

ABSTRACT

The quality of mobile network in the building becomes an important requirement to fulfill LTE technology service, inside enclosed place with building wall and density of building construction causing signal from eNodeB received by UE inside building is not equal to outside building due to signal attenuation. The main cause is the attenuation that prevents the eNodeB signal emitting as experienced in the Plaza Parahyangan building Bandung.

In the Indoor network planning LTE is done to overcome the damping problems that occur in the review area by performing calculations based on coverage and capacity, to obtain the number of indoor antennas required. This plan uses Radiowave Propagation Simulator application program with displaying parameter value of RSSI and SIR parameter value with using operator smartfren LTE 850 Mhz FDD.

The result of indoor network planning LTE at Plaza Parahyangan Bandung obtained simulation results for the parameter values of RSSI on the ground floor, 1 to 5 respectively -43.16 dBm, -47.47 dBm, -44.04 dBm, -42.61 DBm, -41.49 dBm and -43.16 dBm and for the SIR parameter values obtained from the simulation results on the ground floor, 1 to 5 respectively 17.28 dB, 12.68 dB, 10.51 dB, 10, 09 dB, 11.22 dB and 11.63 dB. The results obtained from this plan have achieved the standard target of RF parameters used by operator smartfren.

Keywords: Indoor Planning LTE, Coverage Planning, Capacity Planning, RF Parameter, Plaza Parahyangan Building Bandung.