## ABSTRACT

The Development of information communication Technology makes new interesting applications to enjoyed by users. The Purpose of Third Generation (3G) Cellular Communication system integrates many communication services and information such as Data communication with high rate, access and video traffic and multimedia in totality. Universal Mobile Telecommunication System (UMTS) Network are being new technology which tries to prove its existence with some innovation Multiple Access technology Multi-band, Wideband Code Division Multiple Access (WCDMA).

With increasing number of user that grow in system so increases the interference level in the sistem. In this research, will do the simulation Admission Control Algorithm which determine number of active user can handle by system and how that algorithm persist Services quality by sistem for ongoing call in system with the admitting new call. The Focus on signal quality is interference level that influence admission control process. Performance from a cellular radio nerwork depend on number of interference on system.

The Simulations expected can support asumsion that downlink performance can be proved with planning fitur with this admission control algorithm, so in the future can be applicated for increasing the way or control network method to be more efficient and optimal, the best thing is system can maximize capacity and without decrease quality.