## ABSTRACT

A good signal in the building is one of the important and interesting in the mobile cellular subscribers. Usually, the network's coverage may not cover outdoor in a multistory building and has many rooms inside. Capacity data and a greater ability of the UMTS network to provide data services at high speed is very important that the needs of the mobile network.

Telkom polytechnic building is one of the buildings that have many rooms and a multistory building that will result in weak signal UMTS network in the building. Whereas, that building can accommodates about 2000 students and constitutes study plates with based on information technologies. Therefore, the communication network is necessary both as a support in communicating. To resolve the issue need to wake up in a mobile UMTS indoor network.

The purpose of writing this final project is the design indoor UMTS network for all rooms and to simulation in 3D using software RPS (Radio Propagation Simulators). Simulation this will give a level of power to the antenna scattered throughout the room in the building.

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