

## ABSTRACT

Observation result indicate that communications radio channel of cellular in the reality also have big contribution to system performance. This case can be proved just for example at transmission line between receiver and transmitter able to change sudden from position initially having the character of line, becoming at all blocked by building construction, mountains or hill and grove, along with direction movement of plane or communications of mobile phone. This final project studying about simulation of Lee loss path at network propagation of cellular.

Lee path loss prediction represent model of propagation owning elementary concept of electromagnetic wave propagation, what according to general earn become three section, reflection, diffraction and scattering. This model be show for the prediction of power signal in certain receiver location node, or in certain local region is so-called sector, like : area open, area urban, sub. area urban and free space, with method which vary widely in its, complication and also his accuracy. And model of Lee path loss also earn power signal in a few sector in the same time at network of cellular GSM and CDMA, but final project only discussing in GSM network.

Manually if as doing calculation of power receive and loss at distance of  $r$  from transmitter above will need time old ones and result of inaccurate calculation which caused by the existence of roundings in its calculation and also mistake in calculation, to water down time efficiency maximization and scheme hence will be more be good if predicting power signal of propagation use simulation.

**Keywords :** Communications System Mobile, Radio Wave Propagation at Network of Cellular, Model Lee *Path Loss*.