

ABSTRACT

In the development of cellular technology towards 5G technology that supports high data transfer speeds, a good communication network needs to be applied in all outdoor and indoor conditions. Indoor cellular network system is a very important requirement in a closed environment in the form of a building. When the signal strength issued by BTS Macro is weak to enter a building, indoor cellular network planning is required. Like at PT. Sutanto Arifchandra Electronic is a cable company that has a tall building and has a lot of high barriers, therefore the strength of the incoming signal is weak and there is a blankspot so it is necessary to plan an indoor cellular network where to support the work activities of employees which are required to send data faster to Quality Control Electronic staff based on the Multi-Wall COST 231 Propagation model, using Radiowave Propagation Simulator 5.4, from the coverage calculation results it requires a minimum of 1 FAP and this simulation uses 3 scenarios, the best scenario is scenario 2 where 1 FAP is placed in the middle side of the wall), produces a signal power level of -25.60 dBm.

Keyword : Femtocell Access Point, Coverage, Radiowave Propagation Simulator.

