ABSTRACT

In this thesis, analysis of the performance of Telkomsel 4G LTE site in purwokerto area which aims to expand coverage. In this thesis is done measurement measurement of drive test by looking at signal signal value SINR (Signal to Interference Noise Ratio), RSRP (Reference Signal Received Power). If the drive test is done after it is done to analyze the quality of 4G LTE network in purwokerto. from the result of drive test analysis in purwokerto area there is still bad site because there is bad area because there is bad spot area and the existing result in software atoll area surface less from 100 km$^2$. In order to maintain the quality of customer communication as well as to maintain and improve network quality, regular monitoring is required. The problems that need to be optimized on azimuth, and mech tilt. In the azimuth optimization the RSRP range value from (-80) s / d (-150) dBm obtained total coverage of 79.313 km$^2$. And the value of the SINR range from (20) s / d (-20) dB obtained total coverage of 90.045 km$^2$, and at mech optimization. tilt. The RSRP range values (-80) to -150) dBm resulted in total coverage of 127.028 km$^2$, and the range of SINR from (20) s / d (-20) dB obtained total coverage of 150,333 km$^2$. 

Keywords: LTE (Long Term Evolution), SINR (Signal to Interference Noise), RSRP (Ratio Reference Signal Received Power), Azimuth, Mechanical Tilting.