

UNIVERSITI TEKNOLOGI MARA

**INTERFERENCE MITIGATION FOR OPTIMIZED
DEPLOYMENT IN LTE FEMTOCELL NETWORK**

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ABSTRACT

Recently, various services and applications running over the wireless Telecommunication Provider (ie Celcom, Maxis, Digi) in order to provide solution for a better coverage and performance to users. A femtocell is a new form of access technology in Long Term Evolution (LTE) targeted to boost the mobile network performance. Mobile providers improvise coverage and capacity of their network by implement femtocell. A femtocell has it advantage over low power consumption base station which is normally deployed inside the building. Hence, femtocell low power consumption, high speed & high capacity improved signal strength and area coverage. However, in real scenario, few femtocells in mobile network may generate interference along with negative impact to mobile network performance. Throughout this report, final results to this advantage (interference effect) are by Frequencies allocation and Transmitting Power adjustment. The whole LTE femtocell network topology was developed and simulated by using the EXata Qualnet 5.3 software.

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