INTISARI

Jaringan *wireless existing* di Universitas Muhammadiyah Yogyakarta Gedung F1 dan F4 berdasarkan parameter *Path Loss, Signal Strength/Isotropic Receive Level* (IRL), dan *Signal to Noise Ratio* (SNR). Dilakukan penelitian menggunakan metode perhitungan COST 231 *Multiwall Indoor* dan pemodelan *Ekahau Site Survey*, kemudian dianalisis dan dibandingkan dengan standar acuan kualitas jaringan dari parameter yang ada. Pada penelitian ini disimpulkan bahwa kualitas jaringan pada Gedung F1 dan F4 berdasarkan RSSI terbagi menjadi 3 kategori, Sangat Baik (-57 dBm sampai -10 dBm), Baik (-75 dBm sampai -58 dBm) dan cukup (-85 dBm sampai -76 dBm). Sedangkan kualitas jaringan berdasarkan SNR untuk jarak dekat adalah *Excellent* (>40 dB), jarak sedang adalah *Low Signal* (15 dB – 25 dB) dan *Very Good Signal* (25 dB 40 dB), jarak jauh *Very Low Signal* (10 dB – 15 dB), *Low Signal* dan *Very Good Signal*.

Kata Kunci:*Jaringan wireless, Path Loss, IRL, SNR, COST-231 Multiwall Indoor, Ekahau Site Survey*

ABSTRACT

The existing wireless networks at Muhammadiyah University of Yogyakarta Building F1 and F4 are based on Path Loss, Signal Strength / Isotropic Receive Level (IRL), and Signal to Noise Ratio (SNR) parameters. The research used the calculation method of COST 231 Multiwall Indoor and Ekahau Site Survey modeling, then analyzed and compared with the network quality reference standard of the parameters. In this study it was concluded that the network quality in Building F1 and F4 based on RSSI is divided into 3 categories, Very Good (-57 dBm to -10 dBm), Good (-75 dBm to -58 dBm) and enough (-85 dBm to -76 dBm). While the quality of network based on SNR for short distance is Excellent (> 40 dB), medium distance is Low Signal (15 dB - 25 dB) and Very Good Signal (25 dB 40 dB), long distance Very Low Signal (10 dB - 15 dB), Low Signal and Very Good Signal.

***Keywords**: Wireless Network, Path Loss, IRL, SNR, COST-231 Multiwall Indoor, Ekahau Site Survey*