## ABSTRACT

Rapid development of relevant technologies were made during the last decade has enter the deployment of 3rd generation, namely UMTS (Universal Mobile Telecommunication System). It is designed to provide services compatibility to any kind of user and deploying global access to any part within this world.

Those rapid growths of communication and user mobility on terrestrial network have requiring the service continuity, especially for the cellular one. Premature termination of an ongoing call is more frustrating than not being able to start a new call due to the lack of resources in the network. Therefore it generally accepted that handover users should be given priority over new users in resource allocation.

The unexpected termination within handover procedure to achieve the cell target is known as handover failure. Commonly, it can caused by the lack of network resources and the limitation of coverage area.

This project will observe how to reduce handover blocking probability within terrestrial network by integrate it with the satellite one and analyze the overflowed traffic that occurred.