

*Abstract*

This thesis discusses the Radio Resources Management (RRM) of Wide-band Code Division Multiple Access WCDMA in 3G mobile system UMTS (Universal Mobile Telecommunication System). Recently the mobile communication industry made a great boost in the financial market and became one of the most guaranteed successful investments in the world market. To guarantee the continuous success of these investments and hence the profits mobile operators must be able to stand up for the demands of the end users which usually consider high speed internet access, great voice quality and other entertaining services such as interactive games and others. The challenge that faces the researchers in our field is the limitation of the radio resources, and reaching the bottle neck of the resources will cause the instability of the services. WCDMA/UMTS RRM was the key fact of arranging and managing these resources to guarantee the services reaching the end user and increase the profits of our investments. This proportionality between the RRM and profit makes RRM worth a topic to study in this project.