserved since the visual acuity still normal. The defect

wide was 10x15 cm. Lateral forehead flap reconstruction was done. Full thickness skin grafting was used to cover donor site in forehead region. The tumor was confirmed as squamous cell carcinoma, with free tumor margin incision. One month after procedure, the flap was viable, followed with eye lid reconstruction. Visual acuity function normally. Six months follow up, there is no local recurrence.

[ABS-588]

Chemopreventive Activity of Roselles Hexane Fraction Against Breast Cancer by In-Vitro and In-Silico Study (On-Going Research)

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Keywords: *Hibiscus sabdariffa*; Cytotoxic MTT; Antioxidant DPPH; Molecular Docking; T47D Breast Cancer

Breast cancer is ranked the highest percentage of the new cases and deaths in women around the world. Cancer treatments that currently exist cause side effects that are detrimental to patients, thus triggering the development of cancer treatment that comes from nature or herbal plants. Rosella (*Hibiscus sabdariffa* L.) is a plant that is known contains flavonoids which are potential as anticancer agent. This research method was experimental study. This study to analyze the Roselle n-hexane fraction as a chemopreventive agent, with an antioxidant test using the DPPH method, in-vitro cytotoxic test of T47D cancer cells line by MTT method,

and in-silico test using Vina molecular docking method. The results of the antioxidant test showed the IC50 value of 4259 ug/mL. Cytotoxic activity of the fraction on T47D breast cancer cells showed IC50 values of 331.86 ug/mL. Molecular docking results obtained a docking score that shows the binding energy of cyanidin 3-O-glucoside to EGFR and HER-2 proteins of -8.2 kcal/mol and 8.1 kcal/mol, respectively. Based on these results, it can be concluded that the Roselle n-hexane fraction has a potential as a chemopreventive agent based on molecular docking and cytotoxic activity against T47D breast cancer cells.

[ABS-844]

Analysis of Midwifery Quality Service in Primary Health Care

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Keywords: Antenatal Care; Intranatal Care; Level of Patient Satisfaction; Postnatal Care; Neonatal Care; Quality of Midwifery Services

Midwifery quality service affect to quality satisfaction level and lead to a decreasing maternal mortality rate and infant mortality rate in Indonesia. Midwifery service is mostly delivered in primary health care. Therefore it is important to analyse the quality of midwifery service. A cross sectional survey, conducted in 6 primary health care and involving 75 respondents. Two questionnaire were used to measure perceptions of midwifery quality service and quality satisfaction level. The results showed the quality of midwifery services affected the level of service satisfaction by 2.8%. The majority of respondents felt that the midwifery service they received was satisfying as many as 39 respondents

(52%). However the majority of (92%) in antenatal care the respondents stated their dissatisfaction in antenatal care service. This is caused by communication factors between midwives and patients. Overall respondents expressed satisfaction with the quality of midwifery services, but some respondents gave poor ratings, especially in communication factors. This is caused by several factors including due to personal needs, internal communication factors, and patient service factors at the primary health care. This can be seen from the many respondents who gave an not qualified response to item reliability on the variable quality of midwifery services.

[ABS-1100]

Analysis of Social Media Addiction and Feel of Being Bullied Status among Millennial Generation and iGeneration in Indonesia Population

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Keywords: Social Media Addiction; Feel of Being Bullied Status; Millennial Generation; iGeneration

Indonesia is the fourth most populous country in the world, with approximately 50% of the population classified as Millennial Generation and iGeneration which characteristically close to technology such as social media. Social media has many positive impacts on youth, but their negative impact such as addiction and bullying cannot be denied. This problem is, unfortunately, has not been much researched yet in Indonesia. We wanted to identify the correlation between social media addiction and feeling of being bullied in the two youngest generations in Indonesia. We conducted a nation-wide observational analytic study with a cross-sectional design. A total of 1403 Millennial

Generation and iGeneration respondents were collected using purposive sampling. The online questionnaire was designed to collect comprehensive information about the variables studied which are participant's demographic status, social media addiction status, and feel of being bullied. We found a significant correlation between social media addiction status and feel of being bullied ($p=0.000$). This may indicate that social media addiction is a factor related to bullying in the Millennial Generation and iGeneration. These results will provide information on the development of relevant education and information system to enhance awareness about social media addiction and bullying cases.

[ABS-1102]

Correlation Internet Addicted Disorder between Anxiety in Medical Student Muhammadiyah University of Surabaya

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Keywords: Internet Addiction; Anxiety; University Students

Internet has become a necessity for many people in this information age, especially for university students. However, the use of internet with wrong purpose and excessive frequency can cause an addiction. Internet addiction has many negative effects that might cause undesirable psychiatric symptoms, e.g. anxiety. The research aims to examine the relationship between internet addiction and anxiety among medical students in Muhammadiyah University of Surabaya. Analytic study with cross-sectional approach. Data were collected through stratified random sampling, on 130 medical students in Muhammadiyah University of Surabaya year 2016, 2017, and 2018. Internet addiction was measured

by Internet Addiction Test questionnaire and anxiety was measured by Hamilton Anxiety Rating Scale. All subjects experience internet addiction disorder; which 87.6% had mild addiction and 16 people (12.3%) had moderate addiction. The prevalence of anxiety among subjects are 114 people (87,6%) which consist of 42 people who have mild anxiety, 30 people who have moderate anxiety, and the others with severe anxiety. Chi Square test are used to analyze the relationship, which resulting $p\text{-value} = 0,399$. There is no significant relationship between internet addiction and anxiety among medical students in Muhammadiyah University of Surabaya.

[ABS-1358]

Crushing Machine to Crush Coconut Fiber as Processing Organic Fertilizer

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Keywords: Crushing Machine; Coconut Fiber; Organic Fertilizer; Blades; Performance

Abundant resource of coconut fiber in a small village in Kulon Progo, Kadigunung haven't been used before this research. Even though it can be used to become raw material organic fertilizer for agriculture that most of the population member are making a living as a farmers. But there is a problem when processing to make the fertilizer, it is the use conventional manner to crush the coconut fiber. So needed appropriate technology, namely crushing machine. The design of crushing machine uses a drive gasoline engine with the power 5.5 HP and the

spin is 2,000 rpm. The blades amount to 21 moved and 12 fixed blades. It was measured by digital tachometer and sound level meter. And the others analysis were doing by formula calculating. The results of this research involve fuel consumption, depreciation of raw coconut fiber, noise level, linear v-belt velocity, and rpm of the blade shaft. They were resulted 1,800 cc, 0.05 kg, 99.3 dB, 2π m/s, and 10,595 rpm. That can be inferred in the of this crushing machine is good performance.

[ABS-1359]

Performance Analysis of Waste Machine Plastic Bottle Moving Power 2 HP

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Keywords: Plastic Bottle Waste; Electric Motors; Counter Machines; Efficient Comparison; Performance

Garbage is now very possible to be recycled again. One way to help the recycling process is to make a plastic bottle waste counting machine, so it is expected to improve work efficiency. In this study the driver uses 2 HP power, the test material is a plastic bottle with a thickness of 0.1 mm. Then calculating the engine capacity, shrinking the results of enumeration, electrical energy, the profit of production costs, the comparison of the efficiency of the electric motor drive compared to the gasoline motor, the rotation of the blade, and linear

velocity v-belt. The results of this study are machines that are made of dimensions smaller than those on the market, but this machine can chop plastic bottles as much as 27.93 kg/ hour. The efficient comparison of the use of a plastic bottle junk drive motor that drives an electric motor compared to a petrol motor is 2.6:1. It can be concluded that the plastic bottle garbage counting machine with an electric motor is superior to a gasoline motor.

[ABS-336]

Fabrication and Characterization of Pineapple Leaf Fiber/Brass/MgO/Epoxy Hybrid Composites for Break Pads

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Keywords: Pineapple Leaf Fiber; Brass; Magnesium Oxide; Epoxy; Hybrid Composite

Pineapple leaf fiber/brass/MgO/epoxy hybrid composites has been fabricated and its tensile properties, hardness and wear rate have been investigated. Whilst the fiber is in the form of short fiber (2 mm long), the brass and MgO are particles. The total volume fraction of the fillers was kept constant at 40% with three different ratios, i.e. 5:3:2, 6:2:2 and 7:1:2. The specimens were individually casted using cold press technique. Tensile properties, hardness and wear rate were evaluated in accordance with the ASTM D 638 type IV, ASTM E10 and Ogoshi method, respectively. Their

fracture modes were evaluated by closely observed by means of their SEM photomicrographs and optical micrographs, respectively. The results show that the wear rate, hardness and elastic modulus increase with the increase of pineapple leaf fiber content. The highest wear resistance, hardness and elastic modulus were found being 3.728×10^{-8} mm²/kg, 20.41 BHN, and 407.34 MPa, respectively, at filler content ratio of 5:3:2. Besides, relatively uniform filler distribution and small amount of voids were also noted from the micrographs being observed.

[ABS-592]

Design of Hybrid Micro-hydro and Solar Power Plant for Rural Communities

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Keywords: Solar Energy; Micro-Hydro; Hybrid; Rural Communities

Electricity demands for industries, offices, and rural communities are increasing. This increase is not accompanied by the availability of electricity supply, especially in rural communities. The effort to find the new and renewable energy sources are an option that must be done immediately to overcome the problem of energy needs. Of the many renewable energy sources available, a very attractive option is micro-hydro energy and solar energy. The potential of these two renewables in Indonesia is very large. Combining solar and micro-hydro systems is a good combination for low load applications. The combination of this power plant is very suitable for areas where during the summer the river

water flow tends to decrease while the sun's heat is more reliable, and conversely in the rainy season the river water flow will increase while the sun's energy falls to its lowest level. However, there are still obstacles in the use of these energy sources, namely the cost of distribution and installation is very expensive. Therefore, portable power plants are designed in this study, so that the costs of distribution and installation can be minimized. The designed hybrid power plants have been tested in Tamantirto, Bantul, Indonesia. The test results have shown that the hybrid power plant produces an output power of 170 watts.

[ABS-1361]

CABSI Surveillance in Hemodialysis Patients: Literature Review

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Keywords: Surveillance; Bloodstream Infections; Catheter-Associated Bloodstream Infections; Hemodialysis; Patient Safety

Bloodstream infections (BSIs) are a potentially life-threatening health care-associated infection (HAI). Catheter-associated bloodstream infections (CABSIs) are the main threat to patient safety presented by suboptimal vascular access care. We conducted a literature review in knowing how CABSI Surveillance in Hemodialysis Patients. Literature review is conducted by looking for articles from 2008 to 2018 using a database from PubMed. Articles are accepted in this study if they examine surveillance infection, CABSI, BSI, and hemodialysis. Sorting articles through abstracts and free full text articles. A total of 32 articles about BSI, 20 articles included inclusion criteria. In the United Kingdom, these infections account for 10%-20% of all hospital-acquired infections. The mortality rate from CABSIs is reported to range from 12%-25%. The relative risk for CABSIs associated to the use of central vascular catheters (CVCs) is 64 times greater than to peripheral vascular catheters, presenting therefore CVCs

as the main source of CABSIs. The Centers for Disease Control and Prevention (CDC) reports that CRBSI rates have remained steady in hemodialysis patients over the last decade, with an estimated 37,000 CRBSIs occurring in 2008. Many journal mentioned that hemodialysis central venous catheter (CVC) use and they contribute to increased infection-related hospitalization, mortality, and health care costs. Risk factors for infection include catheter-dwell time, access site, multi-lumen catheters, the patient's underlying conditions, as well as catheter care practices. Collaborating with patients to develop optimal interventions that increase catheter-related education and self-efficacy cannot be overemphasized. The true incidence of BSI is not known. Information such as prevalence, duration of catheter insertion, and dressing management are insufficient because of a lack of surveillance data. Further research is still needed on surveillance of bloodstream infections.

[ABS-83]

Engineering of Making and Testing the Physical Characteristics of Analog Rice Made from Raw Cassava Flour, Corn and Taro

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Keywords: Physicochemical; Characteristics; Engineering; Taro

Paddy rice and rice have become the food culture of the people of Indonesia, so products that are developed like rice are needed by not changing food preparation at the household level. Analog rice is one of the nutritious instant food products that has successfully developed thanks to the development of science and technology. Analog rice is one solution that can be developed in overcoming the availability of food both in terms of the use and application of new food sources or for food

diversification. Analog rice is an imitation of rice made from materials such as tubers and cereals that are widely grown in Indonesia, processed, the shape is similar to paddy rice. The purpose of this study was to find the optimal mix composition of cassava flour, corn and taro to produce analog rice and to know the physicochemical properties of analog rice which could replace paddy rice. The results showed that the best analog rice had 128.4% water absorption, 12.51% water content, 71.94%

carbohydrate, 8.5% protein, 1.1% fat and 14.09% amylose content included in low amylose rice.

[ABS-85]

Whiteleg Shrimp Shell Powder (*Penaeus vannamei*) Improving Insulin Resistance and Antioxidant Level in Type 2 Diabetes Mellitus

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Keywords: Whiteleg Shrimp Shell Powder; Astaxanthin; HOMA-IR; Total Antioxdant Capacity

Whiteleg Shrimp Shell Powder (WSSP) contains astaxanthin (AST) and AST from other sources can ameliorate Type 2 Diabetes Mellitus (T2DM). The effect of WSSP on T2DM had not been explored. Research was aimed to examine and compared the effect of WSSP and AST supplement on Total Antioxidant Capacity (TAC) and Homeostatic Model Assessment-Insulin Resistance (HOMA-IR) level in T2DM rats induced by high fat diet-streptozotocin (HFD-STZ). WSSP 0.89gr/200gr/d (X1) and 1.77gr/200gr/d (X2) groups; and AST supplement 0.09mg/200gr/d (X3) groups were compared with both of T2DM rat (K1) and healthy rat (K2) groups. The treatments were administered orally for 21 days to 25

Wistar rats which each group consisted of 5 rats. HOMA-IR and TAC levels were measured by ELISA and ABTs method respectively. TAC levels were significantly increased in treatment groups than K1 group (p=0.008). The increase in TAC level of X2 group was greater than X1 group (p=0.017). HOMA IR levels were significantly lower in treatment groups than K1 group (p=0.009). X2 group had a greater decrease in HOMA IR levels compared to X1 (p=0.016). Based on the result above, it can be concluded that WSSP at dose of 0.89gr/200gr/d and 1.77gr/200gr/d ameliorates T2DM.

[ABS-853]

WiFi-Based Alcohol Monitoring and Detection

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Keywords: Alcohol; Microcontroller; LCD; Health and Halal

Processed beverage products containing alcohol flood the market. Many halal labeled drinks are abundantly available in the market, but the halal is doubted. The drinks are easily found by the consumers. For health and halal reasons, the alcohol content of these beverage products needs to be measured. Based on the problem, a tool for alcohol detection which can be monitored remotely using wifi technology was made.

This tool consisted of an alcohol sensor, a microcontroller, an LCD viewer, a modem router and an Android used for remote monitoring. By using an alcohol detection tool, the alcohol content in the drink can be directly measured. The tool can monitor remotely using Android with wifi technology and directly display alcohol levels on the LCD viewer.

[ABS-345]

Experimental Study on Flow Pattern of the Gas-Liquid Two-Phase Flow in 45o Inclined Capillary Pipe with Various Liquid Viscosity

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Keywords: Two-Phase Flow; Liquid Viscosities; Inclined Capillary Channel; Flow Patterns

The experiment on flow pattern of gas-liquid two-phase flow in 45o inclined capillary channel were carried-out. The research was conducted in 1.6 mm inner diameter glass pipe. The range of gas superficial velocity was 0.025 - 66.3 m/s, while that of liquid was 0.033 - 4.935 m/s. The gas fluid was represented by dry air, while that of liquid was glycerol-aqua solution in various percentage, i.e. 0%, 10%, 20%, and 30% indexed by W, GL10, GL20, and GL30, respectively. The addition of glycerin to the liquid phase was intended to vary the liquid viscosities. The high-speed camera was used to

capture the two-phase flow. The captured video images were then analyzed to obtain the flow pattern. As a result, it was found that both gas and liquid superficial velocities affect significantly to the two-phase flow pattern observed. Five flow patterns, namely: plug, bubbly, slug-annular, churn, and annular were observed, while the stratified flow was not obtained. On the other hand, the change of liquid viscosity affects to the shift of the transition line between flow patterns in the flow pattern map

[ABS-1114]

Analysis of CSR Implementation in Mining Company based on the Impact of Social Environment in UP. PARNO Special Region of Yogyakarta

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Keywords: Social Environmental; CSR; Negatif Impact; Respondents

There are negative impacts of social environmental impacts due to mining operations in UP. PARNO. There are some potential dangers if the social environmental impacts are not reduced and not treated properly so as to disrupt the activity of the society near the mining area. Therefore, as a responsibility of mining company in UP. PARNO, implementation of CSR (Corporate Social Responsibility) programs must be beneficial for the society and the company itself. Based on the test, this have been conducted on 48 respondents with the

statement covering the implementation of CSR and the social environmental impacts received, it will have a positive impact or even a negative impact. This test is done from testing data of each questionnaire that is CSR implementation and social environmental impact. The analysis of Implementation of CSR that has been done according to the results of the study based on the respondents are valid and reliable. This means that CSR programs that have been done by UP. PARNO already running well according to its implementation.

[ABS-91]

Influenced Hypertension and HDL on the Incidence of Kidney Failure Complication in DM Type II Patients

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Keywords: Diabetes Mellitus Type II; Kidney Failure; Hypertension; HDL

Introduction according to the international Diabetes Federation in the case of diabetes in the world 2015 ; 382 million, 2016 ; 415 million, 2017 ; 425 million, prevalence Indonesia 6.9%, North Sumatera 5.3%, and Medan 2.3%. The Objective of the research was to analyze the hypertension and HDL which influenced the incidence of kidney failure complication in DM Type II patients at RSUD dr. Pirngadi, Medan. The Method was observational analytic with case control design, the sample in the case group were 32 DM Type II patients with kidney failure complication, and in control group were 32 DM Type II patients without kidney failure complication. Each case of the subject was adjusted to the control according to age and sex. The data were analyzed by using chi square test, t-independent test,

mann-whitney test, and multiple logistic regression analysis, the total of the 64 respondent. The Result of multivariate analysis showed that hypertension OR ; 17.845, HDL OR; 7.049. The Conclusion it was also found that the factor which the most dominant influence on the incidence of kidney failure complication in DM Type II patients was hypertension at the Population Attributable Risk of 91%. The Recommended was the DM Type II patients blood pressure should be controlled by applying dieting, physical activity, and taking medicines which are in line with DM Type II patients so that their glucose content and lipid profile which influence blood pressure and forestall the risk for kidney failure complication can be controlled.

[ABS-859]

The Influence of Mackerel Flesh Consumption towards the Number of Purkinje Cell in Rat (*Rattus norvegicus*) Cerebellum Congenital Hypothyroid

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Keywords: Congenital Hypothyroid; Mackerel Fish; Omega-3; Purkinje Cells

Early detection through screening of congenital hypothyroid is not a regular government programs so that cases of congenital hypothyroid can not be managed appropriately Therefore it needs to be done the research benefits the granting of a bloated fish containing omega-3 on congenital hypothyroid as a food supplement to stimulate nerve growth especially brain development. Sample of this research pups of a white rat (*Rattus norvegicus*). 30 of rat is divided into 6 groups of 5 of each tail. Four groups induced hypothyroid on day 5 gestation until neonatus day 15, and two other groups normally. Thyroxine and mackerel were given on 21st day after birth until the 8th week. Histology and

preparations made of cells purkinje after being observed in the cerebellum. Number of Purkinje cells analyzed with One-way Anova continued multiple comparison test. The result are number of purkinje cells in the normal group, normal + mackerel, hypothyroid, hypothyroid + mackerel, hypothyroid treatment with thyroxine, thyroxine treatment with hypothyroid + mackerel as follows: 60±12, 71±16, 40±6, 64±7, 70±5, 65±20. Average number of purkinje cells in group that got mackerel significantly (p<0,05) increased compared with hypothyroid. The conclusion is supplementation mackerel fish increased the number of purkinje cells in cerebellum rat congenital hypothyroid.

[ABS-604]

Public Opinion Extraction Based on Twitter Feeds for Indonesia Elections Sentiment Analysis

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Keywords: Sentiment Analysis; Opinion Extraction; Naive Bayes; Social Media; Classification

Knowing peoples sentiments on social media, especially from Twitter, is very interesting to analyze. especially the analysis of sentiments related to presidential candidates in the 2019 election in Indonesia. This study aims to extract opinions from twitter feeds to find out the results of public sentiment in Indonesia Elections. This research using naïve Bayes method with PSO to classification twitter feeds. PSO is used in the feature selection process to find optimization values to

improve the accuracy of Naïve Bayes. there are 3 main stages of the process, i.e. preprocessing, feature extracting, and classifying. From the results of this study, a group of tweets was obtained based on positive and negative sentiments from the community towards the two presidential candidates. And the results of Naive Bayes with PSO for election sentiment analysis is 90.74%.

[ABS-349]

The Extraction of Ferulic Acid From Rice Bran Using Ultrasonic Methods and Analysis of Antioxidant Effectiveness

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Keywords: Extraction; Ferulic Acid; Phenolic; Rice Bran; Ultrasonic

Rice (*Oryza sativa*) is one of the main cereals to many people, especially in Asian countries. Rice bran, as one of the byproducts of rice dehulling, has received an increasing attention as a functional foodstuff in recent years. Ferulic Acid (FA) is one of the phenolic compounds found in plant cell walls in both free and covalently bonded forms. It has also been shown that FA has many functions like antioxidant, anti-inflammatory, antimicrobial, antiallergic, anticarcinogenic, antithrombotic, increasing sperm stability, and enzymatic activity. The objective of this study was to extract Ferulic Acid from the phenolic fraction of rice

bran oil using ultrasonic method, followed by antioxidant effectiveness analyses. Oil was extracted from rice bran using ultrasonic method in ethanol solvent. The result was analyzed for phenol yields and contents. Variables tested were the concentrations and volumes of ethanol. Antioxidant effectiveness tests were performed on the highest yields of FA. The results showed that the highest yield of 24% was achieved at ethanol concentration of 80%, ethanol volume of 200 ml, and 25 grams of rice bran. Ferulic Acid content in the phenolic fraction of rice bran oil was 10-20% with the highest Antioxidant Effectiveness of 10.71%.

[ABS-1374]

The Islamic Spiritual Service for the Improvement of Quality of Life in Elderly Hospitalized Patients

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Keywords: Islamic Spiritual Service; Quality of Life; Geriatrics

Increasing of the elderly population number has an impact on the escalation of health problems. The quality of life in the elderly also generally has an impact due to the decline in health status, vice versa. A specific approach is needed to overcome this problem. This study aims to determine whether there are differences of the elderly hospitalized patients' quality of life in PKU Muhammadiyah Gamping Hospital, Yogyakarta due to the Islamic spiritual services. This is a quasi-experimental research design with a pretest & posttest assessment. A sample of 106 elderly patients with an age range of 60-70 years was consecutively selected by

inclusion criteria for controlling the confounders. Variables were measured using the OPQOL-Brief questionnaire. Data were analyzed using the Wilcoxon test because of abnormality distribution. There was an increase of score mean of quality of life after the Islamic spiritual service by the p -value=0,000. The results of the study indicate that the potential for the Islamic spiritual services has been developed to become an effort to improve the quality of life of elderly patients to be healthier.

