

ABSTRACT

The needed of data services and to have good quality of signal in cellular network become an important things nowadays, especially in public place, like Jakarta Kota Railway Station. so, everyday there are thousands people come to Jakarta Kota Railway Station and to get increasing in request of data service, so that need bigger capacity than before. Based on that situation, needed for a reliable fast data and voice communication access service, so be expected supply for data and voice communication visitor and passenger at Jakarta Kota Railway Station.

This final project conducted about Indoor Cell Building HeNB(femto) LTE Planning at Jakarta Kota Railway Station. In starting the planning, should done walk test about some parameters, such as RSRP and SIR. Then, do the network planning and compare the result with the previous result. For to get accuracy in the calculation radio wave so, propagation modes COST-231 Multiwall for in this final project.

The result in this planning have 4 scenario. From result RSRP of the simulation for scenario 1 the value are -37.6418 dBm, Scenario 2 the value are -37.7618 dBm, Scenario 3 the value are -37.7718 dBm and scenario 4 the value are - 37.8818 dBm. For SIR value scenario 1 the value are 2.53 dB, Scenario 2 the value are 2.42 dB, Scenario 3 the value are 2.23 dB and Scenario 4 the value are 2.13 dB. The result from the simulation of LTE Indoor Planning is already standard the KPI (Key Performance Indicator).

Keywords : LTE, Coverage Planning, Capacity Planning femtocell