ABSTRACT

For mobile cellular user, always being covered in signal coverage is a must. It will not be a problem, if the user is outdoor. On the other hand, when the user position is inside a room, the network ability in covering user will be questioned. Furthermore, at present, people want the network can give a service with high speed data access also high capacity, just like the UMTS offered (known as 3G).

Institut Manajemen Telkom, Gegerkalong campus, is a high-rise building that is place for the higher academic's level of student. There is about 2700 active students in that campus. The building capacity is about 1500 students. The condition that mention before require an indoor UMTS network. So that, the communication process may work properly.

In this project, the indoor UMTS network is going to be planned for Institut Manajemen Telkom building. Also, there will be a simulation in 3D shape for the planning result. At the end, the UMTS network signal will be transmitted well inside the building dan the signal power level can be showed in covering the building.

Key Words : UMTS, *indoor,* RPS, *Receive Signal Level*