[ABS-351]

Air- Low Viscosity Water Two-Phase Flow Pattern in 5 Degrees Slope of the Capillary Pipe

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Keywords: Annular; Bubbly; Gas; Liquid; Superficial; Velocity

The investigation of two-phase flow in mini or capillary pipes becomes very important since it is used in various applications such as x-ray, heat exchanger, geothermal piping systems, boilers, oil, and gas. Furthermore, its application in biomedicine comprising the cardiovascular system which is blood circulation that is made up of the heart, blood vessels and the blood that circulates throughout the body. Along with the widespread application of two-phase flow, more in-depth research of two-phase flow is required by performing a variety of methods to find out its effect on characteristics of the two-phase flow and its application in biomedics. The research was carried out using experimental methods, with an inner pipe diameter of 1.6 mm and length of 130 mm. The test section with a slope of 5 degrees against the horizontal position. The working

fluid being used were air and water mixed with Glycerin at concentrations of 0%, 10%, 20%, 30% for each blend, and varying the superficial water and gas velocity in the range of $J_L = 0.033$ to 4.935 m/s and $J_G = 0.025$ to 66.3 m/s. The research was done by the method of visualization using high-speed cameras. The research found five types characteristics of flow pattern i.e.: bubbly, plug, slug annular, annular and churn. The plug flow pattern dominates the result in this study, viscosity changes effect can be seen on the bubbly and plug flows as well as on the transition flow pattern. Flow pattern formed later are mapped based on superficial velocity variation. Map of the flow pattern is also compared to the results of previous research and it has resulted the conformity.

[ABS-607]

Effect of Roselle Calyx Ethanol Fraction on Antioxidant and Cytotoxic Test Using In Vitro And In Silico Method (On-Going Research)

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Keywords: *Hibiscus sabdariffa* L.; Colon Cancer WiDr; Antioxidant; Cytotoxic; Molecular Docking; In Vitro; In Silico

The incidence of colon cancer in Indonesia reaches 12.8 per 100,000 adults and 9.5 deaths from all cancers. In the other side, colon cancer treatment has many side effects. Therefore it needs to develop colon cancer drugs combined with natural ingredients as co-chemotherapy to increase efficacy and reduce the side effects. One of them is roselle calyx (*Hibiscus Sabdariffa* L.) which contains the cyanidin-3-sambubioside (flavonoids) and derivatives which are thought to have the ability to inhibit the growth of cancer cells. This study aims to know activity of Rosella Calyx Ethanol Fraction (FEBR) based antioxidant, cytotoxic and molecular docking. The method used are antioxidant study,

cytotoxic study with MTT Assay method and in silico study with molecular docking Autodock Vina method. Antioxidant activity of FEBR showed with IC50 value was 428 ug/ml. Cytotoxic potential of FEBR measured against WiDr cell line with IC50 value was 3483 ug/ml. The ability of cyanidin-3-sambubiosida to inhibit IKK and VEGF target proteins with affinity energy was -9.6 kcal / mol and -6.7 kcal / mol using docking molecular with Autodock Vina. Based on the results can be concluded that sianidin-3-sambubioside in FEBR is less potential to be developed as co-chemopreventive in colon cancer.

[ABS-1376]

Prevalence and Characteristics of Overweight Extraordinary School Students with Disability

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Keywords: Disability; Characteristics; Prevalence

Based on the International Classification of Functioning, Disability and Health (ICF), disability is a general term for disruption, restrictions on activities and restrictions on participation. These environmental problems are limited social support and transportation that is difficult to access. There are more than one billion people with various types of disabilities. Population, i.e. 110 million (2.2%) and 190 million (3.8%) people over the age of 15, has difficulty in performing their functions. The purpose of this study is to determine the characteristics of children with disabilities and the prevalence of the incidence of disability overweight in

extraordinary school students in West Sulawesi Province. The design of this study was cross sectional with a descriptive approach. The study population was 1392. The study results of the characteristics of people with disabilities in extraordinary school students of West Sulawesi Province, namely people with disabilities based on sex, i.e. men are as much as 58.33%. The highest age group is at the age of 15-19 years old as much as 59.99%, and the highest number of disabilities types are mental disability as much as 67.96%. Percentage of incidence of overweight in West Sulawesi province extraordinary school students is 5.75%.

[ABS-353]

Heart Rate Variability and Prenatal Attachment in Pregnancy in Indonesia : A Cross-Sectional Study

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Keywords: Spiritual; Heart Rate Variability; Attachment

Attachment is a bond needed by mothers and children in parenting methods. This parenting method is an important aspect to determine the quality of cognitive and social intelligence of the children. The ratio of attachment types was the balance between secured (50%) and insecure (50%). Though, insecure attachment gives a negative impact on children. An objective of the study was to analyze the relationship between spiritual well-being and prenatal attachment in third-trimester pregnant women seen from heart rate variability side. The study applied a quantitative method with a cross-sectional time approach. Cluster sampling technique determined the places and samples of the study. Spiritual

well-being data was collected by Spiritual Well-Being Questionnaire and prenatal attachment data was collected by Indonesia version Prenatal Attachment Inventory. The conditions of spiritual well-being were also compared by heart rate variability conditions. The results of this study found spiritual well-being having a significant correlation with prenatal attachment in third-trimester pregnant women. Midwives as the pregnant women partner need to know the levels of client spiritual well-being and emphasize the importance of providing care with a spiritual approach. Midwives also need to explain the functions of daily religious activities and their relation to prenatal attachment.

[ABS-1122]

Design of Power Monitoring Systems Using Microcontroller Arduino Mega 2560 at Heavy Equipment Company

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Astra Manufacturing Polytechnic

Keywords: Arduino Mega 2560; Monitoring System; Machine Power Consumption; Current Sensor ACS712; Wifi Module ESP8266

In this paper, we design the power monitoring systems at the heavy equipment company. In a production process, the need for pressurized air supply in this company is quite large. In this case it is fulfilled by the operation of 2 compressor units. The compressor used has a working power of 90 KW, so that in its operation also requires a large electricity supply. In the list of company facilities, compressors are machines with the largest energy consumption. With regard to energy efficiency programs, the company plans to reduce energy use from each machine, especially compressors, while paying attention to existing production targets. In this research, the first step taken is by monitoring power usage. This is useful to find out whether the machine is working according to needs, or there are uses that are not to support existing production.

For example, the machine turns on when it is not working hours, or there is a machine that is not in good condition. To facilitate this work, we design a compressor power usage monitoring system based on the microcontroller Arduino Mega 2560. In this system, the data taken is the working flow of the compressor using the ACS712 current sensor, which is then processed by Arduino so that the value of power usage is obtained. Next, data is sent via the ESP8266 Wi-Fi module to the database. The output of this system is the value of work flow and compressor working power in real time, along with the total value of power usage by the compressor displayed on a website. Through the site, data can be accessed by PCs or the hand phone that connected to the companys network. The measurement results of this system have a measurement accuracy of 98.48%.

[ABS-356]

The Spatial Distribution of *Escherichia coli* in Contaminating Well Water in Diarrhea Cases

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Keywords: *Escherichia coli*; Dug Well Water; Social Environment

Diarrhea is a serious problem in developing countries. *Escherichia coli* is one of the bacteria causing diarrhea. For private well, dug well water by contaminated *Escherichia coli* should not be used for drinking. The presence of *Escherichia coli* in well water indicates the contamination of water with fecal waste. The objective of this study is to determine the spatial distribution of *Escherichia coli* which contaminates well water in household diarrhea cases based on social environmental factors in Yogyakarta City. The design of this study is a cross-sectional survey. The total samples were 302 dug well water taken from the houses of patients with diarrhea in Yogyakarta City, Indonesia. Most Probable Number methods were used to determine

the bacteria of *Escherichia coli* contaminating well water. Geographical coordinate location of dug well water contaminated by *Escherichia coli* was determined using GPS. Spatial multi-buffer analysis is used to determine the distance of the well from river, landfills, and market. The results showed that 74% of *Escherichia coli* contaminating well water that is located less than 200 meters from the nearest river. The distance between of the well water from the temporary landfills were more than 500 meters. In addition, 61% well water was found further than 500 meters from the market. The conclusion is the majority of well water nearby the river had been contaminated by *Escherichia coli*.

[ABS-1381]

The Cost Analysis and the Prediction of Complication Rate among People with Diabetes Mellitus Type 2

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Keywords: Healthcare Cost; Hospital Profit; Multiple Discriminant Analysis; National Health Security Program

The implementation of package payment system for healthcare in Indonesia, or INA CBGs, as part of the National Health Security program, has been a focus of scrutinized studies. Indeed, for any private hospital, profit has been served as the main focus in supporting its operational. On the other hand, the prevalence of non-communicable diseases such as diabetes with the wide range of possible complications has proven to be costly. Therefore, to maintain the sustainability of its service, private hospitals have to put the more efficient and effective cost management system into place, especially in the existence of INA CBGs. The objectives of this study is to predict the development of complication and the rate of medication cost among the member of JKN in one diabetes outpatient department in a hospital in Yogyakarta. The study using bivariate analysis to show

the correlation between complications and medication cost and medication, and using Multiple Discriminant Analysis to predict diabetes complications in future. The results showed that the complication rate has positively influenced the medication cost delivered by the hospital. Furthermore, the increased number of complications has led to the increased number of medication utilization which in turn has raised hospital's operational cost. The Multiple Discriminant Analysis has successfully showed the prediction of diabetes complications with accuracy rate of prediction classification of 62.2%. Therefore, it is regarded as essential to increase additional cost to cover the complication. The finding show that a more preventive measure program should be a key to prevent further complication which in turn would generate more profit.

[ABS-870]

Implementation of Dynamic Systems to Reduce Congestion in Supporting Intelligent Transportation Systems

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Keywords: Dynamic System; Intelligent Transportation System

Transportation plays a key role in peoples lives, changing views and having a big social and economic growth. In addition, technological developments are also related to social and economic growth, thus the Intelligent Transport System (ITS) has evolved rapidly towards social and economic conditions at this time. The biggest problem with the development of transportation at this time is congestion and even congestion itself has become a matter of greater concern at this time. The more vehicle growth, the more competition that is carried out by factories by promoting the vehicles they make and there are no clear rules for increasing the growth of vehicles. There are several factors that cause congestion starting from population growth in cities that

are increasing day by day, roads that are smaller than the volume of vehicles up to traffic accidents are also one of the bottlenecks themselves even the government that provides road facilities. In this study, the application of a dynamic system to model the formulation of vehicle estimation problems and propose information systems and technology strategies that can be used to support solutions to solve problems revealed according to needs. The results of this study are to create a sub-model by simulating vehicle development and congestion levels in urban areas can take a number of references from previous studies so that it can affect the decrease in congestion by increasing the efficiency and effectiveness of driving by implementing a dynamic system.

[ABS-105]

Experimental and Numerical Study of Natural Convection Heat Transfer from Elliptic Tubes in Thermally Asymmetric Cavity of Different Clearance Ratio

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Keywords: Natural Convection; Elliptic tube; Clearance Ratio; Aspect Ratio; Pitch Ratio; Thermally Asymmetric Cavity

Natural convection heat transfer in a thermally asymmetric cavity is influenced by temperature differences and distance between the heat source and cavity wall. The heat source emerged from any bluff body placed inside the cavity. This research used heated elliptic tube as the heat source inside the cavity. The three tubes are of 2.5 Aspect Ratio (AR) in vertically aligned arrangement. The cavity was thermally asymmetric because three sides of the cavity were insulated while the other side was exposed to convection with ambient air. The Clearance Ratio (CR) as the ratio between the gap from the insulated wall to the major axis

of the tubes to the space of the cavity is varied 0.4 and 0.6. while the pitch ratio is constant at 3.5 a. This study analysis the characteristics of heat transfer from the surface of the elliptical tube to the surrounding air experimentally and numerically. The result reveals that the highest heat transfer coefficient is on the tube 3 for all clearance ratio. Meanwhile the heat transfer coefficient of 0.4 CR is higher than that of 0.6 CR. The numerical solution shows the contour and streamline of the fluid flow in all conditions as the characteristic of natural transfer thermally asymmetric cavity.

[ABS-619]

Comparative Study of PLANTS and Autodock Vina for Ligand Docking in Cancer Drug Discovery

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Keywords: Molecular Modeling; Drug Discovery; Molecular Interaction; PLANTS; Autodock Vina

Pharmaceutical research has successfully incorporated a wealth of molecular modeling methods, within a variety of drug discovery programs, to study of biological and chemical systems. The integration of computational and experimental strategies has been of great value in the identification and development of novel promising compounds. Broadly used in modern drug design, molecular docking methods explore the ligand conformations adopted within the binding sites of molecular targets. This approach also estimates the ligand-receptor binding free energy by evaluating critical phenomena involved in the intermolecular recognition process. Today, as a variety of docking algorithms are available, an understanding of the advantages and limitations of each method is of fundamental importance in the development of effective strategies and the generation of relevant results. The purpose of this review is to examine current molecular docking strategies used in drug discovery and medicinal chemistry, exploring the advances in the field and the role played by the integration of structure- and ligand-based methods in cancer disease. Cancer is still a major

health problem in the world because of its high morbidity and mortality. Among the cancers that attack humans, breast cancer is the most prevalent cancer among women in the United States with 182,460 new cases (26% of cancer-fighting women) in 2008. We have performed a comparative assessment of two programs for molecular docking: PLANTS and AutoDock Vina 3.0. This was accomplished using two different studies: RMSD score and docking experiments against 6 different proteins (cyclin D1, cyclin E, p53, HER-2, EGFR, VEGF) which are specific proteins target in cancer research. The docking accuracy of the methods was judged based on the corresponding docking score. The results from experiments showed that Autodock Vina 3.0 has more appropriate than PLANTS method. A speed comparison demonstrated that Autodock Vina was faster than PLANTS among the tested docking programs. The Autodock Vina could perform all the RMSD score < 2.0 Å for 6 target proteins, and PLANTS only showed 2 of 6 that has RMSD score < 2.0 Å. We can conclude that Autodock Vina more effective than PLANTS method for molecular docking in cancer drug discovery.

[ABS-108]

Energy Balance: Performing Energy Usefulness in AISI 304 Welding

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Keywords: Energy Balance; Welding Zone; Energy Usefulness; Metal Casting Approach; Entropy State Function

There are many researches on welding efficiencies have already been conducted, but very few of them take attention on energy usefulness in workpiece welding zone. Energy usefulness profile can be used as a reference in developing a thermodynamics model to predict post welding material properties and material behavior. The aim of this study is to obtain energy usefulness in AISI 304 welding. The study utilizes finding from previous researches to analyze and calculate the amount of energy received by a workpiece

and the energy which is distributed to fusion zone, high temperature heat affected zone, low temperature heat affected zone and unaffected base metal. Metal casting theory approach is required to identify useful work process in welding. AISI 304 post welding energy usefulness profiles are then performed in an energy balance diagram. The present study result shows that energy usefulness decreases when the zone distance from the center of welding increase. The finding has a good agreement with entropy state function theory.

[ABS-109]

Identification of Off-Label Drug Indication Use in Pregnant Woman of Hospital

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Keywords: Off-Label Drug; Indication; Pregnant Woman

Pregnant women have special characteristics in the use of drugs so requiring more attention in the administration. The use of drugs outside the information listed in the leaflet or "off-label" has a risk when used by special populations such as pregnant women. This study aimed to determine the identification of off-label drug use indicated for pregnant women in hospitals. This study conducted using descriptive observational design with cross-sectional approach. The sampling in this study used retrospective method on medical records of pregnant woman of Rumah Sakit Jogja. The medical

record samples of 298 were taken using systematic random sampling technique from January to December 2016. The samples were then analyzed based on the information of drugs listed on the PIO Nas [National Drug Information Center] and related journals. The result showed that there were 2075 prescribed drugs in which there were 98 prescribed drugs (4,72%) categorized as off-label drug indication. The off-label drug indication use included misoprostol 79 (3,81%), dexamethasone 16 prescribed (0,77%), and ondansetron 3 prescribed (0,14%).

[ABS-110]

Support Vector Machine Based Method for Cavitation Detection in A Centrifugal Pump

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Keywords: Support Vector Machine (SVM); Vibration Signal; Centrifugal Pump; Cavitation; Statistical Features

The cavitation phenomena increase noise and vibration level in a centrifugal pump, which, if not properly maintain leads to catastrophic failure and total stop for the whole production process. It is important to develop a method that can detect cavitation as early as possible. Support vector machine (SVM) is one of pattern recognition techniques which requires statistical features as input for classifier modelling. However, the selection of statistical features is arbitrary, hence further investigation is needed. In this study ten statistical features are extracted from time domain vibration signal and selected using Relief Feature Selection. The

vibration signal is taken from cavitation test-rig under four different pump conditions i.e., normal condition, early, medium and full cavitation. The selected features are used as input for two types of SVM, binary and multi class, to classify the new vibration data. Feature selection process reveals that variance, RMS, and SD are the best feature to use for SVM classification. The binary SVM method shows the best plot on early cavitation with accuracy 99% where Bayesian Optimization algorithm with multi class SVM is the best combination to classify all pump conditions with overall accuracy 100%.

[ABS-111]

Effect of CaCO₃ Particle Size and Content on Impact Resistance of Kenaf/CaCO₃/Epoxy Resin Hybrid Composites

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Keywords: Kenaf; CaCO₃; Hybrid Composite; Impact Strength; SEM

Thermoplastic and thermoset polymer composites reinforced with kenaf fiber or CaCO₃ have been extensively investigated. However, the study on the combination of kenaf fiber and CaCO₃ reinforced epoxy resin is rare. This research discussed the effect of CaCO₃ particle size and the ratio of kenaf to CaCO₃ content on the impact strength of alkali-treated kenaf to CaCO₃/epoxy resin hybrid composites. 30 % of the hybrid kenaf fibers and CaCO₃ particles reinforced epoxy resin composites were fabricated by hand lay-up technique at ~ 4 MPa for 12 h. Impact test of the

composite specimens was conducted using a Charpy Impact test according to ASTM D 6110. The morphology of impact fracture surface was examined by scanning electron microscopy (SEM). The results showed that the impact strength of the hybrid composite increased with the decrease of CaCO₃ particle size, and the ratio of kenaf to CaCO₃. Interfacial bonding between the reinforcement (kenaf and CaCO₃) and epoxy resin matrix, the uniform dispersion of kenaf and CaCO₃ within the epoxy resin matrix are two crucial factors influencing the impact strength of the composite.

[ABS-624]

Information Retrieval System for Finding Article and Clause in UUD 1945 use Vector Space Model Method

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Keywords: UUD 1945; Constitution; Vector Space Model; Information Retrieval System

This study aims to find articles and verses from the 1945 Constitution (UUD 1945) using the Vector Space Model method that calculates the similarity of many documents. One document is represented by one clause from each article of the 1945 Constitution. The next step is to do pre-processing data by deleting unneeded words (Stopword) and changing into basic words (Stemmer) in Indonesian Language. Each document will be indexed to

speed up query and simplify the weighting. Weighting words in documents uses the Tf-Idf (Term Frequency-Inverse Document Frequency) algorithm by calculating the frequency of words in documents and all documents. The document search results will be presented in ranking with the largest number of scoring appearing at the top (descend sorting).

[ABS-113]

The Effect of Saddle Contact Angle to Pressure Vessel Stress Distribution

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Keywords: Pressure Vessel; Saddle; Contact Angle; Stress Distribution

Pressure vessel has a complex structure. Pressure vessel structure is designed to hold internal pressure, temperature, external load, etc. There are two types of pressure vessel, those that vertical and horizontal pressure vessel. Horizontal pressure vessel is supported by saddle that is used to hold pressure vessel weight.

Pressure vessel stress distribution is affected by saddle contact angle variations. Pressure vessel maximum stress values should be considered so the failure of structure can be decreased. This research aims to review the effect of saddle contact angle variations to stress distribution.

[ABS-625]

The Factor of Family Support towards the Success of Tuberculosis Therapy: Cohort Study

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Keywords: Family Support; Tuberculosis Therapy; Successful Therapy

Background: The World Health Organization, WHO states Tuberculosis (TB) as a global public health emergency. where Indonesia ranks 2nd in the world after India was followed by China in third place. Tuberculosis (TB) is a disease that can be cured if treatment is carried out quickly and precisely. Factors related to adherence to treatment, duration of treatment, socio-economic, nutritional status, smoking habits, and professions at risk have a correlation with the success of TB therapy. The purpose of this study was to determine whether family carrying capacity increases the success of tuberculosis (TB) therapy. **Method:** with primary data collection in

the form of filling out questionnaires by means of interviews and secondary data, namely the respondents medical record data. The respondents were 57 people who were pulmonary and extrapulmonary tuberculosis patients. **Results:** The results of the analysis showed that a good family carrying capacity increased the success of tuberculosis therapy with a value of $P = 0,000$ ($P < 0.05$) while the Relative Risk (RR) analysis obtained a value of 5.412 indicating good family support capacity could increase 5,412 times the success of tuberculosis therapy. **Conclusion:** Family Support increases the success of Tuberculosis therapy.

[ABS-881]

Correlation Internet Addicted Disorder between Prevalence of Withdrawal Symptoms in Late Childhood

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Keywords: Internet Addicted Disorder; Withdrawal Symptom; Cyber Kids

As a contemporary media, internet is the fastest growing and the quickest society changer. The internet users are not only increase in number, but also in wider scope, including the age range. Children as a part of society greatly experience this social impact, which commonly called as cyber kids. Internet Addiction Disorder risk develop 3.1 times higher during late childhood stage, which affects dopamine activities then lead to withdrawal symptoms. The research aims to investigate the extent of internet addiction during late childhood and examine the relationships to withdrawal symptom. An analytical observational study with cross sectional approach. Stratified random sampling

technique in total 170 students of Nurul Faizah Islamic Elementary School, aged 6-12 years, conducted using questionnaire, and analyse using Chi square. Vary level of internet addiction disorder among the subject (31% mild, 64.3% moderate, and 4.65 % severe). The prevalence withdrawal symptom is 77% from total subjects with internet addiction disorder. There was significant positive correlation between internet addiction disorder and withdrawal symptom. Internet addiction was present in late childhood and it has significant relationship with withdrawal symptom. Further study is needed, especially in interventions to deal with internet addiction in this specific population.

[ABS-1137]

Cost Analysis of Hemodialysis Based on Unit Cost Using ABC Method in Bantul X Hospital

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Keywords: Unit Cost; Activity Based Costing; Hemodialysis

Bantul X Hospital is one of hospital that has a hemodialysis unit that is currently in the development stage. In its development, the hemodialysis unit has not been spared by several obstacles, one of which is related to costs. Therefore, it needs to be done carefully and effectively so that the hospital continues to obtain benefits and does not lose. The results of the analysis with the Activity Based Costing method are expected to be used to manage unit costs, become a reference in tariff determination decisions and manage human resource management in the most effective way possible. The type of research is descriptive method research with a quantitative approach. The unit cost analysis method

uses the ABC (Activity Based Costing) modification method by Baker. Based on the results of calculations using the ABC method, the unit cost of single-use hemodialysis is Rp. 992.531 and unit cost of re-use hemodialysis is Rp. 834.036. Unit cost of hemodialysis using ABC method is lower than the tariff of Bantul X Hospital, which is Rp. 1,188,000 and higher than the claim of INA CBGs is Rp. 825,500. There is a negative gap between the unit cost of the single-use and re-use hemodialysis using ABC method with the claim of INA-CBGs. Therefore, the hospital needs to evaluate unit cost further for cost effectiveness.

[ABS-626]

Design and Motion Analysis of the Handcycle as Mode Transport to Easy the Accessibility of Disability Person

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Keywords: Handcycle; Disability; Frame Analysis; FEA

Handcycle is a transportation tool for individuals with lower limb disabilities. This study designed a hand cycle as a mode of transportation to facilitate the accessibility of persons with disabilities. The design of the handcycle will be designed on a prototype scale. It referred to recumbent and synchronous frame geometry types for arm crank set up to do finite element analysis

studies using Autodesk Fusion 360 software to find the value of the strength of the handcycle frame design. Frame dimensions based on anthropometric data. Designed a decent frame at 160 kg loading with a critical value of 330 MPa and became a reference for the handcycle production process.

