

ABSTRACT

Increasing data user service of 3.5G HSDPA technology and mobility happened in new building In Polytechnic Of Bandung asked to give assuring good quality. Quality assuring for user include availability of area coverage each user mobility who may go on communication to continue.

In this research it's done design and simulation of signal coverage at New Building In Polytechnic Of Bandung. On simulation progress, it use RPS 5.4 (Radio Propagation Simulator) with indoor propagation model used is COST231 Multi Wall Model. To get number of antenna in order to be simulated, with doing link budget calculation and it is gotten number of antenna is 9 pcs which is needed to cover area in new building .

Output of simulation is a picture of area coverage each floor in new building with using parameter is signal strength and comparison between signal and interference. From output of simulation is done, so it can be made a conclusion that more than 95% all of area get signal strength more than -80dBm with signal to interference ratio more than 25% is 30dB. Signal to interference ratio is happened become smaller if transmit power of antenna is high and location of antennas is too near.

Keyword : HSDPA, *link budget*, *COST231 Multi Wall*