

## **ABSTRACT**

*In the present era many industries are growing along with the increasingly modern technology. Regardless, a power plant industry is severely affected by installations built into the industry. The installation that has an important role is the installation of piping systems. Therefore, the industry needs software that can help in planning the installation of piping such AutoCAD Plant 3D. The purpose of modeling using AutoCAD Plant 3D version 2018 software is to produce 3D images that include general plant, equipment, piping, and issued a report in the form of bill of material and calculate the weight estimation of components, equipment and structure.*

*The method used in modeling using the first AutoCAD Plant 3D software is to model Equipment, followed by routing the pipeline by connecting each equipment. Next is to make a pipe rack from the pipeline. The last stage is calculate the weight estimation of components, equipment and structure.*

*After re-modeling using AutoCAD Plant 3D version 2018 software, it can be concluded the result of modeling is 3D form of equipmet that is: C-101 (coloumn), C-102 (coloumn), E-101 (heat exchanger), E-102 ( fin fan), P-101 A, B (pump), P-102 A, B (pump), P-103 A, B (pump), T-101 (tank), T-102 (tank), V- 101 (vessel) and V-102 (vessel). Other modeling results are 24-pip piping, general plant, 24-inch isometry image , pipe rack with length 692.6 m, size 14 × 117 HP, weight estimation of 216503,23 Kg and Bill of material containing data about pipe component quantity , component type, size and standard.*

*Keywords : AutoCAD Plant 3D versi 2018, Bill of Material, Equipment, General Plant, Modeling, Piping*