[ABS-1138]

Evaluation Implementation of Nursing Knowledge and Skills about Basic Life Support in Management Patient of Cardiac Arrest at Panembahan Senopati Bantul Hospital

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Keywords: Basic Life Support; Knowledge; Skills

Hospitals are very complex and high-risk institutions, especially in regional and global environmental conditions that are very rapidly changing. For that medical service staff must always try to innovate and improve the performance and service system in order to achieve excellent service, one of which is in carrying out emergency actions that occur. Emergency cases that often occur are cardiac arrest cases where each hospital should have an standard operational procedur in basic life support measures. This study wanted to know the level of knowledge and skills of nurses about basic life support in management patient of cardiac arrest in Panembahan Senopati Bantul Hospital. The type of research conducted is the mix method. For the quantitative approach using descriptive observational

methods while for the qualitative approach is obtained by doing deep interviews. From 42 respondents who were given a basic life support knowledge questionnaire, they got mean 16,142 while checklist standard operational procedur of basic life support got mean 9,952, which meant nurses at Panembahan Senopati Bantul Hospital had good knowledge and skills about basic life support. Implementation that occurs is still not in accordance with established standards. The results of this study are nurses in Panembahan Senopati Bantul Hospital who have good knowledge and skills about basic life support in the management of patients with cardiac arrest. But in its application in the field it still hasnt gone well because there are gaps in the application of existing standard operation procedure.

[ABS-373]

Optimization of Mastoid CT Image Using Windows and Kernel Reconstructions

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Keywords: Window; Kernel Reconstruction; Mastoid CT; Anatomical Information

CT scan can be used to show anatomical and pathological evaluation of Mastoid bones. It uses X-ray technology and advanced computer analysis to create body cross-sectional images. This imaging modality allows the radiologist to look at different levels of the bone ridge behind the ear. In our hospital, this procedure needs to be improved. Radiographer could make optimization by adjusting windows and developing kernel to maintain the image quality. This study aimed to obtain the optimum image of Mastoid bones, using variations of window and kernel reconstruction. The study was descriptive quantitative with experimental approach. It resulted eight images of two windowing

levels (sinus and inner ear) and four kernel variations (smooth, medium, sharp, and ultra-sharp). Three radiologists evaluated the injury, bleeding and soft tissue abnormalities images. The result showed that all window settings are acceptable. Kernel reconstructions have no different anatomical image information in soft tissue, Internal Auditory Canal and External Auditory Canal. There is a difference for overall anatomical information of Mastoid bones (p value < 0.05). Highest values of mean rank are obtained from sharp and ultra-sharp. Our recommendations are using the H.20s smooth kernel for soft tissue abnormalities and H.70s sharp kernel for fracture and bleeding cases.

[ABS-374]

Lead Adsorption using Zeolite in Lubricant Waste

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Keywords: Adsorption; Lead; Used Lubricants; Waste; Zeolite

Used lubricants are one of the hazardous waste which regulated in Government Regulations on the limits of lead contained, so it is necessary to do research in reducing the lead contained. The purpose of this study is to obtain the effect of adding adsorbents to reduce lead content on used lubricants, taken from ship waste. Then regenerated by adsorption using zeolite. 200 mL of used lubricant samples that have been physically and chemically identified in the adsorption process using an adsorbent concentration variable 7.5%; 13.25%; 14.25%; 15.75%; 17.5% (b/b) with stirring speed of 150

rpm, and contact time for 60 minutes. In the research data, a regression test was performed and a regression equation was produced with y being the lead content and x number of zeolite, $y = 0.0077x^2 - 0.371x + 6.3818$, which the best results were obtained at the adsorbent number 26.5 grams (concentration 13.25 %), lead decline reached 83%. The ANOVA test results obtained F count value of 13.42, this value is greater than F Table for level of 0.05 is 4.92, it was concluded that there was a correlation between the concentration of the adsorbent and the decrease in lead content.

[ABS-630]

Improvement of Procurement Process at PT Kapal Darya through Lean Six Sigma Approach

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Keywords: Procurement Process; Lean Six Sigma; E-Procurement

PT Kapal Darya is the foremost provider of roll-on/roll-off ferry transport services in Indonesia that takes upon the responsibility of ensuring affordable sea transportation and logistics for the public throughout the archipelago. They always commit to drive an increase performance of the company and contribution to the country as well. One of the things that can affect company performance is the procurement process. Unfortunately, currently the procurement process in PT Kapal Darya still exceeds that target completion time. The delayed in the procurement process will certainly have an impact such as delay the project implementation which further increases costs, leads to poor project execution performance and delays the delivery of

benefits to the beneficiaries. Therefore, this thesis aims to analyse the problems that occur and propose solution that can improve the procurement process and increase the efficiency. The main concept that will be used is Lean Six Sigma with DMAIC framework. The improvements that can be implemented to increase the efficiency of procurement process is the use of E-Procurement application which also covers the developing of Vendor Management Systems. This solution has several benefits such as increase transparency and accountability, supports the process of monitoring, tracking and reminder, and also meet the real time access to information needs.

[ABS-1142]

Could Emotion be Measured by Computer? The Use of Emwave Biofeedback Tool to Investigate the Effect of Visual Tafakkur towards Stress

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Keywords: Visual Tafakkur; Heart Rate Variability Biofeedback; Mental Health

The objective of this study is to investigate the effect of visual tafakkur towards stress using EmWave Biofeedback tool. Previous studies reported the effect on human emotion but there are limited study investigating the visual tafakkur effect on stress. Visual activities such as seeing, watching and looking using sight sense that incorporate with remembering Allah can affect stress.

Such activities were measure using EmWave Biofeedback tool which measure heart rate variability of subjects. 30 study subjects involved were divided into treated group and controlled group. Result shows that visual tafakkur could help in reducing stress thus improving mental health.

[ABS-633]

Effectivity Study of Albumin Therapy in Various Condition of Patients

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Keywords: Effectivity; Albumin; Therapy

Albumin is the main plasma protein responsible for regulating oncotic pressure as well as to transport many kinds of hormones, drugs and other substance throughout the body. The harmful impact of hypoalbuminemia which is met in various kind of diseases has led to the importance of rationality in albumin therapy to give effectiveness in normalizing albumin level. This study aims to determine the effectiveness of albumin therapy in various condition where hypoalbuminemia occurs. This study is an observational study. Data was gained retrospectively from medical records of patients with hypoalbuminemia. The study was able to obtain 168 data of patients from two private hospital in Yogyakarta from 2016-2018

which met the inclusion criteria. Determination of effectiveness of albumin therapy was conducted by T-test analysis comparing the albumin level before and after albumin therapy. The result of the study showed that patients given albumin therapy (intravenous) were mostly diagnosed with type 2 diabetes mellitus (16.67%). The mean increase in albumin level after therapy was 0.49 mg/dL. T-test analysis revealed a significant difference on albumin level before and after albumin therapy ($p < 0.05$). Although there was a significant increase in albumin level, the clinical condition of the patient should be considered to determine the clinical effectiveness of albumin therapy.

[ABS-1146]

Lumbar Epidural Analgesia for Reducing Labor Pain and Shortening Time of Active Phase First and Second Stage of Labor

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Keywords: Analgesia; Epidural; LEA; Non LEA; Labor; Shortening Active Phase

Introduction: For most women labor causes severe pain, similar degree to that cause by complex regional pain syndromes. Although severe pain is not life threatening in labor women, but pain in labor can have neuropsychological effect. The use of lumbar epidural analgesia (LEA) in labor is becoming widespread due to its benefit in terms of pain relief. **Method:** This study was an experimental study with randomized clinical trial design and single blind observation. The study was conducted on women who have labor process at Asri Medical Center from January to June 2018. Consisting of 24 women with LEA and 24 women without LEA. In the LEA group, Levobupivacain was given 0.5% 100 mg. The duration of the active phase is measured by time in hours compared to the normal value of prolonged physiological labor and pain with VAS (Visual Analog Scale). The group received analgesia of choice at 4-cm cervical dilatation. **Result:** The two groups were comparable in terms of socio-demographic data. The

mean duration of the first and second stages of labor, respectively, were significantly shorter in the epidural group when compared with those in the non-epidural group ($[P < 0.01]$ and $[P < 0.05]$). There was no difference in the rate of cesarean delivery between them with LEA (33% [8/24]) versus non LEA (45% [11/24]), (OR=0.60; 95% CI= 0.19-1.90). The mean of shortening in the LEA group is approximately 3 hours faster than non LEA. Closed questionnaire showed that the overall experience of labor was much better (it was also better than expected) in the epidural group when compared with that in the non LEA group (80% versus 4%). Eighteen (72%) women had inadequate pain relief in the non-epidural group as compared to 2 (8%) women in the epidural group. **Conclusion:** There is a significant difference between delivery process using LEAs versus those not using LEAs for shortening the stage of the active phase and decreasing pain in labor.

[ABS-636]

The Effect of Electric Current and Time of Anodizing Process on Physical and Mechanical Properties of Aluminum Series 1xxx

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Keywords: Anodizing; Aluminum 1xxx; Current; Time; Hardness; Color Brightness

Anodizing is the process of forming a layer of aluminum oxide (alumina) which can increase hardness, wear resistance and corrosion resistance. The anodizing process is carried out on aluminum 1xxx series with a concentration of 40% solution, electric voltage 18 V, temperature 40°C to 55°C for 5, 10 and 15 minutes and current 1, 2, and 3 A. The dyeing process is applied using a solution with a concentration of 20 g / liter. The results of the anodizing process with a duration of 10 minutes immersion produce the largest thickness of the alumina layer at a current of 2 A as thick as 0.120 mm, hardness 52.1 VHN. The greater the current used, the larger the

pores formed as a result of the color on the surface getting thicker. At the current 1 A the most uniform color brightness is R 35.66%, G 181.33%, B 63%. The results of the anodizing process at 3 A currents show that the longer the dyeing time will increase the thickness of the alumina layer where the thickness of the layer is 0.060 mm for a period of 15 minutes, But will reduce the hardness value, shrink the surface pores. The hardness value is 68.16 VHN for a 5 minutes processing time to 56.07 VHN for a process time of 15 minutes. Reduction of pores produces uniform brightness with a percentage of R 27.33%, G 57.00%, B 19.33%.

[ABS-894]

Sentiment Analysis using Recurrent Neural Network

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Keywords: Sentiment Analysis; Deep Learning; RNN; LSTM

This study aims to measure the accuracy of the sentiment analysis classification model using deep learning and neural networks. This study uses the algorithm Recurrent Neural Network (RNN) and Long Short Memory Term (LSTM). No previous research has used this model to analyze sentiments written using Indonesian language so that the level of accuracy is unknown. The research began by making a classification model of sentiment analysis. Then test the model through experiments. In this study, we use two classification classifications, namely classification with three

categories (positive negative and neutral) and classification with two categories (positive and negative). Experiments are carried out using training data sets and test set data sourced from the Traveloka website. The result show that when classifying three categories (positive, negative, neutral), the model has a problem to achieve accuracy less than 85%. However, when only classifying two categories (positive and negative) the model shows outstanding results and reaches above 85%.

[ABS-384]

Lung Agenesis: An Embryological Perspective

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Keywords: Lung Agenesis; Lung Aplasia; Congenital Malformation

Lung agenesis or aplasia is an extremely rare congenital anomaly. It is estimated at 34 per million live births. The etiology of this disorder has not clearly known. Failure of development of the primitive lung bud leads is the cause of this condition. In half of these cases, it has been reported in association with other congenital defects such as congenital malformation of the cardiovascular, skeletal, gastrointestinal or genitor-urinary system. This condition is usually diagnosed during

childhood. Some patients with lung agenesis may suffer from recurrent respiratory distress, dyspnea, and lung infections. We report a case of a 1-month 28 days old male infant with right sided lung agenesis association with spina bifida as other congenital defects presented to us with recurrent severe respiratory distress. This case emphasize the importance of investigating any possibilities of others congenital abnormalities when the patient presented lung agenesis or aplasia.

[ABS-1152]

Knowledge, Information and Family Support with Pitc for Pregnant

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Keywords: PITC; AIDS; Pregnant; Counseling; Test

Indonesia HIV positive cases reported in 2017 was 10,376. The HIV and AIDS cases at the age of under 4 years indicates that there is still transmission of HIV from mother to child which is expected to continue to decline in the following year as an effort to achieve national and global goals in the framework of triple elimination (elimination of HIV, hepatitis B and syphilis) in baby. The study knowing the relationship between knowledge, information sources, family support for the behavior of PITC for pregnant women. Research method Analytical Descriptive with cross sectional approach in August 2018. Population in this study were all pregnant women who visited the Sukmajaya Depok Public Health Center. This study

using the chi square test SPSS. The results of univariate studies of 85 respondents of pregnancy as many as 58 respondents (68.2%) had good knowledge. Pregnant women who received information related to PITC examination were 44 respondents (51.8%). Pregnant women whose families supported the PITC were 49 respondents (47.6%). The results chi square statistical test obtained p-value information source of is 0.007, knowledge is 0.025 and family support is 0.004 so it means all the variable p-value <0.05. There is a relationship between Knowledge, information sources and family support for PITC behavior of pregnant women. It is expected that the Puskesmas will promote counseling about screening PITC.

[ABS-385]

The Effect of Types Adsorben on Decreasing Lead Waste Battery

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Keywords: Activated Carbon; Adsorption; Battery Waste Water; Pb; Zeolite

Waste treatment used batteries is done because it produces acidic lead in battery waste. For this reason, research is needed to reduce lead content in used battery waste. purpose of this study was to obtain effect of type adsorbent and percentage mass of the adsorbent on decrease lead. This research process , namely making imitation wastewater from used batteries, preparation adsorbents and batch adsorption processes. initial process research made waste water used batteries by immersing used battery with 4 liters water for 10days. Preparation adsorbents with physical chemical treatment on activated carbon and zeolite. After immersion process

with lead plate for 10 days adsorbent is used. batch adsorption process is carried out using 100ml used battery waste stirred at 150rpm for 1 hour with variations in type of zeolite adsorbent and activated carbon. adsorbent variables are 0%, 5%(w/v), 10%(w/v), 15%(w/v), 20%(w/v), and 25%(w/v). adsorption with zeolite decreases lead from 8.02 mg/L to 1,667 mg/L. activated carbon lead decreases from 8.02 mg/L to 0.239 mg/L. The results of this study are the best lead reduction in the type of activated carbon adsorbent with an adsorbent percentage of 25% (w/v) which decreased lead from 8.02 mg/L to 0.239 mg/L.

[ABS-1154]

Use of Failure Mode Effect Analysis Method to Reduce Medication Error in Hospitalized Patients: Literature Review

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Keywords: Failure Mode Effect Anlysis; Medication Error; Hospitalized Patient; Potential Risk; Patient Safety

Medication error is a preventable event can cause inaccurate use of the drug so that it endangers patient when the drug is in the control of health personnel and patients. Failure Mode Effect Analysis (FMEA) is a prospective method of analysis used to identify potential risks and can be implemented to improve patient safety. The research aims to identify potential and risk of failure in medication error by using Failure Mode Effect Analysis as a method of preventing and evaluating medication errors in hospitalization. literature review regarding the journal about Failure Mode Effect Analysis Method and medication error. Journal searches are accessed from Pubmed database. All journals are from abroad and in English. The results of literature review from 2009-2018 found 15 journals related to FMEA method with medication errors. From literature

review on medication errors in 2006-2018, 17 journals were found. This review shows that medication errors that often occur are medication administration, dispensing, prescribing, preparation, transcription, reconciliation errors. Failure Mode Effect Anlysis Method used to identify potential risks and can be implemented to improve patient safety. The FMEA method is based on teamwork to identify, evaluate, prevent, control the effects on risks before they have an effect on patients. From 15 journals the FMEA method can improve patient safety in terms of intravenous nutrition administration, treatment processes, laboratory results, blood transfusions and transplants. This review explains that FMEA method is useful and efficient of reducing number of risks and improving the quality of services in hospitalization.

[ABS-389]

Numerical Studies of Palm Kernel Shell Fast Pyrolysis in a Fluidized Bed Reactor

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Keywords: Palm Kernel Shell; Fast Pyrolysis; Fluidized Bed; CFD

Numerical studies of thermal decomposition of Palm Kernel Shell (PKS) have been conducted in a fluidized bed reactor under atmospheric pressure of nitrogen as fluidization gas. To investigate the effect of temperature, the pyrolysis temperature was varied in a range from 400 oC to 650 oC. Furthermore, the effect of PKS feeding rate was also studied in a range 300 g/h to 1500 g/h combined with variations of nitrogen superficial velocities. It was found that the increasing of temperature results in the greatening of conversion efficiency and non-condensable gas product yield. The

maximum liquid/tar product yield was obtained in 500 oC, namely 60.5%. The increasing of PKS feeding rate led to the reduction of conversion efficiency due to the thermal energy shortage for the decomposition process. However, the increasing of PKS feeding rate could reduce the non-condensable gas product with the insignificant change in liquid product yield. The increasing of superficial velocity of nitrogen favored the shorter of residence time resulting in the increasing of tar product yield.

[ABS-134]

A Modeling of Extended Kalman Filter for Elbow Joint Angle Estimation Based on Electromyography

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Keywords: Extended Kalman Filter; Elbow Joint Angle Estimation; EMG; Features Non- Linear

The essential problem in the estimation of a human joint angle based on electromyography (EMG) signal is the non-linearity characteristic of the EMG feature. The non-linearity of the EMG features influence the performance of the estimation. The objective of this paper is to develop an extended Kalman filter model to predict the elbow joint angle based on the EMG signal. The EMG signal is recorded from biceps muscle using disposable electrodes (Ag/AgCl). The recording of the EMG signal was conducted when the subject was instructed to perform a flexion and extension motion. In this study, a periodic and random motion were chosen to examine the proposed method. The EMG signal was

extracted using sign slope feature (SSC) to obtain the information which is related to the position of the elbow. The response of the features was plotted to get the function of observation state. The extended Kalman filter (EKF) was chosen to linearize and to estimate the elbow joint angle based on EMG features. The performance improvement from KF to EKF based method is 12.81% and 9.65% for periodic and random motion, respectively. We have demonstrated the effectiveness of the proposed method to improve the performance of the estimation, further it can be implemented to an assistive exoskeleton for elderly people or stroke patient for better live

[ABS-390]

Prediction of Non-Oil and Gas Export Development of the Republic of Indonesia Using the Backpropagation Algorithm

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Keywords: Back Propagation; Prediction; Non-Oil

Prediction of Non-Oil and Gas Export Development of the Republic of Indonesia Using the Backpropagation Algorithm. Non-oil and gas commodities are goods that are not in the form of oil and gas, such as plantations, agriculture, livestock etc. The aim of the authors are to conduct this research to predict the development of

Indonesias non-oil and gas exports from 2013 - 2018 using the backpropagation algorithm. By using this backpropagation algorithm it is execlent to do predictive tasks with a fairly low error rate. The research data was obtained from the Badan Pusat Statistik (BPS).

[ABS-902]

Effect of Time and Temperature of Storage on Protein Levels in Breast Milk: Systematic Review

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Keywords: Time; Temperature; Storage; Protein; Breast Milk

Breast milk is a quality food for babies because of its nutrient and immunity content. Proteins found in breast milk are needed to form the bodys tissues that are needed starting from the beginning of a babys life. The high percentage of working mothers who breastfeed is directly proportional to the number of babies who consume milk from dairy mothers. Storage of dairy milk at certain times and temperatures is an unavoidable activity. Three differences were obtained from the research that had been carried out, namely that the storage temperature did not affect the protein content of breast milk, reduced the level of breast milk protein and increased the protein content of breast milk. Researchers

want to do a systematic review to get relevant results through reputable journal. The research aims to find out the relevant results regarding the effect of time and storage temperature on protein levels of breast milk. Using systematic reviews through journal reviews on the effect of time and storage temperature on protein levels of breast milk. Elsevier and science direct searches are accessed in the range of 2009 to 2019. All journals are from overseas in English. Systematic review showed that protein levels of breast milk did not change significantly with respect to time and temperature of storage, both the storage temperature (refrigerator) and the temperature of pasteurization.

[ABS-647]

Expression of COX-2 and VEGF in Hepatocellular Carcinoma Using Immunohistochemistry Study in Rats Induced by DMBA

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Keywords: *Ageratum conyzoides* L.; Hepatocellular Carcinoma; DMBA; In Silico; In Vivo

Liver cancer is the second most common cause of cancer deaths worldwide. At present, there is a high prevalence of liver cancer in 22 countries, especially in East and Southeast Asia. Evidence shows that the incidence of HCC is still increasing. Treatment that has been carried out to date is chemotherapy with cytostatic drugs, radiotherapy and surgery which still have many disadvantages. Anticancer drugs work not selectively by damaging DNA in normal cells and cancer cells. Exploration of natural ingredientd can be done as ways to develop anti-cancer drugs. Bandotan Herbs (*Ageratum conyzoides* L.) has nobiletin compounds that can be used as chemopreventive agents or co-chemotherapy. Objective: This study was conducted to explore the chemopreventive activity of bandotan chloroform fraction extract against COX-2 and VEGF expression in liver cancer. Methods: Using in silico

study by molecular docking and in vivo study on Spradue dawley rats induced by DMBA. Results: Based on in silico, RMSD value were 1.122 A and 1.038 A for nobiletin compounds; 1,534 A and 1,927 A for 5-FU. The docking score obtained is -7.6 kcal/ mol (nobiletin to VEGF), -7.5 kcal/ mol (nobiletin against COX-2), -4.7 kcal/ mol (5-FU to VEGF) and -5.2 kcal/ mol (5-FU against COX-2). Based on in vivo, COX-2 and VEGF expression produced more brown color in DMBA induced group with 20 mg/kgBW compared to the control group for 5 weeks. The chemopreventive activity shows better results in the administration of 1500 mg/kgBW compared to 750 mg/kgBW. Conclusion: It can be concluded that the presence of nobiletin in bandotan herbs can be used as chemopreventive agents for liver cancer.

[ABS-903]

Comparison of Data Mining Algorithm: PSO-KNN, PSO-RF, and PSO-DT to Measure Attack Detection Accuracy Levels on Intrusion Detection System

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Keywords: Intrusion Detection System; Particle Swarm Optimization; K-Nearest Neighbors; Random Forest; Decision Tree

Nowadays computer networks are widely used to exchange important and confidential data information between servers to computer or cellular devices. Access to user control and use of software or hardware as a firewall often experience security problems. Unauthorized access to information through computer

networks continues to occur and tends to increase. This study examines the attack detection mechanism by using three data mining algorithms based on particle swarm optimization (PSO), namely PSO-K Nearest Neighbor, PSO-Random Forest, and PSO-Decision Tree in the Canadian Institute for Cybersecurity Dataset

(CICIDS2017). The initial experiment showed that the approach using the PSO-RF method was able to produce the highest accuracy of attack detection. Accuracy values generated using the PSO-RF algorithm with a combination of number of trees and maximal depth = 20 in the CICIDS2017 dataset are intact higher than other

proposed algorithms. The highest accuracy of attack detection in the CICIDS2017 dataset is intact, which is 99.76%. In the CICIDS2017 dataset 50% Benign and 50% Attack it turns out that the PSO-RF algorithm with a combination of number of trees and maximal depth = 20 also gets the highest accuracy value of 99.67%.

