## **ABSTRACT**

WipLL (Wireless IP Local Loop) is a kind of point to multipoint system in a big capacity that uses radio network (wireless), where the user position is permanent and identify by the IP (Internet Protocol). The operation range from the WipLL can reach out for 10 Km (LOS). WipLL can supply data service and voice in a fix platform to using in a metropolitan city. WipLL system is good to serve all the communication between Bali's government agency that located in Denpasar. IP usage for the user identification is one of the excess than can make all the phone and computer sets of equipment possible to communicate in voice as well as data transmission (internet). Beside that, the modular equipment is facilitate in operation and maintenance system.

In this final project will plan a WipLL system that can serve information exchange system between Bali's government agency that located in Denpasar. After that, will be an analysis of the planning result in the transmission parameter things, so can make an optimal planning result to apply in the reality.

The planning of WipLL network will consists of : demand identification, service area coverage, IP planning, and configuration setting and WipLL network design. Meanwhile, to know the performance of WipLL network so will be done analysis that involved power link budget, and transmition loss.