# UNIVERSITI TEMPOLOGI MARA

PERFORMANCE EVALUATION
OF SCHEDULING STRATEGIES IN
VARIOUS ENVIRONMENTS FOR LTE NETWORK

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MASTER OF SCIENCE IN TELECOMMUNICATION
AND INFORMATION ENGINEERING

MAY 2011

### UNIVERSITI TEKNOLOGI MARA

Performance Evaluation
of Scheduling Strategies in
Various Environments for LTE Network

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Thesis submitted in fulfilment of the requirements for the degree of

Master of Science in Telecommunication and Information Engineering

#### **ACKNOWLEDGEMENT**

بِنَ مِلْكُولَا لِأَكْمِنِ الْجَيْمُ

In the name of Allah, Most Beneficent, Most Merciful.

This Master thesis project is a final milestone for me before completing the Master of Science in Telecommunication and Information Engineering studies in Universiti Teknology MARA (UiTM). The hard work and challenging in exploring a new mobile network technology, LTE has now come to the end. Personally, I am getting impressed with this pioneer technology which currently continuously rising its popularity in the mobile broadband world.

First and foremost, I would like to dedicate this work to my beloved wife, Kasmalisa Othman who is continuously support and giving best understanding not only in completing this thesis project but also throughout the MSc studies. Special thanks to her for the best support.

I would like to thank also to my father En Samsuddin Bin Mohamad who is giving me moral support in continuing my MSc studies. Under supervision of Ir. Muhammad Bin Ibrahim who provided me the guidelines and support in doing this research, I am really appreciate of his precious recommendation which help me a lot in moving ahead with my research. Not to forget, my senior colleague in Alcatel-Lucent En Elias Jailani, En Mohd Jaki Yaacob and En Yusof Ikhsan who also share their technical knowledge and experience in LTE network. Thank you all.

#### **ABSTRACT**

The great demand in connected mobile broadband lifestyle has evolved the new mobile technology standards called Long Term Evolution (LTE). With high system capacity/throughput and low latency requirement from 3GPP, scheduling strategy is one of the key elements that maintain the performance of LTE system besides upgrading the channel bandwidth and MIMO antenna technology. Due to the limitation on actual LTE networks, simulation is an option to evaluate the performance of available scheduling strategy. In this paper, performance of various scheduling strategy was evaluated and optimum scheduling strategy was proposed by simulation in low, medium and high density environment with several base station configuration in specific size of users.

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