[ABS-392]

Sea Cucumber as a Promising Supplement in Increasing Bone Health

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Keywords: Susu Sea Cucumber; Gosok Sea Cucumber; Gamat Sea Cucumber; Packaged Milk; Bones Health; Recommended Dietary Allowance

Nutrition is an important factor in maintaining bone health, such as calcium, magnesium, phosphorus, protein, and iron. Sea cucumber is one of sea creatures that has plenty of nutrition which is for the body. The research aims to compare the nutrition of *Susu* sea cucumber, *Gosok* sea cucumber, *Gamat* sea cucumber, and packaged milk so they can be used as promising source in bone health. The in vitro test using three samples of sea cucumber and three different kinds of packaged milk for kids. The test was performed to five nutritions e.g. calcium, magnesium, phosphor, protein, and iron. The analysis results used independent sample test methode and anova test. Sea cucumbers can meet the

number of daily nutritional needs. Calcium in sea cucumbers is higher than that of milk (95% CI: - 1969.85354 - 4094.26021). Its phosphorus is higher than that in milk (95% CI: -224.68925). Its magnesium is higher than that in milk (95% CI: 1499.67724 - 3243.20276). Its protein is higher than that in milk (95% CI: 18.71876 - 67.70790). Its iron is higher than that in milk (95% CI: 25.08204 - 54.45796). The nutrition in sea cucumber is greater than that in packaged milk. *Susu* sea cucumber is better than that in the other two types. Sea cucumber could be used as alternative source for bone health..

[ABS-137]

Smart Smoking Area based on Microcontroller

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Keywords: Cigarette Smoke; Smart Smoking Area; Microcontroller; Smoke Sensor

Cigarette smoke is very dangerous for both active and passive smokers who smoke inside a room because nicotine from cigarette smoke can stick on the wall or in the furniture and produce carcinogenic substances when reacting with air. The carcinogen chemicals in cigarettes are more dangerous when cigarette smoke is trapped in a limited space. An exhaust fan is usually used in a special room for smokers that serves to remove cigarette

smoke without exchanging air in it. A smart smoking room tool specifically for smokers was made to answer the problem. The room used an in and out exhaust fan ventilator. This fan ventilator rotated based on the quantity of carbon monoxide (CO) gas in the room. Arduino Uno was used to control of the input voltage level in the fan ventilator. The result showed that by using the tool the cigarette smoke in the room can be

controlled effectively.

[ABS-650]

Patient Satisfaction toward Doctors, Nurses and Pharmacists

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Keywords: Patient Satisfaction; Doctor; Nurse; Pharmacist; Caring

In the patient center care era, patient satisfaction is the main focus in delivering health service. Every health care provider should give the best services to patient based on their role and responsibility. The aim of this study is to know patient satisfaction among health care provider such as doctors, nurses and pharmacists. This study is a descriptive analytic study with cross sectional approach. Sampling method is purposive with criterion reference. Validated questionnaires contain 11 items of patient satisfaction toward doctors, nurses and pharmacists distributed to 66 patients. Response rate is 97 % doctors, 92 % nurses and 89 % pharmacists. Data analysis using descriptive analysis method. This result study revealed patient satisfaction toward doctors,

nurses, and pharmacists is 98.4 %, 99.1 %, and 96.6 % respectively. Patient dissatisfaction toward doctor related to the doctor ability in informing patient disease and complication. Patient dissatisfaction to nurse related to the nurse ability in giving guidance for exploration and prevention to patient disease, also team work with other health care profession. Patient dissatisfaction to pharmacist related to the pharmacist ability in informing clearly information about drugs, effect and side effect. In conclusion, patients are satisfied toward doctors, nurses and pharmacists services but there are few important notes need to be improved by doctors, nurses and pharmacists in delivering care services.

[ABS-395]

Crack Propagation Characteristic of Welded and Unwelded AA5083 H116 Materials Under Static Loading in an Environment Containing 3.5 WT% NaCl

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Keywords: Crack Propagation, AA5083 H116, ER 5356, MIG Welding, NaCl Environment

An ocean toll has been built in Indonesia. Thus, it is needed many ships to fulfill this programs. The marine ships are operated on sodium chloride (NaCl) environment, so that the ship materials have to be able to withstand the environments. The purpose of this study is to characterize the crack propagation of AA5083H116 and ER5356 electrode-welded materials under static loading in an environment containing 3.5 wt% of NaCl. This study was started with construction of the bending test equipment in accordance with the Brown and Beachem and ASTM E 1681. The IZOD notched specimens used in this test were prepared using electrical discharge machining (EDM) according to the ASTM E-23. The test was carried out at constant loading of 40 N

with time variations. During the loading, the specimens were immersed in a 3.5 wt% of NaCl environment. The deflections and times during loading were then recorded and finally the specimens were fractured using liquid nitrogen. The crack lengths were measured by means of optical microscope in order to characterize the crack propagation vs stress intensity factor. The fracture surfaces of the specimens were examined using SEM-EDS to characterize their fractography and chemical elements. The results show that the crack propagation of welded materials of 10 mm/s speed travel was lower than the other and the fracture surface indicates intergranular fracture, while the chemical elements shows there are of Mg, Na, Cl elements on the fracture surface.

[ABS-397]

Analysis of Application Naive Bayes Algorithm and Decision Tree in Predicting Student Readiness in Facing National Exams

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Keywords: Student; National Examination; Naive Bayes; Decision Tree

Trial is the evaluation phase facing the National Examination indeed, readiness in the exam is very important to be done by students in grade 3, testing the practice of the final exam for students in grade 3 will take the national examination, namely, schools, teacher guidance, and counseling have important roles in providing services to students. Trial services prior to student national exams require special professional handling, because they involve the success of students in national examinations. Errors in determining the readiness of students for national examinations can be a negative influence on the process and results of the students National Examination itself. After comparison of the Naive Bayes algorithm and the Decision Tree, the prediction results are predicted to predict the readiness

of students to face the national exam. It is proven that the naive bayes algorithm has an accuracy value of 82.18% and the AUC value of -0.871 is included in the fair classification, while the Decision Tree algorithm has an accuracy of 73.45% and the AUC value of 0.696 belongs to poor classification. From these results it can be concluded that the naive bayes algorithm has a higher accuracy compared to the Decision Tree algorithm, it can be seen the difference in accuracy between naive bayes while the difference between naive bayes and the Decision Tree is 8.73%. Thus the naive bayes algorithm can predict the readiness of students to face the national exam better.

[ABS-653]

Heart Rate and Body Temperature Monitoring based on Android Operating System

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Keywords: Heart Rate; Temperature; Arduino Pro Mini; Android; Bluetooth

The heart is a vital human organ. Heart monitoring is needed to maintain health. At present, the device used to measure heart rate is a stethoscope. The body's health can also be indicated by body temperature. The instrument for measuring body temperature is a thermometer. However, it is manual and involves humans in the measurement that may lead to measurement errors. To reduce measurement errors the result of the heart rate and body temperature monitoring was displayed on android and the web using Bluetooth HC-06 communication.

This device also used the MLX90614 pulse sensor and infrared sensor connected to Arduino Pro Mini and Android Studio. Pulse sensor will detect heart rate, and infrared signal will detect body temperature. The sensor readings are sent to Arduino to be processed and it produces an output according to the conditions measured. The results of measurements are displayed on the Android interface via Bluetooth communication. The data are stored in a database and displayed on the application in a graphical form.

[ABS-143]

The Influence of Injection Speed and Processing Temperature on the Properties of Molded Parts

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Keywords: Injection Speed; Melt Temperature; Mold Temperature

Injection molding is the most important process to produce plastic parts due to its ability to manufacture complex geometry of product in a single stage with high levels of reproducibility. Because of its high degree of automation, this process is also suitable for mass production purpose. The influence of injection speed, melt temperature and mold temperature on the properties of plastic product were observed in this study. The

targeted properties were pressure profile, part weight and part shrinkage. The results show that the longitudinal shrinkage of the part could be decreased by increasing injection speed and melt temperature. The part weight was slightly affected by mold temperature and melt temperature, the maximum weight was obtained by low mold temperature and high melt temperature

[ABS-144]

An Overview of the Use of Carbamazepine at PKU Muhammadiyah Hospital Yogyakarta

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Keywords: Carbamazepine; PKU Muhammadiyah Yogyakarta Hospital; Diagnosis

Carbamazepine is the first anticonvulsant that researched in the trigeminal neuralgia. Carbamazepine is often used for indications other than epilepsy. In Indonesia, carbamazepine registered for prophylaxis for lithium-responsive manic depressive disease, antiepilepsy, epilepsy of all types (except petit mal) and trigeminal neuralgia. This research aims to describe the use of carbamazepine at PKU Muhammadiyah Hospital Yogyakarta. This study is an observational study with retrospective data collection. The method used is cross-sectional. The data were taken from medical records of patients at PKU Muhammadiyah Yogyakarta Hospital who received carbamazepine during 2014. The use of carbamazepine at PKU Muhammadiyah Yogyakarta Hospital during 2014 were 494 prescriptions given to 117 patients. The physician who most prescribe

carbamazepine is a neurologist (63.04%). The most appropriate use of carbamazepine in accordance that approved by The National Agency for Drugs and Foods Controls of Republic of Indonesia (NA-DFC) was for epilepsy (34.19%), followed by trigeminal neuralgia (6.84%), and bipolar (4.27%). The most off-label use is in cases of stroke (7.69%), followed by diabetic neuropathic pain, and herniated nucleus pulposus, cephalgia neuropathy with the same percentage (3.42%). Evidence found in off-label use of carbamazepine was in diabetic neuropathic pain and neuropathic pain post-stroke (24.53%). The use of carbamazepine at PKU Muhammadiyah Yogyakarta hospital is on-label, and some off-label. The off-label use of carbamazepine 24.53% has strong evidence, while some use has lack to scientific support or no evidence support.

[ABS-145]

The Effect of Operating Conditions on Curcumin Extracted from Turmeric by Hydrothermal Extraction

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Keywords: Extraction; Hydrothermal; Turmeric; Temperature; Solid Liquid

Turmeric has a bioactive compound namely curcuminoid. It has many pharmacology effects such as anticancer, antidiabetic, antioxidant, hypolipidemic, anti-inflammatory, antimicrobial, antifertility, anti-venom, anti-coagulant, anti-HIV hepatoprotective, nephroprotective, and anticoagulant properties. To increase the economic value of turmeric, it is necessary to develop a hydrothermal extraction process of turmeric's active compound. The advantages of hydrothermal extraction were inexpensive, abundant availability, high purity, non toxic, and easy to handle. This research aims to study the effect of operating condition: temperature (130-150°C), time (10-40 minutes) and solid:liquid ratio (1:10 and 1:12) on the

bioactive compounds of turmeric extracted from hydrothermal extraction process. Generally, high extraction yield was obtained at higher extraction temperature (140 and 150°C). Under these conditions, with a lower solid: liquid ratio (1:10), high concentration of curcumin is produced. Further, a higher solid: liquid ratio will likely produce the opposite result, except when it operate at low extraction temperature. The high temperature of the pressurized liquid water can reduce the viscosity and surface tension of water so it will increase the diffusion rates and absorption. The higher the solid:liquid ratio, the greater the different concentration between interior and exterior cell, which promote the high efficiency of diffusion process.

[ABS-401]

Diagnostic Test of Chest Radiography on Fungal Pneumoniae

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Keywords: Fungal Pneumoniae; Sensitivity; Specificity; Chest Radiography; Sputum Fungal Culture

Fungal pneumoniae is lung infection caused by fungi in which clinical manifestations are not typical, even asymptomatic. Fungal pneumonia prevalences are 68.3% in both lung tuberculosis and non-tuberculosis. Fungal pneumoniae is often undiagnosed early but later or late diagnosed and it make fails or not optimal treatment. Clinical manifestation and radiograph Fungal pneumoniae are not specific. The aim of this study is to know sensitivity and spesificity of chest radiograph on Fungal pneumoniae. Fifty five suspected Fungal pneumoniae patients are examined using the chest

radiograph (homogeneous round or infiltrate presentation, cavity, compaction of hilum lymphonody in the form of evenly calcified miliary lesions, abscess images) and sputum fungal culture to determine sensitivity and spesificity using Diagnostic test. Positive fungal culture are 21,8% smaller than Negative fungal culture (78.2%). The sensitivity value is 83.3% and a spesificity value is 25.6%. In conclusion chest radiograph can be used as a screening examination in patients with suspected Fungal pneumoniae, However, it cannot be used as a screening for healthy patients

which showed a negative fungal culture while the patients are suspected Fungal pneumoniae.
[ABS-402]

The Correlation between Hematocrit as Early Detection on Dengue Hemorrhagic Fever (DHF) and Dengue Shock Syndrome (DSS) in Children

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Keywords: Hematocrit; DHF; DSS

Dengue Shock Syndrome (DSS) is a severe manifestation of Dengue Hemorrhagic Fever (DHF) and affects more children and young adults. The susceptible age toward DSS is 5-15 years, due to an imperfect immune system. DHF patients with manifestations of DSS have propensity that can affect the platelet and hematocrit values as an initial laboratory parameter. This study was intended to find out the most effective platelet and hematocrit blood parameters and to find the relationship between platelet values and hematocrit on the incidence of DHF in Wirosaban City Hospital Yogyakarta in the period of March 2015 to July 2016. The data used were secondary data from medical records of pediatric patients aged 5-15 years. The research

method used was to determine the correlation between platelet values and hematocrit on the incidence of DHF and DSS in children. The data analysis applied chi-square to determine the relationship between platelet values and hematocrit on the incidence of DHF and DSS in children. In this study, the number of samples that fulfilled the inclusion and exclusion criteria in the hematocrit examination were 77 people. The result of the chi-square test analysis on hematocrit examination is 277 which means $p > 0.05$. It shows that the data have insignificant results. The results of the correlation $r = 0.079$ indicate that the correlation strength of the data is very weak. In this study the increase in hematocrit is one of the parameters to detect DHF with propensity to DSS.

[ABS-1170]

Correlation between Age and Dental Arch Dimension of Javanese Indonesian Children in Good Nutritional Status

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Keywords: Dental Arch Length; Dental Arch Width; Javanese Children

Dental arch size will increase with age, due to the eruption of permanent teeth. It is also affected by various factors such as ethnicity, nutrition, systemic disease, hormonal factors, and gender. The aim of this study was to assess the correlation between age and dental arch dimension of Javanese Indonesian children in good nutritional status. This was an observational analytic with a cross-sectional design. The subject of this study was 66 children aged 8 to 10 years, in normal dento-skeletal relationship. These subjects were grouping based on the age. Each group consisted of 22 pairs of

dental study model, male and female. Anterior and posterior dental arch length and width were taken by measure of intercanine and intermolar by digital sliding calipers. The Pearson's correlation test was used to analyze the measurement of dental arch length to the age. The result showed that there was significant correlations between age and dental arch lengths ($p=0.01$, $r=0.310$ for anterior dental arch length; $p=0.043$, $r=0.249$ for posterior dental arch length), but there wasn't a significant correlation between age and dental arch width. Conclusion : there are some correlation between

age and dental arch length of 8 - 10 year old Javanese children in good nutritional status which are moderate

correlation with anterior dental arch length and poor correlation with posterior dental arch length.

[ABS-147]

The Identification of Potential Drug-drug Interactions and the Factors Influencing the Interactions of the Coronary Heart Disease Patients Hospitalizing in Rumah Sakit Jogja Period of 2014-2017

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Keywords: Potential Drug Interaction; Coronary Heart Disease

The number of patients diagnosed with Coronary Heart Disease is at a quite high position in Indonesia, and it increases in each year. Various studies have shown that patients with cardiovascular disease are at risk of suffering from drug interactions. Drug interactions may affect the increase of mortality and morbidity in patients. The purpose of this research is to know the description of the types of potential drug-drug interactions and to evaluate the relationship among the number of drug interaction, the number of drugs consumed, the diagnosis number and how long of CHD inpatients treated in Rumah Sakit Umum Jogja (Jogja Hospital). This study is descriptive research with retrospective data collection method using a cross-sectional design from 91 medical record data of CHD inpatients in Rumah Sakit Umum Jogja in the period of 2014 - 2017. The data analysis uses the spearman test of the SPSS program.

The result from 91 samples included in the inclusion criteria is that the number of potential drug interactions is fairly high that is as many as 151 kinds of events. The most frequent mechanism pattern is pharmacodynamics (50.33%). The pattern of potential drug interaction based on the biggest onset was onset delay (83.44%). The highest level of the potential interactions is moderate severity (35.10%). The most documentation is unlikely (35.10%), and the highest significance level is the level of significance 1 (25.17%). This study showed a correlation between the number of potential interactions and the number of drugs ($r = 0.496$, $p = 0,000$). There was no correlation among the number of potential interactions, the number of diagnoses ($r = 0.099$, $p = 0.350$) and how long is the hospitalization ($r = 0.115$; $p = 0.276$).

[ABS-404]

Effect of *Aloe vera* Gel Extract to the Physicochemical Properties and Effectiveness of Burn Cream Formulation

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Keywords: Aloe Chinensis Baker; Cream Extract; Burns; Skin Epidermis

Aloe chinensis Baker is commonly cultivated in Indonesia especially in Pontianak and Bogor. *Aloe vera* gel contains various anti-inflammatory compounds. The objectives of this study are to determine the effects of *Aloe vera* gel extract additions to the formulations of burn cream and to obtain the best formulation in healing burn wounds on outer epidermis through testing on white mice. *Aloe vera* gel extract was prepared with a rotary evaporator for 90 minutes at 40 °C and 110 mBar. The basic formulation of the burn cream included oil phase

and water phase. There were six concentrations of *Aloe vera* gel extract added to the above burn cream at 0%, 2.5%, 5%, 7.5%, 10% and 12.5%. The resulting formulations produced pHs that were within the acceptable range of skin physiology (4-8). The viscosities were in good consistencies that were easily applied on skin without drips. They also exhibited fineness values of 9-10 μ , refractive indices ranging from 51.5 to 78.3, and opaque color of milky white. Biological experiments showed that burn cream sample

with *Aloe vera* gel extract at 5% concentration to be the fastest during 20-day trials.
most effective by healing 2nd degree burn wounds the

[ABS-1430]

Motivating Cessation of Cigarette Smoking through an online-based platform; a Social Media Self-Help Group

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Keywords: Online Self-Help Group; Smoking Cessation; Social Media; Facebook; Motivation

Cigarette smoking is a global health issue and policy concern adversely influencing the health status of its consumers and others associated with fumes of cigarette smoke. This is a growing problem throughout Indonesia, especially in Yogyakarta, as the number of active smokers among adolescents aged above 10 years old reached 21, 2 % in 2013. This study examines the outcomes of an online self-help group (SHG) of students at a private high school in Yogyakarta, in Central Java, Indonesia. The social media platform, Facebook, was the main medium used to facilitate interaction and exchange concerns among respondents in their efforts to motivate cessation of cigarette smoking among fellow students. A quasi-experimental study approach was used with a pre-test and post-test control group using non-probability purposive sampling method. Thirty-two students participated in the study divided into either a control or experimental group. Using the Facebook platform, the experimental group received online self-help twice a week over the course of almost three weeks from 20 April to 7 May 2015, involving online discussion and assignments. Data were collected by using the valid

($r=0,666$) and reliable ($r=0,846$) Richmond Test motivation questionnaire. Analysis of the data was undertaken using the Wilcoxon test and the Mann-Whitney test. The intensity of use of an online SHG among respondents was 50% of the total time they should involved in the program. Following the intervention, there was no significant improvement of motivation among the experimental group ($p>0,05$, $t=0,527$). Similarly, after the intervention, there was no significant improvement in motivation between the control group and the experimental group ($p>0,05$, $t=0,058$). In terms of gaining and improving motivation to quit smoking among high school students, the study found participants in the online SHG were not as effective compared with those who did not take the program in terms of changing the respondents' behavior. This finding might be attributable to the low participation level of respondents. Further research is required with higher participation of research subjects to develop more interactive and longer-term interventions. This will help facilitate cost-effective social media-based smoking cessation campaigns.

[ABS-919]

Influence of Leadership, Organizational Commitment, Work Satisfaction, on Nurse Work Performance in KRT Setjonegoro Wonosobo Hospital

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Keywords: Leadership; Organizational Commitment; Job Satisfaction; Performance; Nurse

Nurses are the largest human resources that have an important role in health services in hospitals. The challenge that hospitals facing is how to achieve maximum nurse performance. The realization of nurses, performance is influenced by leadership. Nurse, performance can also be achieved by their commitment

to the organization. Nurse, performance can also be achieved if the nurse has satisfaction with their work. The research aims to find out the influence of leadership on the work performance of nurses in RSUD KRT Setjonegoro Wonosobo. Knowing the influence of organizational commitment on the work performance of

nurses in RSUD KRT Setjonegoro Wonosobo. Knowing the effect of job satisfaction on the work performance of nurses in RSUD KRT Setjonegoro Wonosobo. This study is inferential analytic research with a cross sectional approach. The study population was nurses in the RSUD KRT Setjonegoro Wonosobo. The sampling technique in this study was purposive sampling with a total sample of 56 people. Data was collected using a questionnaire. Data analysis used multiple regression analysis. Leadership has a significant effect on the performance of nurses in RSUD KRT Setjonegoro

Wonosobo ($p = 0.039$). Organizational commitment has a significant effect on the performance of nurses in RSUD KRT Setjonegoro Wonosobo ($p = 0.018$). Job satisfaction has a significant effect on the performance of nurses in RSUD KRT Setjonegoro Wonosobo ($p = 0.026$). Leadership, organizational commitment and job satisfaction have a significant effect on the performance of nurses in RSUD KRT Setjonegoro Wonosobo ($p = 0,000$). Leadership, organizational commitment and job satisfaction have influence in work performance of nurses in KRT Setjonegoro Hospital, Wonosobo.

[ABS-1431]

The Role of Dentists in Assisting Child Patients with Ameloblastoma

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UMY

Keywords: Assisting Child Patients, Ameloblastoma; Dentistry

Ameloblastoma is a rare form of tumor that typically originates from the jaw bone. This tumor develops from the cells whose original purpose was to form teeth enamel, the outer surface that protects teeth. Ameloblastoma can cause pain and swelling as well as change the structure of the patients face. If left untreated for a long period of time, the tumor can become malignant and spread to the patients lymph glands. To this day, scientists remain undecided of the true cause of ameloblastoma or why certain people have a higher risk of developing this tumor. However, there are a few circumstances that could increase the risks of developing

ameloblastoma such as if the patient had experienced a jaw injury or a mouth infection at one point in their life. A diagnosis should be made based on the results of radiological examination and tumor biopsy. A possible means of treatment for the patient is surgical action to remove the tumor. If the tumor has already spread to other body parts, then the patient must undergo radiation therapy once the surgery has been conducted. This case report explains what a dentist as a general practitioner can do if coming across a case such as this and what future steps they must undertake.

[ABS-920]

Comparison of Customer Profiling for Precision Marketing Using RFM Method, K-Means Algorithm, Decision Tree and K-Nearest Neighbor

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Keywords: Precision Marketing; Customer Profiling; RFM (Recency, Frequency, Monetary); K-Means Algorithm; Decision Tree Algorithm, K Nearest Neighbor Algorithm

Precision marketing is the company's ability to offer products specifically made to customers. This decision can give the company the ability to attract customers to always buy continuously. This study presents a trend model for accurately predicting monthly supply quantities / The method used in the first stage is the RFM (Recency, Frequency, Monetary) method for selecting attributes to group customers into different groups. The output of the first stage is clustered using the K-Means

Algorithm. The output of clustering is then classified using the Decision Tree and compared with the K Nearest Neighbor method. The dataset that is processed is sales data from Syfamart As-Syifa Boarding School in Subang with 351,158 rows of data. The clustering process produces 4 optimal clusters. The four clusters are then classified using the Decision Tree algorithm to determine the potential and non-potential characteristics of each customer.

