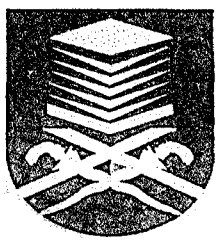
SIMULATION ON WCDMA FOR 3G MOBILE SYSTEMS

Thesis is presented in partial fulfillment for the award of Bachelor of Electrical Engineering (Honours)
UNIVERSITI TEKNOLOGI MARA



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ABSTRACT

The need for the future mobile communication system is to desired high-speed data, video and multimedia traffic as well a voice signals. The technology to fulfill is known as the Third Generation (3G) Mobile Systems. Therefore, from analog technology, there is now Wideband Code Division Multiple Access (WCDMA) for digital technology to fulfill 3G eras.

This thesis analyzes Multi-user effect and determines BER in WCDMA systems using Matlab 5.3.1. The engine model is constructed using block in Simulink Library and fulfill characteristic of WCDMA systems. Gaussian Approximation defined multi-user effect to the systems and used to determine the bit error rate in CDMA, multiple access, and communication systems [1]. Multi-user effect and BER are evaluated at different data rates for multimedia signal.

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