[ABS-1432]

The Role of Characteristic of Education Hospital in Achievement of Doctor Competency in Universitas Muhammadiyah Yogyakarta

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Keywords: Medical Competency; DREEM; Education Hospital

Professional medical education requires a teaching hospital with a specific learning environment in order to be able to meet the competency achievement of students. This study aims to determine the role of hospitals in achieving competence. The cross-sectional study was carried out with the subjects of the medical profession Universitas Muhammadiyah Yogyakarta students who had completed the national board test in 2018. The characteristics of hospital were measured by DREEM questioner, while the achievement of competencies was based on the scores of CBT and OSCE national board. The Spearman correlation analysis was conducted to determine the relationship between the characteristics of the hospital and achievement of competence. The results showed a mean DREEM 134, CBT 80.12 and OSCE 79.76. The correlation analysis showed no relationship

between the characteristics of hospitals with achievement of competence ($p = 0.96$). The value of the characteristic components of the hospital is the learning process 3.3 (more than expected), 3.3 lecturers (giving lectures that are very well structured), learning environment 3.2 (generally good), social environment 2.9 (not bad) and academic ability of students 3.3 (confident). The results of the study can be used by the study program leadership as a consideration to choose a hospital that is still used as a place of education. In addition, the results of the study can be used as material for the revision of the medical profession curriculum, by strengthening the role of students and lecturers in the education process. This research supports an evidence-based education process.

[ABS-153]

Design of Bedside Monitor based on Microcontrol

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Keywords: Heart Signal; Heart Rate; Temperature; Respiration; SPO2; Bedside Monitor

A Bedside monitor is an equipment used to monitor patients condition through some parameters that needs sustainable monitoring so that the patients condition is

still monitored. Generally, there are several parameters in a Bedside monitor, i.e. Heart signal, Heart rate, respiration, body temperature, non-invasive blood

pressure (NIBP), and SPO2. Heart signals can be used to detect patients heart condition such as: whether there is a heart attack or not, whether the heart is defected or not, whether the heart beat is normal or not, and whether the heart has received blood with sufficient oxygen. To help medical staffs and peramedics in hospitals in monitoring patients heart, previous research has been done entitled Design of Cardiograph Machine Based on Atmega Microcontrol (Sience & Irianto, 2016). However, it still has weaknesses. One of them is that the equipment can only monitor point to point heart signals, meaning that one ECG is only used to monitor one patient (not applying multipoint to point). Further, it is completed by creating Design of heart signal based on telemetry (Irianto, 2017). In the research, there are several ECG machines that function as monitor heart signal only. This research is development of previous research that is Design of bedside monitor based on microcontoller can be monitor 5 parameter such as Heart signal, Heart rate, Temperature, Respiration and SPO2. The design of this research applies quasi experimental design. The free variable is ECG phantom or human, and the dependent

variable is bedside monitor. The research instruments are calibration equipments of ECG signal, temperature, and respiration. The result of heart signal lead 2 is not differened with the standard and the result of heart rate lead has uncertainty (Ua) 0 for Lead 2; which is still under the tolerance number (0,5). The result of temperature measurement of 5 samples with 5 measurements is 3 samples has deviation standard and uncertainty 0 (zero), whereas 2 samples has uncertainty 0,76 (higher than 0,5). This condition is influenced by patients movements, so the sensor attached on the patients body does not fit with the standard installation. The result of respiration measurement has accuracy 98 percentage, whereas the result of SPO2 after compared with standard calculation has deviation standard and uncertainty under 5 percentage that is STD 0,894427; 0,547723; 0,44; Ua 0,4; 0,244949; 0,2 and 0,2. Ovrall, it can be concluded that Desaign of bedside monitor based on microcontrol is feasible and the mesurement result of heart signal Lead 2, heart rate, temperature, respiration, SPO2 can be presented on PC.

[ABS-921]

Designing an Ultrasonic Sensor Stick Prototype for Blind People

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Keywords: Blind People; Ultrasonic Sensors; Prototypes; Warnings

A blind people needs special attention because it is increasingly difficult to carry out activities carried out in everyday life. This study aims to develop a tool that can be used to detect obstacles for blind people using the HC-SR04 ultrasonic sensor. The prototype of a blind visual aid is a stick that uses Arduino and an Ultrasonic Sensor. The hardware consists of a minimum ATmega328 system as the main controller, an Ultrasonic

Sensor HS-SRF04 as an object detection, LM2596 Regulator Module is a kind of Switched Mode Power Supply (SMPS) which is used to reduce DC voltage levels, the barrier detection stick for working blind based on trials for several blind people. This stick is able to give a warning to the user when finding objects that are 7cm apart in front of the user.

[ABS-1433]

Correlation between Blood Iodine Level with fT4 and TSH Level on Under 2 Years Children in IDD Endemic Area

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UMY

Keywords: Blood Iodine Level; IDD; fT4; TSH

The adequacy of a persons iodine is usually assessed by the level of urine iodine. However, the level of urine iodine has not been able to describe the levels of fT4 and TSH. This study was to determine the relationship of blood iodine levels with fT4 and TSH serum level of children aged less than 2 years in endemic areas of IDD. Blood iodine level was measured using Ammonium Persulfat Dry Digestion method and fT4 and TSH using ELISA method in 50 children under the age of 2 years in Ngargosari Samigaluh Village. Spearman correlation test was used for statistical analysis. There were 44 children (88%) with blood iodine levels 52 until 109 $\mu\text{g} /$

L, having a mean fT4 of 1,638 more or less 0,163 ng / dL and a mean TSH of 2,619 more or less 2,982 mIU / L. Subjects with a blood iodine level of less than 52 $\mu\text{g} /$ L totaled 4 children (8%) with a mean fT4 of 1,605 more or less 0,161 ng / dL and a mean TSH level of 1,865 more or less 1.17 mIU / L. Subjects with blood iodine were more than 109 $\mu\text{g} /$ L totaling 2 children (4%) with a mean fT4 level of 1.69 +0.084 ng / dL and a mean TSH level of 4.16 more or less 0.82 mIU / L. The blood iodine content of children in Ngargosari Samigaluh Village did not significantly correlate with fT4 hormone levels ($p = 0.7690$) or TSH ($p = 0.287$)

[ABS-922]

Degradation, Swelling Profile, and Gel Fraction of Synthetic Coral Scaffold Incorporated PRP or PRF

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Keywords: Synthetic Coral Scaffold; PRP; PRF; Degradation; Swelling

Platelet rich plasma (PRP) and platelet rich fibrin (PRF) source from human blood and have play role in bone recovery. Both of them could be incorporated into scaffold. Synthetic coral scaffold is a mimicking from sea coral naturally that designed for bone regeneration. It should have biodegradability and bioabsorbability that influence in new bone formation process. Purpose of this study to investigate the swelling, degradation profile and gel fraction of scaffold that incorporated with PRP or PRF. Synthetic coral scaffold consist of gelatin, calcium carbonate, and sodium nitric as dispersant, divided into 3 group, incorporated PRP, PRF, and No. incorporation.

Scaffold was soaked in phosphate buffer saline and incubated in 37 degree C. Scaffold weight was measured in every 30 minutes to observe the profile swelling and gel fraction. Degradation profile was observed after 1, 3, 6, 24, 48, 72, and 96 hours. Acceleration of degradation was measure after soaking with HC1 1N after 1, 3, 6, 24, 48, 72, 96 hours until the scaffold ran out. The result showed significant differences among PRP, PRF, and control group. PRP incorporation have a slow degradation, good swelling and higher gel fraction that presented the strengthen of scaffold structure.

[ABS-1434]

Effect of Spiritual Emotional Freedom Technique (SEFT) Therapy on Game Addiction Test Scores among University Students in Yogyakarta Indonesia: A Pilot Study

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Keywords: Spiritual Emotional Freedom Technique (Spiritual-EFT/ SEFT); Online Game Addiction; Internet Gaming Disorder; Game Addiction Test

Online game addiction or internet gaming disorder is becoming a serious concern worldwide. The World Health Association (WHO) has classified gaming disorder as a mental health condition, characterized by impaired control over gaming, harmful to an individuals well-being. Cognitive-behavioral therapy (CBT) is a usual therapy for the disorder. Spiritual Emotional Freedom Technique (Spiritual-EFT/ SEFT) therapy, utilizing one's body meridian points similar to acupuncture, using fingers instead of needles, is recently introduced to treat the disorder. The pilot study examined the effect of SEFT therapy on gaming disorder. This was a two-group pretest-posttest quasi-experimental design using a stratified random sampling. Gamers at a private medical school in Yogyakarta, Indonesia, were screened with a previously validated game addiction test. Twenty medical students who met

criteria for game addiction were recruited and assigned to intervention and control groups, each consisting of 10 participants. The intervention group received one session of 15-45 minute SEFT therapy conducted by SEFT therapists. Data collected was analyzed using paired t-test and independent t-test. Mean pretest and posttest game addiction test scores in control group were 47.40 and 46.00 respectively, in intervention group were 44.70 and 33.60 respectively. Paired t- test analysis of the scores before and after SEFT therapy in intervention group showed $p=0.009$ ($p<0.05$), in control group showed $p=0.252$ ($p>0.05$). Independent t-test analysis measuring score changes between both groups showed $p=0.007$ ($p<0.05$). SEFT therapy has potentials in reducing game addiction test scores among university student gamers. The findings support testing with a larger sample.

[ABS-155]

The Effect of Behavior Changes in Control Diet for Hypertension

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Keywords: Hypertension; Control Diet; Behavior; Intervention

Objective: The aim of this study is to identify behavior changes in control diet that associated with effective hypertension control. **Methods:** This study was conducted at primary care clinic in Yogyakarta Indonesia. This study used a Quasi-experimental design with pre-test and post-test with control and intervention group in primary care clinic. The intervention and control group were selected through the specified inclusion and exclusion criteria. Data were collected using a simple random sampling. The intervention group received a control diet package for 6 weeks. **Result:** There were 84 subjects of hypertension patients, grouped into two groups: 42 patients (intervention group) and 42 patients (control group). There were differences of

increasing behavior change control diet scores between the control and intervention groups. There was a significant difference with ($p < 0.05$) of (1.41) in the intervention group, while there was a decrease in score (∆) (0.47) with p value that was not significant $p > 0.05$ in the control group. The score decreased (∆) with the average value of systolic and diastolic blood pressure 4.47 mmHg/5.17 mmHg in the intervention group, while there was an increase in the average value of systolic and diastolic blood pressure 3.63 mmHg/5.95 mmHg in the control group. **Conclusion:** Behaviors change in control diet were associated with adequate blood pressure control.

[ABS-411]

Predicting Relegation Clubs in Italian Serie A with Method Based C4.5 Decision Tree Algorithm

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Keywords: C4.5 Algorithm; Decision Tree; Relegation; Prediction; Football

The purpose of this study is to help small clubs from Italian Serie A for finding the minimum targets to avoid relegation into Serie B competition (under the Serie A league). Relegation will reduce club income from TV revenues and the decline of enthusiastic supporters. Based on the data from final standings (seasons 2006

until 2018), this can be explained by the Decision Tree method using the C4.5 algorithm. The methods that used in this study are data collection, data pre-processing, model proposal, model testing, and model validation. In this study, it is expected the value of accuracy exceeds 85% to achieve a good classification.

[ABS-923]

A Positive Correlation of Body Mass Index on Abdominal Circumference but Negative with Blood Pressure: A Study on Elderly in Gamping Sleman

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Keywords: Elderly; BMI; Abdominal Circumference

The increasing number of elderly on these recent days demands an improved quality of health for the elderly. Independence of the elderly is important in order to be happy and not to be a burden on their families. Health monitoring continuously is an effort to prevent disruption on the health conditions of the elderly. The health status of elderly people is important to know to follow up on prevention programs for the emergence of certain diseases in the elderly. This study aims to look for potential health problems for elderly people in Gamping Sleman. The method of this research was cross sectional analysis using secondary data. Sample collection is consecutive subjects. Subjects were 58

people with a mean age of men (68.30 ± 7.75) years while women were 66.96 ± 6.55 years. The data was analyzed using the bivariate correlation test with CI 99%. The results of the analysis showed that the average body mass index with an average abdominal circumference was positively correlated ($r = 0.66$; $p: 0.000$), BMI category with an abdominal circumference ($r = 0.83$; $p: 0.000$) but did not correlate with Systole pressure ($r = -0.009$; $p = 0.95$) diastole ($r = 0.093$; $p = 0.487$), age (-0.05 ; $p = 0.73$), and gender ($r = -0.146$; $p = 0.274$). The conclusion of this study is that the potential health problems among the elderly is the risk of high BMI due to the larger abdominal circumference.

[ABS-668]

Lumbar Epidural Analgesia as a New Paradigm: Views of Women in Rural and Urban Community in Yogyakarta

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Keywords: Painless Labor; New Paradigm; Rural; Urban

Pain in labor has been problematic for women regardless their socio-economic status. Lumbar Epidural Analgesia (LEA) was suggested to provide high-quality pain relief and minimizing side-effects both for maternal and the fetus or on the outcome of labour. The aim of this study was to explore the awareness and acceptance of lumbar epidural analgesia' procedure among pregnant women. This study was a descriptive analytic using questionnaire. Eighty women consisted of 40 from rural and 40 from urban areas who planned to have delivery process at Asri Medical Center, Yogyakarta. Majority of the respondents in both group 50 (66,75%) were not aware of epidural analgesia. Of the 25 (33,25%)

who were aware, 12 knew it was used to relieve pain in labor and 13 had first knowledge about epidural analgesia from doctors and midwife at hospital. A majority of the respondents 65(86,66%) would accept epidural analgesia. The age of pregnant women, level of education, social economic status and number of gravida were statistically significant, except for gestational age. Both group also have expectations to have no pain delivery process ($p=0.001$ and $p= 0,002$). Most of the participants has not been acknowledged adequately to LEA. Nevertheless, majority of participants accept it as an option of mean of pain relief.

[ABS-925]

The Impacts of Climate Change on *Pampus argenteus* Fish Production in Depok Village, Indonesia

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Keywords: Fish Production; Climate Change; Rain Fall; Sea Temperature; Humidity; *Pampus argenteus*

The Depok village, Indonesia has a potential of marines and fisheries with the catches of 11374.1 kg in 2015 to 2017. There is strong evidence the climate change (i.e sea temperature, rain fall and humidity) has affected the distribution of fish production and has implications for the marine sector toward the catch of fishermen. This study is to investigate the relationships between the climate changes and fish production in Depok village. Data on the climate change and the annual yield fishes production during the period 2016 to 2017 was analyzed. The result shows that there was a

significant correlation between the climate change and annual fish yield or catch with $r = 0.64$ and $p = 0.013$. The study also revealed a decreasing from 4028 kg in 2016 to 3600 kg in 2017 of fish caught in just over one year period. This study contributes in the form of recommendations to Government agency agencies to provide data and information related to temperature and climate changes for fishermen. Government agency need to develop information systems for monitoring and warning of sea conditions.

[ABS-927]

Implementation of Data Warehouse Data Alumni University Muhammadiyah Yogyakarta using the Single Dimension Data Store Method

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Keywords: Data Warehouse; Alumni; Tracer Study; Single DDS Architecture

Data is Information that has not been processed or manipulated, which is not enough for some users. So that the info is useful, the data needs to be prepared and integrated first to become information. Universitas Muhammadiyah Yogyakarta has a tool to monitor data on Alumni namely Tracer Study. The data currently available is still not integrated and processed correctly. Now there is a solution for processing data and data by making base data. The purpose of creating this database is to facilitate users in checking data, data that will be stored neatly and integrated into the computer. The method in this study uses the Single DDS method.

Methodology This research starts from determining the subject of investigation, primary needs, creating baseline data, analyzing results. The backstage of need is carried out with two data analyzes, and interviews with LPKA (Lembaga Pengelola Kemahasiswaan dan Alumni or Students and Alumni Management Institutions). Baseline data making in this study is single DDS which has two data store namely Stage and DDS. Data analysis is done by creating reports with Microsoft Office Excel according to user needs. The testing phase is carried out with two processes, namely: ETL Testing and Functional Testing.

[ABS-416]

The Correlation between Mineral Levels and Bone Loss Risk in Post Menopause Women

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Keywords: Blood Calcium; High Risk Of Osteoporosis; Menopause

Bone is continually experiencing rejuvenation, which requires calcium and vitamin D. Mineral storage in bones will peak (Peak Bone Mass or PBM) around the age of 20-30 years. As time goes on, the absorption of calcium decreases and it will smooth the bone tissue. In postmenopausal women bone fragility is better with bone formation, and this causes osteoporosis to occur in women. WHO reports that broken bones caused by osteoporosis will increase from 84,000 in 1986 to 6.26 million in 2050. This research is a case control study between the state of a person with certain risk factors.

Samples were 4 postmenopausal women with low mineral levels and 30 postmenopausal women with normal mineral levels. Among bone mineral indicators were analyzed by ANOVA and the alternative (if data is not normal) is Kruskal Wallis test to see the correlation to bone loss. P value from bivariat test is 0.003, it mean there is correlation between mineral levels in bone with the risk of Bone Loss in postmenopouse woman. There is correlation between mineral levels in bone with the risk of Bone Loss in postmenopouse woman.

[ABS-928]

Nitrogen-Doped Activated Carbon Derived from Activation of Sugarcane Bagasse by Potassium Hydroxide and Urea for Carbon Dioxide Adsorption

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Keywords: Nitrogen-Doped Activated Carbon; Sugarcane Bagasse; KOH and Urea Activation; Carbon Dioxide Adsorption

Nitrogen-doped activated carbon (SBCN) was synthesized from sugarcane bagasse waste as a carbon source and urea as nitrogen source through potassium hydroxide (KOH) activation for 2 h at high temperature via two step methods. The synthesized SBCN was characterized using X-Ray Diffraction (XRD), Scanning Electron Microscope (SEM), Nitrogen Adsorption-Desorption and Fourier Transform Infrared (FTIR). The results showed that the SBCN has low degree crystallinity and graphitization with highly developed

micropores, an ultralarge specific surface area due to synergistic activation effect of KOH and urea. These characteristics provide an important contribution to carbon dioxide adsorption capacity, which can reach up to 11,20% wt and this value is higher than pristine activated carbon. The results indicating that the presence of this nitrogen functionalities is found to have a beneficial influence on the carbon dioxide adsorption characteristic in standart condition and exhibit considerable potential in solid adsorption.

[ABS-1186]

Reducing the Hemodialysis Patient Stress Level Through Progressive Relaxation

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Keywords: Progressive Relaxation; Hemodialysis; Audiovisual

Background: Hemodialysis is an effective treatment carried out for patients with chronic kidney failure as an effort to improve the quality of life. 80% of hemodialysis patients experience physical stress disorder and psychosocial stress related to treatment. When faced with stress, the muscles of the body become tense as the abdomen becomes tense and cramped, the chest feels tight which has an impact on physical and psychosocial health so it is necessary to have stress management training through relaxation techniques. The purpose of this study was to determine the effect of progressive relaxation on stress levels in hemodialysis patients. **Method:** This is a quasi-experimental study with a pre-

test and post-test with control group design. There were 58 respondents divided into 2 groups (intervention and control) and each group consisted of 29 people selected by random sampling. Measurement of stress levels using questionnaire Depression Anxiety Stress Scale 42 (DASS 42). **Results:** The Mann Whitney U Test showed a difference in the decrease in stress levels which was statistically significant ($p < 0.05$). **Conclusion:** The audiovisual progressive relaxation training conducted at least 2 times a week for 3 weeks is effective for reducing stress levels in patients undergoing hemodialysis therapy for at least 1 month

[ABS-163]

The Effect of LiBOB and LiTFSI Composition on the Conductivity of PVdF-HFP based Polymer Electrolyte Membrane for Lithium Ion Battery Applications.

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Keywords: Polymer Electrolyte Membranes; PVdF-HFP; LiBOB; LiTFSI; EIS and Crystallinity

Efforts to increase ionic conductivity of polymer electrolyte membranes for lithium ion battery applications have been carried out in this study by combining electrolyte salts. Polymer electrolyte membranes function as electrolyte and separator in battery cells. The polymer electrolyte membrane is composed of poly (vinylidene fluoride co hexafluoropropylene) (PVdF co HFP) as polymer, titanium oxide (TiO₂) as filler, and lithium bis (oxalate) borate (LiBOB) and Lithium bis trifluoromethanesulfonimide (LiTFSI) electrolyte alloys as salt has been made with the solution casting method at room temperature. Polymer electrolyte membranes are characterized using Electrochemical Impedance

Spectroscopy (EIS) to determine conductivity, X Ray Diffractometer (XRD) to determine material crystallinity, and Scanning Electron Microscope (SEM) to determine the surface morphology of polymer electrolyte membranes. The test results using EIS showed that samples containing 23% LiTFSI and 5% LiBOB had the highest conductivity (2.35×10^{-6} S/cm) compared to other samples. These results are reinforced by XRD and SEM analysis which showed that the sample has the lowest crystallinity that makes the ion movement higher and the appearance of pores on the surface of the membrane with a diameter of around 2 to 5 micro meter.

[ABS-165]

Force Cooling Performance of Hot Tube Vortextube

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Keywords: Coefficient of Performance Refrigeration; Household Scale Refrigeration System; Low Pressure; Vortex Tube

Vortextube is a device that can produce hot and cold air due to the process of air separation which utilizes the phenomenon of vortex air flow in the tube. But the coefficient of performance refrigeration (COPref) is still low when compared to conventional freon-based cooling machines. This is allegedly because after the separation

the hot air is mixed again by convection and conduction. To inhibit it, forced cooling is carried out by flowing water to the surface of the heat tube which is conductor. The forced cooling of the vortextube heat tube results in cold temperatures being released more cold so the COPref increases until 45%.

[ABS-933]

A Study of Sugarcane Waste for Biomass Energy in the Supply of Electrical Energy

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Keywords: Biomass; Sugarcane Waste; Electrical Energy; Renewable Energy

This paper presents a study of sugarcane waste for biomass energy in the supply of electrical energy. Biomass is a renewable energy source derived from organic matter such as wood and sugarcane waste. As much as 30 percent of sugar cane raw material for sugar production is in the form of sugar cane waste. This sugarcane waste is very potential to be developed as a biomass energy raw material. In this study, an analysis of the potential of sugarcane waste at the Madukismo Yogyakarta sugar mill was carried out. Observations made to record how much cane waste is produced by sugar factory every day of the year. Furthermore, these data are analyzed using Homer Energy software to

obtain the potential of electrical energy produced during a year. Analysis was also carried out on the amount of electricity demand in the sugar factory. This is done to calculate how much the contribution of electrical energy from biomass as a provider of electricity supply. The results of the analysis showed that sugarcane waste as much as 1.035 tons/day on average was able to meet all the electrical energy requirements for the operation of the Madukismo sugar factory.

[ABS-167]

Factors that Positively Influence to Improve Exclusive Breastfeeding

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Keywords: Exclusive Breastfeeding; Midwife Counselor; Early Initiation of Breastfeeding; Infant Mortality

Based on World Health Statistics infant mortality rate in the world in 2016 is 41 per 1,000 live births. This value is still quite high if comparing with the Sustainable Development Goals (SDGs) at 25 per 1,000 live births. The optimal breastfeeding under two years of age has the greatest potential for survival of all precaution. An effort

to prevent infant mortality is by exclusive breastfeeding. Coverage of exclusive breastfeeding in Special Region of Yogyakarta Province in 2017 amounted to 74.9% is still below from the national target of 80%. The aim of this research was to find the factors that positively influence to improve coverage of exclusive

breastfeeding. The research method used analytic with cross-sectional design. The result of the study shows that four factors that positively influence to improve exclusive breastfeeding are mother's knowledge, age of maternal, counseling and education, and social support of midwives. Knowledge factors have an important role

in taking action to give exclusive breastfeeding. Education about breastfeeding is done during pregnancy and during pregnancy visits. Social support of midwives affect the mother's choice to breastfeeding exclusively. The most common social support is emotional.

[ABS-936]

Does Electronic Survey Give More Honest Answer in Sensitive and Personal Issue?

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Keywords: Survey; Electronic Survey

To collect an honest answer from a respondent is not a simple task, especially when the question is concerning sensitive and personal issues. Researchers must be aware of what is deemed as a taboo topic in an individuals culture and in certain places/locations. This is so that the researcher may obtain the most honest results, and acquire important easy-to-use tools when conducting a survey. The aim of this research is to find the differences of the response between paper-based survey and the response from an electronic-based survey. Four types of data collection methods were used in this research. Two of the methods were paper-based, one survey handed out in a sealed envelope and one without. The other two methods utilized Line Polls & Survey and Google Forms. The respondents were students coming from two study programs (SP), Civil Engineering and Medical School. The total sample amounted to 192 respondents, with a sample of 48 respondents for each method. Each

method took on a respondent from both SPs (n=24 for each SP). And from out of 24, we continued to divide them into 4 cohorts based on their graduating class (class of 2013, 2014, 2015, and 2016). Therefore, we had 6 students for each cohort. The data was analyzed using an Analysis of Variance. There were no significant differences between each survey methods. Interestingly, if we take a look at the results of the open paper-based survey and the survey using Line Survey & Polls, where the questions were openly asked and the researcher knew the respondents identity and results, the resulting score is slightly higher compared to the disclosed method (sealed paper-based and Google Forms). Using an electronic survey has a similar result to using a paper-based survey, hence it can be used to reach more samples and is more cost-effective. Regarding the honesty of the respondents, further study is needed to address this specific topic.

[ABS-682]

Evaluation of Antibiotic Use in Patients with Pneumonia

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Keywords: Pneumonia; Antibiotics; Use; Guideline

Pneumonia is estimated as the third leading cause of death in Indonesia and the sixth cause of death worldwide. Although antibiotics are used to treat pneumonia, inappropriate use of antibiotics can lead to resistance and decrease its effectiveness. This study was aimed to evaluate the use of antibiotics in patients with pneumonia at the inpatient pharmacy department of PKU Muhammadiyah General Hospital Bantul based on Guidelines from the Association of Indonesian Internal Medicine Specialists. This research was a descriptive non-experimental design. Data were collected retrospectively from 79 medical records of adult patients with pneumonia (January to December 2016) at the inpatient pharmacy department of PKU Muhammadiyah

General Hospital Bantul. Data were analyzed descriptively and compared with the guidelines from the Association of Indonesian Internal Medicine Specialists 2010. The results showed that there were 32 patients who filled the inclusion criteria. Seven out of 9 types of antibiotic use (83.34%) were appropriate according to the guidelines, namely azithromycin, cefotaxime, ceftazidime, ceftriaxone, ciprofloxacin, gentamicin, and levofloxacin, while 2 antibiotics (16,66%), cefixime and cefoperazone, were not listed on the guideline. In conclusion, antibiotic use in pneumonia is not entirely in accordance with the Association of Indonesian Internal Medicine Specialists guidelines.

[ABS-428]

Diagnostic Test of Ag-TB Rapid Test on Pulmonary Tuberculosis

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Keywords: Ag-TB Rapid Test; Diagnosis Test

Currently it has been developed a Rapid Test for the detection of a specific secretion RD1, RD2, RD3 antigen of *M. Tuberculosis* (Ag-TB Rapid Test) in clinical specimens for Pulmonary Tuberculosis diagnosis. The aims of this study is to determine the sensitivity and specificity of Ag-TB Rapid Test towards the combination of microscopic Acid Fast Bacilli examination and Chest radiography. One hundred outpatient patients with clinical pulmonary Tuberculosis were examine the Acid Fast Bacilli (AFB) Microscopy,

Chest radiography and serology Rapid test Ag-TB to determine sensitivity and specificity by Diagnostic test.. The sensitivity and specificity are 43.7% and 76.2% respectively, and the combination of microscopic Acid Fast Bacilli examination and Chest radiography are 38.5% and 98.5%. In conclusion Rapid Test Ag-TB can not be used to substitute the combination of microscopic Acid Fast Bacilli examination and Chest radiography for early diagnosis of Pulmonary Tuberculosis

[ABS-429]

Preparation and Physical Characterization of Meloxicam Transdermal Patches Reservoir Type

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Keywords: Patch; Meloxicam; HPMC; Carboxymethyl Chitosan

Meloxicam transdermal patches reservoir type were aimed to be prepared in order to overcome the problems by oral routes especially happened in Gastrointestinal (GI) tract. The strategy was formulation of optimized polymers to prepare transdermal patches reservoir type by determination of physical properties and investigation of compatibility of drug and excipient. Meloxicam transdermal patches reservoir type were prepared by 2 polymers, hydroxypropyl methyl cellulose (HPCMC) as rate controlling membrane and carboxymethyl chitosan (CmC) as drug reservoir. The meloxicam transdermal patches were evaluated for their physical properties such

as visual physical characteristic (visual), surface test with scanning electron microscopy (SEM), moisture content, weight uniformity, thickness, and drug content. Those data were analyzed using MANOVA with degree of confidence 95% ($\alpha=0.05$). Finally, the meloxicam patch formulation containing 7% of HPMC and 15% of CmC selected through our best result. These results were supported by data obtained from physical characterization (thickness, moisture content, weight uniformity, drug homogeneity, topographic study by SEM and drug content)

[ABS-941]

Analysis of User Satisfaction Sentiments on the Quality of Website PT. Pertamina Uses Naive Bayes and Support Vector Machine Methods

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Keywords: Data Mining; Text Mining; Sentiment Analysis; Support Vector Machine; Naive Bayes

Website managers are required to have the ability to manage, organize, and design the website so that users feel comfortable when searching for information on the website that has been made. Likewise with PT. Pertamina is making the company's website a place for promotion and providing information to users. The performance of a website can be increased as much as possible by analyzing and evaluating the level of satisfaction of its users. The public can assess a company by looking at how the company publishes information accurately with a view that is easily understood by the user. Ratings given are usually shared into various

statuses on social media owned by users such as Twitter. On Twitter everyone makes a tweet, whatever the type of tweet that only consists of fragments of words whose meaning is difficult to know. The data is getting more and more and not systematically developed, from the existing problems a method is needed to classify a tweet from Twitter into a new knowledge using the Naive Bayes classification method and Support Vector Machine. After testing, the results showed that the SVM method produced an accuracy of 89.39% while the NB method produced an accuracy of 88.02%.

[ABS-1198]

Alcoholic Beverage Consumption Behaviors among Primary School Students

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Keywords: Alcohol Consumption; Primary School Students; Health Behavior; Youth

In 1997, WHO reported that 25% of pre-adolescents used to drink alcohol worldwide. The purpose of this cross-sectional research was to explore the alcoholic beverage consumption (ABC) behaviors among 380 primary school students in Khon Kaen Province, Thailand. Data were collected by questionnaires and analyzed by descriptive statistics. The results revealed that 68 students (17.90%) used to drink and started drinking at 8 years old. For those who were in the alcohol consumption group, the average (SD) age onset of alcohol consumption was 10.78 (1.28) ; range 8-13 years. The most common reason for the first time of their ABC behaviors was curiosity in testing alcohol

(64.71%). Most of them shared the drink with friends (75.00%). There were 60.29% and 48.52% of them that consumed alcohol after finishing their final examinations and birthday parties respectively. Most students can buy alcohol at the convenience stores (66.17%). There were 69.11% who had alcohol consumption with their family members. Conclusion: Curiosity, peers, celebrating events and family members seemed to considerably influence on the students' ABC behaviors. Therefore, health-related agencies, schools and students' families may need to help together in solving this drawback behavior of young children.

[ABS-689]

Impact of Solar Energy System with and Without Reflector on Home-Scale Batik Industry

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Keywords: Photovoltaic System; Reflector; Mirror Glass; Aluminium Foil; Batik Industry

Harvesting the energy from solar has been growing significantly in the past decades. It enlarges the utilization of solar system technology, such as photovoltaic system, not only in the large-scale application, but also in the home-scale application. Indonesia is known for traditional batik clothing. There are a lot of various batik from different cities in Indonesia, and Yogyakarta is one of them. This paper reports the utilization of photovoltaic system in home-scale batik industry in Yogyakarta. The objective is to investigate the system whether there will be an extra

power generated from the photovoltaic if a reflector is applied to the panel. There are two kinds of reflectors used in this experiment, they are mirror glass and aluminium foil. The experiment was conducted in the day where the amount of solar radiation are in the same intensity among three conditions; system without reflector, system with mirror glass reflector, and system with aluminium foil reflector. The result shows that in average the system with reflector has produced higher output power compared to the system without the reflector.

[ABS-178]

The Effect of Processing Route on Tensile Properties of *Pandanus tectorius* Fibers

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Keywords: *Pandanus toctorius* Fiber; Degumming; Alkali Treatment; Tensile Properties

The effect of temperature and time duration of degumming process on tensile properties of *Pandanus tectorius* fibers has just been studied. Whilst degumming temperature and soaking time for alkali treatment were kept constant at 80 degree C and 2 hours, respectively, degumming time was varied at 1, 2, 3 and 4 hours, and sodium hydroxide solution content were varied at 2.5 and 5 wt percent. A bundle of fiber was placed in an O dashed shape cardboard holder for being tensile tested until fracture occurred. Cross sectional areas and fracture modes of representative fibers were captured under optical microscope. Whilst the cross section image areas

were then measured by means of an open source software, the imageJ, the fracture images were closely evaluated to determine their respective fracture modes. The result shows that, except for epsilon at 3 hours soaking time and 5 wt percent alkali content, sigma, epsilon and E increase with the increase of degumming time up to 3 hours, then decrease for 4 hours degumming time. The highest sigma, and E were found being 684.31 MPa, 1074.21 MPa, respectively. The highest epsilon was found being 0.140 mm/mm at 4 hours degumming time and 5 wt percent alkali content.

[ABS-947]

Failed in 10 Out of 24 Block is Enough to Make Students Failed in Licensing Test

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Keywords: CBT; MCQ; Licensure Exam

For the students in Medical School, the end goal after the long battle of studying is to be able to pass the Licensing Test. The undergraduate program of bachelor of medicine requires its students to complete 24 blocks within 4 years. It should be able to foresee the number of failures of that occur during the National Board of Examination test. The aim of this research is to explore the correlation between the results of a students block examination during their four years of study with failure on the licensing test. This is a retrospective study. Three cohorts of students (from the classes of 2009, 2010, and 2011) were used in this study. The total students were 335. Failure on the block exam that is referred to in this study is failure during the first attempt of the exam. We analyzed the multiple choice exams (MCQ) of the block

and the MCQ of the licensure test. The data was analyzed using MANOVA and Pearson Correlation. Students who failed in the licensing test had average 10.1 (sd=3.8) of failed in MCQ block exam. There was a strong, positive correlation between the MCQ score in block exam and MCQ in licensure exam. There was statistically significant difference in block exam score test prior the failure in the licensure test. Failure in almost half of the block exams is a bad sign for the future of the students. Medical educationalist should be able to create a predictive learning process item and design an early warning system. Therefore, schools will able to conduct the appropriate procedures regarding the future of the students education during their early stages of study.

[ABS-1204]

Implementation of Nurse-Physician Effective Communication Via Telephone in Hospitalization Room of Bantul X Hospital

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Keywords: Effective Communication; SBAR; Nurses; Doctors

Effective, timely, accurate, complete, clear, and understood communication by the recipient will reduce errors and improve patient safety. One method of effective communication is SBAR communication (Situation, Background, Assessment, Recommendation). This study aims to provide an overview of the effective communication of nurse-physicians by telephone. The study was conducted with a descriptive observational study approach to nurses in the hospitalization room. Measurement of frequency of implementation of nurse and doctor communication via telephone was using the SBAR communication sheet and survey using a questionnaire. The results of this study found that component A (Assessment) is a

component of SBAR communication with the lowest frequency (32%) and the highest is R (Recommendation) 100%. Problem experienced by nurses when communicating with physicians include nurses who anticipate when physicians are not happy or offended when called (22%), physicians do not consider nurses views when making decisions about patients (16%) and nurses do not have enough time to say something to physicians (16%). This study shows that SBAR communication has not reached 100% and the making of SOP (Standard Operating Procedures) is one solution to improve SBAR communication. Bantul X Hospital already has an SOP related to SBAR communication but its implementation is not good enough.

[ABS-1206]

Modeling Traffic Congestion with Spatiotemporal Big Data for an Intelligent Freeway Monitoring System

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Keywords: Traffic Congestion; Spatiotemporal; TDCS; MapReduce

Traffic congestion is a complex, nonlinear spatiotemporal modeling problem. By collecting and analyzing a vast quantity and different categories of information, traffic flow and road congestion can be predicted and avoided in intelligent transportation system. This report provides an analysis about traveling time across Taiwan from North to South, vice versa. We analyze traffic in a national freeway section between

Tainan and Kaohsiung, which represents the common trip of the population. The case study is recorded especially between Tainan and Kaohsiung using TDCS database provided by Ministry of Transportation in Taiwan. We use MapReduce framework to process data into smaller task which can be distributed on several computer cluster to speed up the process. The results show that traffic flow spatiotemporal model is strongly

influenced by holidays, direction and working hour with a recurring pattern for each week.

[ABS-183]

Optimization Sentiments of Analysis from Tweets in myXLCare using Naive Bayes Algorithm and Synthetic Minority Over Sampling Technique Method

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Keywords: Text Mining; Naive Bayes Algorithm; SMOTE Method; Sentiments of Analysis; Twitter

Text mining can be used to classification opinions about complaints or not complaints experienced by XL customers. This study aims to find and compare classifications in the sentiments of analysis from the view of XL customers. This dataset is derived from tweets of XL customers that have been written on myXLCare twitter. Text mining techniques, transform case, tokenize, token filter by length, n-gram, stemming used to build classification and sentiments of analysis. Gataframework tools are used to help during pre-processing and cleansing processes. RapidMiner is used

to help create sentiment of analysis to search and for comparasion two different classifications method between datasets using naive bayes algorithm only and naive bayes algorithm with Synthetic Minority Over Sampling Technique (SMOTE). The results of the two methods in this study found that the highest results were using the Naive Bayes algorithm with Synthetic Minority Over Sampling Technique (SMOTE) with an accuracy of 86.33%, precision 82.85% and recall ratio 92.38%.

[ABS-697]

Brochopneumonia with Hydropneumothorax Caused by Infected Bullae

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Keywords: Bronchopneumonia; Hydropneumothorax; Bullae; Under Five Years

We herein report a rare case of a pneumonia with hydropneumothorax in an underfive-years girl. This may caused by an infected bulla. This Patient presented with cough, fever and fast breathing. Radiographic features showed a bronchopneumonia with pleural effusion and

on the CT was described as bulla. Cough and fever were improved with intravenous antibiotic but her breathing was remain fast. Surgical management was undertaken and also to makesure the cause.

[ABS-186]

Effect of Behavior and Environment on Common Cold in Children

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Keywords: Common Cold; Behavior; Environment

Introduction common cold is a disease caused by rhinovirus which will heal by itself because the life span of the virus is limited. Cases of cold commissions in Meureubo puskesmas in 2018 were 147 cases. The purpose of the study was to determine the effect of knowledge, attitudes, behaviour and environment on the incidence of Common Cold in children in the Work Area of Meureubo Health Center in West Aceh Regency. The method of researched was an analytical survey with cross sectional design, a population of 60 people and a sample of 60 people which is a total sampling, the data were analyzed using simple linear regression analysis. The results of the study have an influence between

knowledge (value of regression coefficient 0.713 and significant 0.000), attitude (regression coefficient value 0.675 and significant 0.000), action (regression coefficient value 0.639 and significant 0,000), and environment (regression coefficient 0.518 and significant 0.000) Common Cold in children. The conclusion is the influence between knowledge, attitudes, behaviour, and environment on Common Cold in children. The Recommended to the Meureubo Health Center are expected to be able to provide information to the community about Common Cold disease, how to prevent and treat Common Cold in children

[ABS-443]

Effectiveness Evaluation in Chlorhexidine and Hydrogen Peroxide Combination Against Anaerobic Gingival Sulcus Bacteria (in Vitro Study)

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Keywords: Bacterial Inhibitory Zone; Anaerobic Gingival Sulcus Bacteria; 0.2% Chlorhexidine; 3% Hydrogen Peroxide

Anaerobic bacteria in the gingival sulcus is critical for initiation and development of periodontal disease. In addition to periodontal regular procedures, supporting procedure such as irrigation with chlorhexidine or hydrogen peroxide were commonly performed by dental practitioners. Pharmaceutical companies provide several modified irrigating solutions for better efficacy and convenience. However, there are still insufficient evidence for each modification. The purpose of this study is to evaluate the effectiveness in utilizing combined solution of chlorhexidine and hydrogen peroxide toward bacterial growth inhibitory capacity. This research was conducted as an experimental laboratory. The isolated bacteria from human gingival

sulcus was taken as a targeted-bacteria. The experiment was performed by using disc-diffusion method on blood agar plate which followed by evaluating the bacterial inhibitory zone. Solutions for the treatment were 0.2% chlorhexidine and 0.2% chlorhexidine combined with 3% hydrogen peroxide. Homogeneity test showed that the data were normally distributed, and the variant analysis showed that the F value was higher than Ft with $p < 0,05$. These results suggested that there was a significant bacterial growth inhibitory capacity among groups. Post-hoc analysis showed that 0.2% chlorhexidine solution gave the higher mean-difference. Therefore, it indicated higher effectiveness in inhibiting anaerobic gingival sulcus bacteria growth capacity.

[ABS-1211]

Factors Affecting Behavioral Intention (Intent to Use) Technology Balanced Scorecard (BSC) by the Level Manager Health Care Sector in Indonesia

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Keywords: Technology Acceptance Model; Balanced Scorecard; Behavioural Intention

The healthcare industry is a capital-intensive, labor-intensive and dense flow of information with performance information that requires high concentration and attention from the health manager 31,48,85. Balanced Scorecard (BSC) is an importance technological innovation by Kaplan and Norton (1992) as a performance measurement system that strategically and allow manager translate organizational strategies into the mission and performance indicators 74,88 with reality acceptance and its own variation response among users. The aim of this study is determine of factors affecting hospital managers's behavioural intention in implementing the balanced scorecard. This research type is mix (Quantitative-Qualitative) method with Cross Sectional

design, purposive-convenience sampling technique and Sequential Explanatory Strategy. Data collected by questionnaires analyzed with multiple linear regression and interviews analyzed with thematic analysis then combine them. The quantitative analysis's results of 60 samples showed a simultaneous influence of perceive ease of use and perceive usefulness on behavioral intention in implementing BSC (Sig = 0.000 < 0.05) and perceive ease of use have influence on perceive of usefulness (Sig = 0.000 < 0.05). While partially perceive ease of use (Sig = 0.422 > 0.05) and perceive of usefulness (Sig = 0.001 < 0.05) have influence on behavioural intention variable, also perceive ease of use have influence on perceive of usefulness (Sig = 0.000 < 0.05)

[ABS-1467]

Black Cumin Seeds Increase Lymphocyte Activity in IFN- γ Secretion in *Sprague dawley* Mice (SD) Induced by Dimethylbenzanthracene

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Keywords: Black Cumin Seed; IFN- γ ; DMBA: Immunomodulator; Carcinogenesis

Interferon-gamma (IFN- γ) is one of the central cytokines in the anti-carcinogenesis immune response. Lymphocytes are one of the IFN- γ producing cells. Black cumin seeds (BCS) have an active content of thymoquinone and unsaturated fatty acids with biological activity as immunomodulators. This study aimed to determine the effect of administration of BCS extract on IFN- γ secretion activity by SD rat lymphocytes induced by dimethylbenzanthracene (DMBA). In vivo experimental study on DMBA induced SD rats. BCS extract was given with three doses for two

weeks before being induced and five weeks during DMBA induction. IFN- γ levels in lymphocyte culture supernatants were determined by the ELISA method. The difference in IFN- γ levels between groups was analyzed by ANOVA test, the significance of 95%. The results showed that administration of BCS extract for 14 days did not affect cellular composition toward the edge of the test animal. BCS extract can increase IFN- γ secretion activity by DMBA-induced SD rat lymphocytes.

[ABS-703]

Clinical Evaluation Success of Root Canal Treatment on Pulp Necrose and Irreversible Pulpitis in Dental Hospital, University Muhammadiyah Yogyakarta (Studies of Medical Record)

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Keywords: Root Canal Treatment; Clinical Evaluate Root Canal Treatment

Clinical evaluation is one of the most practical evaluations of root canal treatment. The success of root canal treatment can be seen in a period of 6 months to 4 years. The success rate of root canal treatment after clinical and radiographic evaluation ranges from 83% to 96% depending on pulp status before treatment. Purpose of research to clinically evaluate the success of root canal treatment in teeth undergoing necrosis and irreversible pulp based on age, sex, tooth element and social status at dental hospital. The type of research is analytic observational with cross-sectional study design. The subjects used were the male and female medical records that had performed root canal treatment for 1 to 3 months, 4 to 6 months and 6 to 12 months in dental hospital based on medical records. Non probability

sampling technique with purposive sampling. The number of research samples is 65 samples. Data were analyzed by the Mann U. Whitney Test. Statistical tests showed no significant difference in clinical evaluation of root canal treatment in cases of irreversible pulpitis and pulp necrosis of significance values ($p > 0.05$). Successful root canal treatment showed dominant results with good categories 88.5%, moderate 10, 0% and 1.5% bad. Root canal treatment is most commonly found in the male sex, age group 17-30 years, maxillary incisor tooth, and middle to upper socioeconomic status. There is no difference in clinical evaluation of the success of root canal treatment in teeth with pulp necrosis and irreversible pulpitis

[ABS-192]

Monitoring Baby Conditions in the Baby Box based on IOT Technology

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Keywords: Moisture Sensor; Water Sensor; Baby Condition; IOT; Nodemcu

Baby box is needed for baby safety and for baby's physical health maintenance. A baby box equipped with a mat is a comfortable baby bed. Several conditions make babies feel uncomfortable such as bedwetting. If left unchecked, it can irritate the baby's skin inducing disease including eczema, spots, and other skin irritation. Based on the problems, a detection device for baby

bedwetting and crying was made. Baby bedwetting devices used moisture sensor and water sensor placed under the mattress. The baby's urine is absorbed by the baby's bed and touches the water sensor. By using the system, it is expected that the baby can sleep well and there is no irritation to the skin.

[ABS-193]

Nurse Call Device based on IOT Technology

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Keywords: Nurse Call Internet of Things Routers Nodemcu Wemos

The hospital is an integral part of a social and health organization providing comprehensive services including curing and preventing diseases handled by doctors, nurses, and other health professionals. Nurses are considered as having a very important duty in hospital service since they are constantly giving care to the patients. To speed up the service, the hospital is equipped with nurse call buttons in each patients room.

Currently the nurse call device used has been very conventional using cables to connect the patients room to the nurses room. A tool to call nurses with more sophisticated system is necessary to make. The system made was based on IOT technology using Wi Fi and routers for communication. When the patients need help, they just press the call device and the nurse will immediately identify and go to their room.

[ABS-194]

Follicular Analysis De Graaf Due to Giving Red Fruit Oil Extract

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Keywords: Folliculogenesis Process; Follicle De Graaf; Red Fruit

The occurrence of hormonal reproduction disorders in women is one of the risk factors for the occurrence of infertility which influences the process of folliculogenesis. Hormonal disorders need to be overcome through conventional medicine, one of which is FSH hormonal therapy as a follicular development therapy for triggering ovulation. But FSH therapy has the risk of ovarian hyperstimulation side effects, high maintenance costs, emotional burdens, and unsatisfactory results so that it requires other alternative ways which are more economical and have no side effects. Red fruit or Pandanus Conoideus is a typical

Papuan plant that has many compounds, one of which has essential compounds needed for the female reproductive system. This study analyzed the amount, diameter, and area of de graaf follicles after being given red fruit oil extract in infertile female mice. The results showed that the red fruit oil extract had an effect on the number, diameter, and area of de graaf follicles with p value $\alpha (0.05)$ and the value of the correlation coefficient (r) between the diameter and area of the follicle is 0.88, indicating that there is a close relationship between the diameter variables and the width of the follicle de graaf.

[ABS-1474]

Machine Design of FAMBORES (Fast Filling Machine and Baglog Suppressor) for Increasing the Production of Baglog Mushroom Product

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Keywords: Baglog Mushroom; FAMBORES; Baglog Machine

Mushroom demand is quite high in the market because mushrooms are one type of vegetable that is consumed by many people because of their delicious and highly nutritious taste. Mushrooms are also a good source of minerals. To obtain some great mushrooms indeed they are needed a medium to grow the mushroom. Its medium is called baglog where the mushroom could grow healthy depends on its material composition inside and how to make the form of baglog. But nowadays our partner Rumah Kebun Jamur Sleman, the producer of baglog mushrooms frequently lack of ability to produce lots of baglogs request from consumer. A day, the

minimum demand of baglog reach 1300 baglogs, but our partner only could produce 800 baglogs a day. From that matter, FAMBORES (Fast Filling Machine and Baglog Suppressor) could be the best solution to increase the baglog mushroom product. In the design, FAMBORES is using 1 House Power (HP)s motor, worm gearbox with ratio 1:50 as its reducer, there are 5 holes to hang the plastic and only in 12 seconds could obtain 1 baglog.

[ABS-709]

Nutritional Counseling Helps Weight Loss in Postpartum Mothers

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Keywords: Nutritional Counseling; Postpartum; Weight Loss

Postpartum weight retention is a risk factor for obesity which increases the burden of cardiovascular disease, diabetes and cancer. Nutrition counseling intervention is expected to help weight loss. The aim of this study was to know the effect of giving nutrition counseling on weight loss in postpartum mothers. This research is a quasi-experimental study. The number of sample was 30 postpartum mothers (15 treatment group and 15 control group) obtained through purposive sampling technique. Nutrition counseling interventions were carried out at least once during the research. Body weight measurement was conducted before and after within 1 month. The intervention group received

nutritional counseling and was given leaflets as well as text/call reminder as supervision. The data were analysed using descriptive statistics, paired t-test and Mann whitney test. The paired t-test showed a significant change in body weight in the intervention group ($p = 0.013$), while that of in the control group was not significant ($p = 0.458$). Based on the Mann-whitney test, the mean weight change was significant ($p=0,001$) between the intervention groups (1.48 ± 1.220 kg) when compared to the control group (0.46 ± 0.082 kg). Nutrition counseling helps reduce postpartum maternal weight loss.

[ABS-456]

Antihyperglycemic and Hipolipidemic Capacity of *Kepok* Banana Peel Extract in Diabetic Rats

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Keywords: Diabetes Mellitus; Glucose; Triglyseride; LDL Cholesterol; Banana

Diabetes mellitus is the fourth cause of non-communicable diseases. Diabetes mellitus is caused by an altered insulin secretion, function or both. One of the risk factors of Coronary Heart Disease for patient with DM type 2 is dyslipidemia. Dyslipidemia is a lipid profile abnormality such as the increasing of total cholesterol, triglyceride, LDL and the decreasing of HDL level. At DM condition, patients will encounter a lipid profile change such as hypercholesterolemia, hypertriglyceride and the increasing of LDL level. This study aims at assessing the capacity of banana peel extract to decrease glucose, triglyceride and LDL-

Cholesterol level on streptozotocine induced *Rattus norvegicus*. This study is an experimental research with pre and post-test control design. The samples of this research were 25 *Rattus norvegicus*. Data were analyzed with *Wilcoxon test*, *Kruskall wallis*, and *Mann Withney test*. The duration of the research as 21 days. The analysis result on utilization of banana peel extract can decrease glucose, triglyceride, and LDL-Cholesterol level ($p=0.025$, $p=0.043$, $p=0.043$). Thus, it can be concluded that *kepok* banana peel extract has the capacity as antihyperglycemic and antilipidemic in diabetic rats.

[ABS-714]

Effective Treatment of Tuberculosis through Family Education, Medication Adherence, and Nutrition: Tuberculosis School for Health Cadres in Bantul, Yogyakarta

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Keywords: Healthy Cadres; Education; Knowledge; Attitude; Tuberculosis

The incidence of tuberculosis in Yogyakarta is 221 cases, 60.18% male and 39.82% female. These conditions are influenced by the lack of adherence to taking medication, carrying capacity of the family and the lack of optimal role of health cadres in health promotion and tuberculosis in the community. The aim of the study is to analyze the influence of tuberculosis prevention education on health cadres' knowledge and attitudes. The research method of this study was experimental, without control group design. The education used a kit containing posters, videos and leaflets. The number of subjects was 62 health cadres. The results show that there is a significant relationship

between education using the kit with the knowledge and attitudes on tuberculosis prevention efforts in the Bantul area of Yogyakarta. A good level of knowledge is expected to increase the prevention of tuberculosis transmission. The conclusion of the study is there is a significant increase on the level of knowledge and attitudes of health cadres in an effort to prevent tuberculosis cases after education using poster kits, videos and leaflets on the importance of family and adherence to taking medication and nutrition in dealing with tuberculosis.

[ABS-1484]

Image Processing for Corrosion Quantification in Concrete Slabs using GPR data

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Keywords: Corrosion; Concrete; GPR; Image Processing

This study aims to quantify the corrosion of steel reinforcing bar (rebar) in concrete structures using ground penetrating radar (GPR) and image processing techniques. A method to accelerate corrosion of steel rebars in concrete slab to different level of corrosion is applied. The power supply and the electrolyte are used to induce significant corrosion within a short period of time. The 2 GHz GPR is used to assess the corrosion in the reinforced concrete slab after 28 days of standard

moist preservation. GPR method has been found to be useful for quantifying steel corrosion on existing concrete slab. The image processing techniques were used to process the GPR data. The results of the analysis of the GPR data shows that corrosion of the rebars could be detected. The subsequent image processing technique exhibits that corrosion of the rebars could be appropriate quantified.

[ABS-206]

The Impact of 10-Valent and 13-Valent Pneumococcal Conjugate Vaccination on Invasive Pneumococcal Diseases in Children Under Five Years: An Article Review

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Keywords: Impact of Vaccine; 10-Valent Pneumococcal Conjugate Vaccine; 13-Valent Pneumococcal Conjugate Vaccine; Invasive Pneumococcal Diseases; Children

One of reducing the under-five mortality rate strategy caused by Streptococcus pneumonia-like pneumonia is established the strategy of vaccination Pneumococcal Conjugate Vaccine (PCV). This article review aims to examine the impact of implementation PCV-10 or PCV-13 immunization as a national immunization program on the decrease in the incidence of Invasive Pneumococcal Disease (IPD) of children in some countries. The articles search was conducted on PubMed. The research that was included in the review is the research which evaluating the impact of PCV-10 or PCV-13 vaccination on the incidence of IPD (pneumonia, sepsis or meningitis) in children under 5 years; the full text is available,

published in 2013-2018 and English version. A total of 114 studies were initially retrieved and reviewed. After further review of references from the retrieved studies, 9 studies were finally selected that met all eligibility criteria. The article was reviewed in nine articles. The study was conducted in Brazil, Finland, and Peru (PCV-10), Italy, Gambia, Denmark, Rwanda, and Canada (PCV-13). Our review study showed that implementation of PCV-10 or PCV-13 in national vaccination program can reduce the incidence of IPD, consist of CAP, meningitis, sepsis, in children who are eligible to be vaccinated in some countries.

[ABS-1230]

Analysis of Thermal Stratification on a SWH Tank Filled with PCM

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Keywords: Phase Change Material; Solar Water Heater; Charging; Thermal Stratification; Richardson Number

Phase change material (PCM) is known as a material that has high energy density. The integration between water and PCM in a solar water heater (SWH) system has a potential method to increase the capacity of thermal energy storage. One of important parameter in a SWH tank is a thermal stratification. This parameter can affect thermal efficiency of a SWH system. The aim of this paper is to analyze the thermal stratification of water in a SWH tank containing PCM. PCM is inserted in a cylindrical capsule. The bundles of capsules are arranged in a SWH tank. An outdoor experiment is conducted on a SWH system during charging process. The intensity of

solar radiation, water and PCM temperature are recorded. The resulting data was used to make the temperature evolution of water. Stratification analysis was performed using the Richardson number calculation. Based on the evolution of water temperature, it appears that there is a temperature difference in each layer of water. The results also show that the Richardson number is greater than 1. This result confirms that thermal stratification has been formed in a tank. The addition of PCM in a SWH tank is able to maintain thermal stratification.

[ABS-1231]

"GOLDARHES" As a Digitalization Blood Type Test Device based on Light Sensors

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Keywords: Blood Type; Rhesus; Medical Device; Light Sensor; Android

According to the survey in 2016 the death rate caused by negligence reached 1.4 million people in Indonesia. One of the negligence was caused by a blood type checker which were still manually done and high risk in human error. Goldarhes is a device to determine blood type with a light sensor with LDR and LED components and an Arduino microcontroller, then it showed the results on LCD. This device has never been used in Indonesian healthcare facilities. The Casing which is environmental friendly material is made of corn husk waste containing cellulose, lignin, and hemicellulose. In

addition, the energy power of the device itself uses a charging system so that it can reduce the amount of chemical waste that is difficult to decompose. The Methods of this research is True Experimental using 100 samples of participants. The results obtained will be displayed on the LCD which is processed in less than 10 seconds. The results of this research was faster than manually test, the mean of test period was take 5 seconds and the sensitivity of the tool is 95%. Thus "GOLDARHES" can be used as an effective, accurate, and fast medical device in determining blood type.

[ABS-465]
Strategic Formulation for Casemix System

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Keywords: Casemix System; INA-CBGs; Strategy Formulation; SWOT Analysis

Since January, first, 2014 Casemix System has been implemented in Indonesia. Payments for health services of hospitals implemented by National Health Insurance System have used INA-CBGs. INA-CBGs is the Indonesian name of the Casemix system. The change of payment system has significant implications for hospitals, so that they must reformulate their casemix system strategies. The aim of the study is to formulate strategies of casemix system of a private hospital in Yogyakarta by using SWOT Analysis. Data was collected by using structured interviews with director of Human Resource, manager of Human resource, manager of Finance, manager of Nursing of hospital.

Combination of total score of Opportunities and Threats and total score of Strengths and Weaknesses can identify a strategic position. Findings of the research showed that strategy for casemix System was combination between Strength (S) and Opportunity (O), namely the use of all strengths of the hospital to gain opportunity from external environment. The result of this research contributes to the hospital preparedness in the face of change to participate in supporting national and World Health Organization policies in achieving Universal Health Coverage by employing more appropriate strategies.

[ABS-1234]
Relationship between Knowledge and Physical Activity in Diabetes Melitus Patient

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Keywords: Diabetes Melitus; Counseling; Pill Box; Physical Activity; Knowledge

Diabetes mellitus has high prevalence which is influenced by several factors, that is lack of knowledge, physical activity and diet. The aim of this study to look at the relationship between physical activity and knowledge in outpatients with type II diabetes mellitus at the Jets I Health Center, Bantul with Cross Section design. The sample were 71 people and divided into 2 groups, a control group got counseling from health workers in the Health Centre and treatment groups got 5A modification brief counseling interventions and the use of the pill box. Data collection was prospective and interviewing using questionnaires of physical activity

and knowledge. Data analysis using SPSS, descriptive test with chi square and the significant level of 0,05. The delta of physical activity in the treatment group was 288 while the control group experienced a decrease in value of 11. The mean of knowledge control group is increase as much as 0.97 and the treatment group amounted to 17. The sig value of the difference in knowledge values in the control and treatment groups was $0.928 > 0.05$ so there was no significant difference but there was still an increase in patient knowledge after counseling

[ABS-211]

The Effectiveness of Education of Needlestick and Sharp Injuries to Increase Knowledge and Attitude of Health Worker

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Keywords: Effectiveness; Education of Risk of Needlestick and Sharp Injuries; Knowledge; Attitude; Health Worker

Nosocomial infection appears in a patient under medical care in the hospital. It is a worldwide problem that always increases significantly. It is necessary to apply standard precautions to minimize the risk of infection in hospitals. One of which is the risk of needlestick and sharp injuries. This study aims to find out the effectiveness of education about needlestick and sharp injuries module to increase knowledge and attitude of the health workers in hospital. This study used quasi-experiments with pre-test and post-test control group design. To explore the knowledge about the risk of needlestick and sharp injuries, this study used purposive sampling with 29 respondents of control group and 103 respondents of treatment group. To explore the attitude of the risk of needlestick and sharp injuries, this study used purposive sampling with 28 respondents of control group and 98 respondents of treatment group. The data

were analyzed by Wilcoxon and Independent sample T test. This study used questionnaire as an instrument to collect the data. The result showed that knowledge about the risk of needlestick and sharp injuries in control group is $p = 0,578$ ($p > 0,05$), which is not significant. The result from treatment group is $p = 0,001$, which is significant. There is a significant difference between control and treatment group in comparison. The result showed that attitude of the risk of needlestick and sharp injuries in control group is $p = 0,277$ ($p > 0,05$), which is not significant. The result of treatment group is $p = 0,001$, which is significant. There is a significant difference between control and treatment group in comparison. The education is effective to increase knowledge and attitude of the health workers about the risk of needlestick and sharp injuries in hospital.

[ABS-467]

Quality Detection of Eggs with Light Dependent Resistor Sensor

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Keywords: Light Dependent Resistor; Eggs; Light Intensity; ADC

Egg is one of the main protein source for Indonesian people. Egg quality is determined by the contents of the egg shell. The parameters these can be measured using a light intensity which can be used on the research method of light intensity that can be analyzed using sensor LDR (Light Dependent Resistor). The resulting parameter of this method is the value of the output of the ADC from sensor LDR. The results from soak the eggs with water of rice field has a value of read $ADC < 2$ (the quality of the eggs is bad) with an average light intensity detected

amounted to 0.01577, soaking the eggs in water, coffee has a readout value $3 < ADC < 4$ (the quality of the eggs is not good) with an average light intensity. Detected amounted to 0.0471203 and without soaking the eggs have the value of $ADC > 5$ (the quality of the eggs is good) with an average light intensity detected amounted to 0.8706646. So with an average light intensity detected amounted to 0.8706646. So that with several treatments carried out it can be concluded that the type of egg immersion affects egg decay.

[ABS-1235]

Relationship between Education Level and Religiosity in Diabetes Mellitus Patient

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Keywords: Diabetes Melitus; Religiosity; Education; Counseling; Pill Box

Diabetes mellitus (DM) is a chronic disease that can affect a person's physical or psychological. One non-pharmacological therapy that can be done is religious-based counseling. The aim of the study was to analyze the correlation between education level and religiosity of diabetes mellitus outpatient in Jetis 1 Bantul Health Center. The research applied an observational analytic design with cross sectional approach. Data collection was prospective and interview using questionnaires of religiosity scale. The inclusion criteria were DM patients aged > 20 years, received at least one oral diabetes medication, and willing to become respondents of the study. A total of 71 respondents were enrolled in this study and divided in two groups, the control group got counselling from health worker in the

health center, and the treatment group got brief counseling 5A modification and pill box. Data were analysed using descriptive test with chi square, and the significance level of 0,05. The results of this study showed that in the control and treatment groups most of them had first education level or below, 28 people (72.2%) in the control group, and 17 people (48.6%) in the treatment group. Based on the scale of religiosity in the control group was 26 patient (72,2%), and the treatment group was 22 patient (62,9%) had high religiosity. The p value in the control group was 0,232 and in the treatment group was 0,000. The conclusion of this study is treatment group with the first education or below are more religious than control group with same level of education ($p < 0.05$).

[ABS-468]

Callibrating the Standard Propagation Model for Suburban Environments Using 4G LTE Field Measurement Study Case in Indonesia

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Keywords: Standard Propagation Model; Tuning; Coverage Planning; RSRP; Field Measurement; 4G LTE

Effective and efficient network planning for appropriate area coverage can use the standard propagation model (SPM) tuning method. SPM functions to increase the accuracy of predictions from the appropriate coverage planning results in field implementation. This study uses a calibration method resulting from field measurements with 4G LTE 1800 MHz technology. The results of the simulation found that the percentage of SPM propagation model for RSRP is above -80 dBm, the difference is 4.30%, RSRP values range from -80 dBm to -95 dBm at 21.52%, -95 to -110

dBm at 25.45%, and RSRP is smaller than -110 dBm at 0.37% by measuring field signal distribution. Coverage prediction of SPM propagation model has good results with predictive accuracy of 87% compared to cost 231 of 79%. The improvement of RSRP in the simulation is caused by changes in the correction values K1 to K7 which are in accordance with the criteria of the Purwokerto City area after tuning.

[ABS-1238]

Analysis Consumers' Willingness-to-Pay for Remanufactured Product

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Keywords: Gadget; Product Brand; Remanufactured Product; Willingness-to-Pay

Remanufacturing industry has transformed into a crucial business concern due to the favorable profit achieved by a corporate. The returned products caused by end-of-used and end-of-life can be traded back both on the second-hand market and remanufactured products market. Despite the utilization of secondary resources in the making of remanufactured products, these products function similarly to the new ones. Based on that consideration, this study investigates how the consumers willingness-to-pay (WTP) on remanufactured products. This research was directed on remanufactured electronic products extensively used by university students, namely gadget. The Gadget has been selected due to the increasing demands of purchasing this product among

the society, as well as the availability of various brands in the market. As for the students, the selection is based on the consideration that they are capable of providing an appraisal to distinguish remanufactured products from the new ones, particularly in term of brand and pricing. The result indicates that the students put brands into considerations when making decisions to WTP for remanufactured products. This results in the urgency for the original-equipment-manufacturer (OEM) to promote their remanufactured products well publicly. The incapability of positioning remanufactured product brands will generate competition with new products market.

[ABS-477]

Environmentally Friendly Method of Virgin Coconut Oil Production Using Enzymatic Reaction

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Keywords: VCO; Pineapple; Enzymatic; Production

Virgin Coconut Oil (VCO) has been known since a decade ago. This oil is made from coconut milk using unheated method, such as enzymatic, physical, and chemical method. The VCO has been proof to have many health benefits such for treatment of hyper-cholesterol, diabetes, viral and bacterial infections. Also, the oil have been utilized on the cosmetics industry for skin beauty topical production. In the increase of VCO demand for pharmaceutical industry, this study was conducted to find the method for VCO production using an environmental friendly process. The environmentally friendly was conducted to maintain the sustainable

environment. In this paper is deal with the enzymatic method of VCO production. The enzyme was obtained from fresh pineapple juice that is proofed contain bromelain. The enzyme will cleave the polypeptide bond of emulsifying agent in the coconut milk. Thus the oil will be separated and then collected as the VCO. During this work, the amount of the fresh pineapple juice was varied to measure the rate of VOC production. Based on the observation during the production, it was found that the increase of fresh pineapple juice added was increase the VCO production.

[ABS-225]

Improving Biodiesel Properties by Mixing Jatropha Oil and Soybean Oil

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Keywords: Heating Value; Viscosity; Jatropha Oil; Soybean Oil; Biodiesel

The need for biodiesel as an alternative fuel will increase along with the increasing energy consumptions and the depletion of fossil fuel reserves. Jatropha oil and soybean oil are potential raw materials for biodiesel. Each raw material gives different properties to biodiesel. Mixing the two types of oil makes it possible to improve the quality of biodiesel. The aim of this study was to determine the effect of variations in the composition of the oil mixture on the biodiesel properties. Jatropha oil

was mixed with soybean oil in various compositions. The mixture was heated and stirred for 60 min at 90°C. The more the percentage of soybean oil biodiesel, the viscosity of the biodiesel mixture decreased. Mixing with 20% soybean oil has a significant reduction in viscosity. The increasing percentage of soybean oil also influences the higher heating value of the biodiesel mixture.

[ABS-228]

Obstacles and opportunities for anaesthesiologists to improve the quality of palliative care

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Keywords: Anesthesiologist; Palliative Care; Anesthesia

In 2017 worldwide, it is estimated that nearly 9 million people die from cancer and will continue to increase to 13 million people per year by 2030. In Indonesia, the prevalence of cancer is also quite high. According to the 2013 Riskesdas data, the prevalence of cancer in Indonesia is 1.4 per 100 residents or around 347,000 people. The most frequent and major cancers are cervix, breast, lymph nodes, skin and nasopharynx. Patients with advanced disease, both cancer and non-cancer, generally experience high symptom prevalence and psychosocial pressure as well as low physical, psychosocial, and spiritual needs that require palliative care that is expected to improve the quality of life for patients and their families. Methode: Review article from Pubmed with keyword anesthetist, anesthesia, palliative care. Result and discussion: Anesthesiologists

with substantial experience in interdisciplinary pain management can provide palliative drugs for cancer patients such as: 1) use of opioid analgesics; 2) consider the biopsychosocial pain model; 3) help patients live as actively as possible until they die, and 4) help families deal with patients illnesses and lose family members. It is important for anesthesiologists to assist patients at the end of the life stage, even in limited number of anesthetists. Palliative care is often overlooked and there is no uniformity of standard services by anesthesiologists. Anesthesiologists have so far carried out to improve patient safety and surgical outcomes and do not work in critical care. Conclusion: there is still a need for a palliative service model involving anesthesiologists because of some of their abilities, although the number of anesthesiologists is still limited.

[ABS-484]

Comparative Analysis of Modulation of BPSK, QPSK and 16-QAM in 5G Technology on AWGN and Frequency-flat Rayleigh Fading

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Keywords: 5G Modulation; 5G Adaptive Modulation Code; 5G Additive White Gaussian Noise; 5G Frequency-Flat Rayleigh Fading 5G; 5G Eb/N0

Telecommunications technology continues to grow every year because the need for communication that is used by the community to support life needs in terms of the use of information is increasing. The process of transmitting information through a channel will not be separated from obstacles in the form of errors. One of the transmission technologies is modulation. Modulation is the process of laying on information from the modulation signal to the carrier (the high frequency) by varying the carrier signal according to the modulation signal. One parameter that determines the quality of digital modulation is the Bit Error Rate (BER) by looking at the effect of the energy value per bit of the power spectral density ratio (E_b / N_0) and signal to noise

ratio (SNR). The purpose of the research can be a reference for the comparison between modulations in the implementation of the fifth generation (5G) technology and can be developed in further research, so that the benefits generated can maximize the implementation of 5G technology. Data collection in this study uses two scenarios, namely Additive White Gaussian Noise and Frequency-flat Rayleigh Fading channels. In each scenario using modulation that is different from the modulation of BPSK, QPSK and 16-QAM. After the simulation results using Matlab are obtained, these results will be compared with the BER theory of each modulation.

[ABS-1255]

Application of Lean – Kaizen in the Implementation of Hospital Accreditation

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Keywords: Lean Management; Accreditation; Visual Management; Work Culture

The principle of lean management is to eliminate waste and to change flexible procedures for effective repairs to achieve standards by involving employees. Hospital accreditation is a recognition given by the government for hospital management, because it has met the standards that have been set. The various efforts needed to achieve these standards are carried out so that the implementation is easy and pleasant. Thus, continuity needs to be maintained so that it becomes a work culture. This study aims to analyze the application

of lean management in the implementation of hospital accreditation standards. This study employed qualitative methods with action research design in hospitals. The result of the study showed that the application of lean management could improve the implementation of accreditation on the Education and Communication Management standard 11 by using visual management, which is to place markers to make it easier for the unit to solve problems and eventually become a work culture at X hospital in Yogyakarta.

[ABS-233]

Comparative Analysis of Two Green IT Frameworks, G-Readiness Framework and ZEN Framework

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Keywords: Green It; Zen Framework; G-Readiness Framework;

Some organizations have implemented Green IT to reduce the negative impact of IT devices. The framework for measuring the implementation of Green IT that much used is the G-Readiness framework. In Indonesia, there is a local framework called the ZEN framework. This study focused on analyzing the comparison between the G-Readiness framework and the ZEN framework. There are several parameter approaches that are used to compare two frameworks such as regulations, device periods, data center design, power management, recycling, vendor procurement, etc. Data collection

method uses a literature review, questionnaire, and directly analyzes comparisons between frameworks. The conclusion of this study is that each framework has its own advantages and disadvantages, where the comparison shows that the G-Readiness framework and the ZEN framework have no difference. Generally, the difference only in the completeness of the aspects that include it. Furthermore, the ZEN framework is more specifically used for universities, while the G-readiness framework can be used for various organizations.

[ABS-1001]

Artificial Denture Foreign Bodies in the Esophagus: A Case Report

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Keywords: Esophagus; Foreign Body; Rigid Esophagosopic

Foreign-body ingestion is a common event most often seen in children from 6 months to 6 years of age. In adults, foreign bodies are usually ingested accidentally together with food. The esophagus is the most common site for acute foreign body or food impaction in the gastrointestinal tract and 80% to 90% of swallowed objects that reach the stomach will eventually pass without intervention. The aim of the study was to analyse the symptoms, management and outcome of patients with foreign bodies in the esophagus. We report a case of 56 years old woman who presented with difficulty swallowing (dysphagia) and odynophagia after

ingested artificial denture accidentally during a meal for 3 hours. There was no respiratory distress, bleeding, chest pain or fever. There was pooling saliva in bilateral pyriform sinuses in indirect laryngoscopy. X ray neck showed artificial denture at the level of C7 vertebra. The patient was admitted for emergency rigid esophagosopic and removal of foreign body. The artificial denture was removed successfully with minimal bleeding. No complication afterward. Endoscopic extraction of dentures carries a high risk of perforation. Rigid oesophagoscope is routinely used as an effective tool to remove foreign body.

[ABS-490]

Exercise Habits, Hematogram and Chemistry of Blood in DM Patients at Risk for Metabolic Syndrome in Jetis, Bantul Public Health Center

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Keywords: Exercise; Habit; Diabetes Mellitus; Hb Levels; Hematocrit Levels; Blood Sugar Levels

Exercise habits is one of the WHO recommendations as a form of non-pharmacological therapy in patients with diabetes mellitus (DM). DM is one of the public health problems in DIY, including in Bantul. Until now not much has been studied so that the purpose of this study was to find out how the description and relationship of exercise habits with hematogram and blood chemistry in DM patients at Jetis Health Center, Bantul. This study was conducted with a cross-sectional design in 99 patients at risk for DM. The inclusion criteria were male or female patients over 18 years old diagnosed with DM or had undergone antiDM drug therapy for 3 months and stated they were willing to study the subject. Interviews were conducted to obtain exercise habits data and hematogram and blood chemistry measurements (GDS, cholesterol and triglycerides) were carried out. Data is presented descriptively and analytically. The mean GDS,

cholesterol and triglyceride levels were subjected to a mean difference test with one-way t test with 95% significance. The results showed that the majority of the research subjects were women, basic education, private employment, no smoking, exercise habits, average blood cavern level and fasting were higher than the target, as well as the mean level triglyceride levels. Hb levels, leukocyte count, platelet counts and erythrocytes within normal limits. The cholesterol level of the test subject is also within the normal range. The results showed that the Hb and hematocrit levels of the exercise group were higher than the non-exercise group, but there were no differences in the number of leukocytes, platelets, erythrocytes, sugar levels, cholesterol levels and triglyceride levels. Based on the results of the study it can be concluded that exercise activities are associated with an increase in Hb and hematocrit levels in DM patients at the Jetis Bantul Health Center.

[ABS-491]

Study of Clinical Conditions and History of Illness with the Incidence of Terminal Chronic Kidney Disease in Yogyakarta

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Keywords: Hypertension; Hyperglycemia; Hypertriglyceridemia; Case-Control; ESRD

End-stage renal disease (ESRD) is one of the public health problems in Indonesia. This study aims to determine the condition of premorbid clinics with the incidence of ESRD. The study design in this study is a case-control with a comparison of cases: the control is

equal to 1: 1. Based on the calculation of the sample size of at least 44 patients, the number of volunteers involved in this study was 100 people. The cases were ESRD patients who were determined by the criteria of Pernerfri and as controls were patients from the same hospital who

were not by the requirements of ESRD Pernefri adjusted for cases based on age and sex. Inclusion criteria of the study sample (1). ESRD sufferers need routine hemodialysis and doctors diagnosis supported by laboratory data; (2). Indonesian citizen; (3). 15-75 years old; (4). Willing to fill out consent information, and (5). Exclusion criteria for the study sample (1). Patients with congenital kidney disease; (2). Have a history of kidney transplants, and (3). Having a mental disorder. We collected secondary demographic data and patient

history from medical records. Chi-square analysis with 3x2 or 2x2 tables and the Fishers exact test was used to determine the relationship of clinical conditions or biological conditions and pain history to the incidence of ESRD. The results showed that the clinical requirements of anemia, hyperglycemia, and hypertriglyceridemia were related to the prevalence of ESRD. History of hypertension, diabetes mellitus, dyslipidemia, and family history of ESRD are associated with an increased incidence of ESRD.

[ABS-493]

The Preparation and Characterization of Super-Hydrophobic Surface on Aluminum Substrate

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Keywords: Hydrophobic; Hardness; Roughness; Aluminum; Morphology

The development of a superhydrophobic surface on an aluminum substrate as a self- cleaning surface has been carried out. In the research, a superhydrophobic aluminum surface was fabricated using a combination of boiling and STA modification technique which is environmentally friendly. The specimens in circular shape with a diameter of 14 mm were cut from a 1 mm thick aluminum sheet and were then cleaned using ultrasonic cleaner. Afterward, the specimens were boiled for 10 minutes in water. Following this, the specimens were immersed in STA-ethanol-deionized water solution at a temperature of 60o for 5, 10, 15 and 20 hours.

Surface morphology, roughness, and hardness of the superhydrophobic aluminum surface were examined. The surface morphology analysis presents the existence of rough microstructure on the coated aluminum surface. While the roughness value increase with the increase of immersion times, the surface hardness value does not appear to change significantly for immersion time up to 15 hours and slightly decrease for the longer immersion time. The water contact angle of 133o and rolling angle of 13o was achieved which indicates the superhydrophobicity of aluminum surface has been obtained.

[ABS-749]

Comparison of Multi Layered Percepton and Radial Basis Function Classification Performance of Lung Cancer Data

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Keywords: Lung Cancer; Datasets; Multi Layered Perceptron; Radial Basis Function; Classification

Lung cancer was the most commonly diagnosed cancer as well as the leading cause of cancer death in males in 2008 globally. The way used to detect lung cancer are through examination chest X-ray, Computed

Tomography (CT) scan, and Magnetic Resonance Imaging results. The accurate and efisien analysis of the imaging results are important to ensure the minimal time processing. A computed assisted diagnosis system is the

crusial research which can conduct the analysis efficiently and efectively. This paper aimed to compare the classification performances of Multi Layered Perceptron (MLP) and Radial Basis Function (RBF) techniques. The public lung cancer datasets was used as

training and testing data in the classification techniques. Ten fold cross validation was used for dividing data before classifying techniques. The accuracy performances are compared to check a better technique for classification step.

[ABS-750]

Object Tracking System on Ultrawide Video from Double Camera using Motion Detector

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Keywords: Object Tracking; Image Stitching; Motion Detector; Image Processing; Video Processing

This research aims to design, test, and analyze the object tracking application system using a motion detector method that is able to take the output image of several cameras by combining the output images of the two cameras into a wider field of view (FOV). This research uses 2 cameras, i3-6006U laptop camera and Logitech C270 HD webcam using OpenCV and python programming language. The stitching results from the initialization of the two cameras are able to detect the

motion of objects performed on panoramatic videos in realtime by showing time in detail starting from days, dates, hours, minutes and seconds. This object tracking application system has been tested in Adi Sucipto airport exactly in the area of arrival and departure of passengers. The system can detected the motion in the stitching images by exploring it in red rectangular in the real time video

[ABS-1006]

The Outcomes of Invitro Fertilization and Embryo Transfer in Endometriosis-Associated Infertility: A Case-Control Study

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Keywords: Endometriosis; Embryo Transfer; Infertility; in Vitro Fertilization; the Pregnancy Rate

The pathophysiology of infertility in endometriosis is still controversial and widely investigated. Several mechanisms are put forward. Whether In Vitro Fertilization-Embryo Transfer program is a solution still need further study. This research purpose is to compare the output of in vitro fertilization-embryo transfer between endometriosis infertility and non-endometriosis infertility. This a case-control study was followed by fifty endometriosis-associated infertility patients and fifty infertility due to tubal factor and or sperm undergoing In Vitro Fertilization-Embryo Transfer at Permata Hati Clinic, Dr. Sardjito Hospital Yogyakarta.

The research output is fertilization rate, number of the good quality embryo and the success of pregnancy based on the pregnancy test. Data analysis was done by a statistical test of T-test and Chi-Square. Multivariate analysis was done by logistic regression. The number of good quality embryos in endometriosis group was lower (2.34 more or less 2.33 vs 3.44 more or less 2.97; $p < 0.05$), but the fertilization rate was same (48.58 more or less 27.16 vs 55.19 more or less 30.9; $p > 0.05$). Compare to non-endometriosis, endometriosis group had bigger risk of pregnancy failure (OR 3.758, CI95% 1.11 until 12.68, $p < 0.03$).

[ABS-497]

Age and Sex Distribution of Reported Dengue Hemorrhagic Fever in Sleman Regency, Special Region of Yogyakarta, Indonesia

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Keywords: Dengue Hemorrhagic Fever; Distribution; Age, Sex

Dengue Hemorrhagic Fever (DHF) is a disease that has a rapid geographical spread and the number of incidents is increasing. The disease is transmitted through the bite of *Aedes aegypti* or *Aedes albopictus* which sucks human blood during the day so that the transmission might be related to human activities. Human activities are related to age and sex. This study aims to analyze descriptively about the incidence of dengue based on age and sex. Secondary data in the form of data on DHF patients with their age and sex in the period of 2008-2013 were obtained from the Health

Office of Sleman Regency, Yogyakarta, Indonesia. The results showed that (1) aspects of age group: toddlers and children 5-14 years old ranged from 23.39% - 40.20% (35.68%), and 15 years old (adults) ranged from 47.90% - 66.13 % (51.39%). The sex aspect: it appears that male patients 770 (52.13%) were slightly higher than female 707 (47.87%). It was concluded that the incidence of DHF in Sleman Regency in the period of 2008-2013 was higher in adult and slightly higher in the male.

[ABS-753]

Knowledge and Attitudes of Radiology Officers on Compliance with Standard Procedur Operational

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Keywords: Knowledge; Attitude; Obedience; SOPRadiology

Occupational health and safety in the hospital environment are still low and have not become a priority for hospitals. Health workers are workers who are at risk of occupational illness and occupational accidents in hospitals, one of them in the field of radiology. Awareness and adherence to occupational health and safety SOPs are needed. The SOP in the radiology department is a preventive measure against the side effects of radiation use. Radiology officers must have a positive knowledge and attitude towards the radiology SOP to be able to adapt to the environment so that they can apply the SOP well and last long. The purpose of this study was to determine the effect of knowledge and attitudes of radiology officers on compliance with radiological occupational health and safety SOPs. The

method used in this study is quantitative descriptive. The populations in this study were 13 people. Non-probability sampling is done through saturated sampling. Data analysis of this study was carried out through the Pearson Product Moment correlation test and multiple correlations. The significance value of knowledge on compliance with the application of SOP is 0.030 (sig <0.05), the correlation is 0.616, the significance of attitudes toward compliance with the application of SOP is 0.011 (sig <0.05), and the correlation is 0.746. The significance value of knowledge and attitudes towards compliance with the application of SOP is 0.046. This shows that there is an influence between the knowledge and attitudes of radiology officers on SOP compliance.

[ABS-754]

Conversion of Flare Gas to Liquefied Petroleum Gas (LPG) at Pertamina RU III Plaju Palembang

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Keywords: Flare Gas; Gas to Liquid (GTL); Liquid Petroleum Gas (LPG); CO2 Emissions; ASPEN HYSYS

Activities in the oil and gas industry have some impacts on environment through flare gas. Flare gas occurs as the combustion products of natural gas are vented into atmosphere. These products increase carbon dioxide and greenhouse gas emissions which contribute to global warming. Indonesia has participated in accelerating the reduction of gas flares in oil and gas activities through the Zero Routine Flaring by 2030 initiated by the World Bank. In 2017, the volume of flare gas in Indonesia was approximately 170 MMSCFD. The object of this study is flare gas in Pertamina RU III Plaju Palembang which has three flare stacks and produces

about 0.84 MMSCFD of flare gas. The flare gas, consist of hydrocarbon components of high economic value if it is conserved and processed further. Using Gas to Liquid method, flare gas can be converted into Liquefied Petroleum Gas which is of valuable use domestically. The simulation was performed using ASPEN HYSYS with three stages of compressions, three coolers and two separators. The simulation for Crude Distillation Gas Plant unit show that 263.83 barrels/day of LPG can be produced from 290.72 barrels/day of flare gas with a composition of 16.48% propane, 55.73% butane, 17.46% pentane.

[ABS-243]

Medical Students Perception on Altruism

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Keywords: Altruism; Perception; Professional Behavior; Medical Students; Medical Profession

Altruism is the important attribute for medical doctor and other health professional. The behavior of altruism must be understood and trained in the early stage of medical education. The aim of this study is to know perception of medical students on altruism. This study was a qualitative study with involve 24 medical students as informant. Data were collected using in depth interview and focus group discussion. Qualitative data were analyzed using constant comparative method. The results of this study revealed 90 meaning units, 16 themes and five final themes. The final theme consists of: 1) altruism and attribute of medical professionalism,

2) altruism and influential factors, 3) Altruism of medical student, 4) medical profession from a student perspective, and 5) altruism and malpractice. In conclusion, altruism and medical professionalism is important attribute of medical profession. There are many factors that can influence medical students altruism, it can be internal or external factors. Medical students have various level on altruism and we can assess the degree of altruism of medical students through their understanding on medical profession. A low degree of altruism of doctor may cause unexpected things such as malpractice.

[ABS-755]

Development and Analysis of Power Generation from Flare Gas at Pertamina RU III Plaju Palembang

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Keywords: Flare Gas; Heat Recovery Steam Generator; Heat Exchanger; Thermo-Flow; Thermal Power Plant

Nowadays the world is facing global warming as one of its main issues. This is mainly caused by a rise in carbon dioxide and other greenhouse gases concentration in the atmosphere. Flaring is one of the major causes, in 2017, 141 billion cubic meters of natural gas was flared. For archipelago nations like Indonesia, global warming have great negative impacts which include environmental degradation, health implications and economic effects. This study is intended to develop a feasible measure to conserve flare gases. The energy of the flare gas is converted into mechanical energy through thermal power plant. The properties of gas flaring were

obtained from Pertamina, Plaju, Palembang. Two possible plant configuration scenarios were developed, simulated using Thermo-flow and the results were compared. Both configurations employ the combined cycle concept, where a Brayton cycle is coupled with a Rankine cycle. The main difference between the two configurations is that configuration 1 uses a Heat Recovery Steam Generator whilst the second uses common Heat Exchangers in-between the gas turbine and the Rankine cycle. The results show that configuration 1 would generate 29.18 MW whilst configuration 2 would generate 24.623MW.

[ABS-759]

Immunomodulatory Activity of Steroid Saponins in *Dioscorea alata* L. Tubers in Silico

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Keywords: Steroid Saponins; *Dioscorea alata* L.; In Silico; Immunomodulators; Clionasterol

Steroid saponin in the tuber of *Dioscorea alata* L. has the potential to have immunomodulatory activity. The purpose of this study was to examine the immunomodulatory activity of steroid saponins in *Dioscorea alata* L. tubers in silico. This observational study was conducted using steroid saponin compounds as a result of GC-MS test N-hexan extract, Clionasterol with comparison of native ligand (Celecoxib) which was carried out molecular docking using COX-2 receptors with Chimera software. The docking process uses a protein with the code: 3LN1, which is the active side of

the COX-2 receptor which binds to celecoxib (a drug that selectively binds to the COX-2 receptor). Validation results between COX-2 receptor proteins binding to native Ligand (Celecoxib) show Lower Bond RMSD values below 2 Å (1,634 Å). Validation results between COX-2 receptor proteins binding to Clionasterol show Lower Bond RMSD values below 2 Å (1,694 Å). This proves that there is no significant shift during the docking process, so the docking process is valid. It was concluded that steroid saponins in *Dioscorea alata* L. tubers had immunomodulatory activity in silico.

[ABS-1273]

Comparison Real Costs with INA-CBGs Rates Patients Diabetic Mellitus Type 2 in Out Patient Unit of X Gunungkidul Hospital

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Keywords: Type 2 Diabetes Mellitus; Outpatient Care; Real Costs; INA-CBGs Rates

This study is an observational analytic with a hospital retrospective study. The purpose of this study was to determine the difference between real costs and INA-CBGs rates in patients with type 2 diabetes mellitus in the outpatient unit of X Wonosari Hospital. The study subjects who met the inclusion criteria were 62 medical records where the inclusion criteria in this study were patients with ICD 10 E11.8 diagnosis codes who visited the hospital in January 2018 to December 2018. The

results of the descriptive statistics of this study show that the average real cost of type 2 diabetes mellitus patients is IDR 233.428,16. The average difference in real costs with the rate of INA-CBGs is IDR - 48.428,16. The conclusion of this study is that the real cost of patients with type 2 diabetes mellitus is greater than the rate of INA-CBGs in the outpatient unit of PKU Muhammadiyah Wonosari Hospital.

[ABS-763]

Different Effects of Testosterone to the Expression of Endothelial COX-2 in Normal and High Glucose Environment

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Keywords: Testosterone; Endothelial Cells; HUVEC; COX-2

Cardiovascular diseases (CVD) are more frequently occurred in age-adjusted male subjects than female ones. It is suggested that testosterone (T) may contribute to the cardiovascular events, which is initiated by platelet adhesion, activation and aggregation. Endothelial cells (EC) prevent platelet activation and adhesion by synthesizing and releasing thromboregulator agents, including prostacycline (PGI₂). Activity of cyclooxygenase (COX) enzyme is needed to catalyze conversion of arachidonic acid into prostaglandin, including PGI₂. This study aimed to examine the influence of T to the expression of COX-2 in EC, in either resting (normal glucose environment) or stimulated (high glucose environment). We performed an in vitro experiment using human umbilical vein endothelial cells culture (HUVEC) with 2x4 factorial design. T was exposed to HUVEC in incremental doses: 0, 1, 10 and 102 nM in either normal glucose (5.6 mM) or high glucose (22.4 mM) concentration in treatment medium. Expression of COX-2 was measured using immunocytochemistry. Data were analyzed using

independent t-test, one-way ANOVA and analysis of variance 2x4. P value <0.05 was considered significantly different. Percentage of EC positively stained with anti COX-2 antibody in NG medium without T was significantly lower than those with 1 nM, 10 nM and 102 nM T. Percentage of EC positively stained with anti COX-2 antibody in HG medium without T was significantly higher than those with 1 nM, 10 nM and 102 nM T. Exposure of T in incremental doses in either NG or HG medium significantly influenced percentage of EC positively stained with anti COX-2 antibody. There was main effect of glucose medium or T to percentage of EC positively stained with anti COX-2 antibody. Moreover, there was interaction between T and glucose medium to percentage of EC positively stained with anti COX-2 antibody. In conclusion, testosterone increases expression of COX-2 enzyme in resting endothelial cells (normal glucose environment) but decreases significantly expression of COX-2 enzyme in stimulated or activated endothelial cells (high glucose environment).

[ABS-1021]

Effect Quenching and Variation Tempering Temperature at 200, 300 Celcius towards Corrosion Rate of Martensitic Stainless Steel

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Keywords: Heat Treatment; Quenching; Tempering; Corrosion

This study present the effect heat treatment Quenching and Tempering on martensitic stainless steel material. The heat treatment Quenching is done at 1020 Celcius of temperature within 60 minutes holding time. In this treatment oil SAE 40 is used as cooling media. As for maintaining the toughness of the material, Tempering is applied at 200 and 300 Celcius of temperature within 45 minutes holding time. Then, the material is cooled down using air at temperature room. The results showed

the Quenching treatment increases the material hardness by 192 percent compared to the base material. And with the tempering treatment the hardness of the material is slightly decreases, but still above the material without heat treatment. Futhermore, the corrosion rate decreases significantly by 47 percent. Therefore, the heat treatment, Quenching and Tempering, on martensitic stainless steel has greatly reduce the corrosion rate of the material.

[ABS-1279]

The Analysis of Determinan Factors Affecting Patient Safety Culture in Hospitals

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Keywords: Patient Safety; Determinant Factors; Hospital; Patient Safety Culture

Patient safety is a very important and fundamental thing in the daily activities of the hospital. This is one measure of the success of a hospital in carrying out its policies so that patients feel safe, comfortable and satisfied. This paper aims to identify determinant factors that influence the patient safety culture at the hospital. The literature search procedure to answer the problem is by searching the library online using the Pubmed search instrument, Cochrane Library, Google Scholar, Google and the relevant text book. The keywords used are "patient safety", "patient safety culture", "hospital", "determinant factors in patient safety culture", and "patient safety dimensions" using limits, studies conducted at the hospital to hospital employees,

publications English and Indonesian, the last 10 years publication. With the search method, initially there were 30 articles, 22 of which met the criteria, published until 2018. The results of the analysis from the literature review show that the patient safety culture is influenced by various determinant factors, including perceptions of management, work team support, work stress, job satisfaction towards the patient safety culture in the hospital. These factors were assessed by using some international standardized questionnaires such as the Safety Attitudes Questionnaire (SAQ) and questionnaire from the Agency for Healthcare Research and Quality (AHRQ). Leader factors in hospitals play an important role in the realization of a patient safety culture.

[ABS-821]

Optimization of Police Mobile Brigade Corps Sentiment Analysis Based on Twitter Using Algorithm SVM and NB With PSO

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Keywords: Brimob; Korps Brimob; Mako Brimob

Brimob is a special operating unit that is a paramilitary property of the Indonesian National Police. The Brimob Corps is also known as one of the oldest units in the Polri organization. Currently, the national police corps brigade is busy being discussed in the real world and cyberspace, especially on social media twitter. Many opinions about the national police corps brigade so that there are positive and negative opinions Social media Twitter is now one of the places to disseminate information about the national police corps brigade. In the previous study, the maximum accuracy was still lacking The case of this study uses text mining techniques with the support vector machine (SVM) and

Naïve Bayes (NB) methods with Particle Swarm Optimization (PSO) with the addition of 150 datasheets NB having an accuracy value of 85.67% with AUC 0.818 while NB PSO obtaining 89.69% accuracy with AUC 0.875. SVM has an accuracy value of 93.40% with AUC 0.981, while SVM PSO has an accuracy value of 94.85% and AUC 0.978. The best optimization application in this model is the SVM PSO can provide solutions to classification problems in this case sentiment analysis. SVM PSO algorithm provides a solution for analyzing sentiments from the content of various online media news optimally.