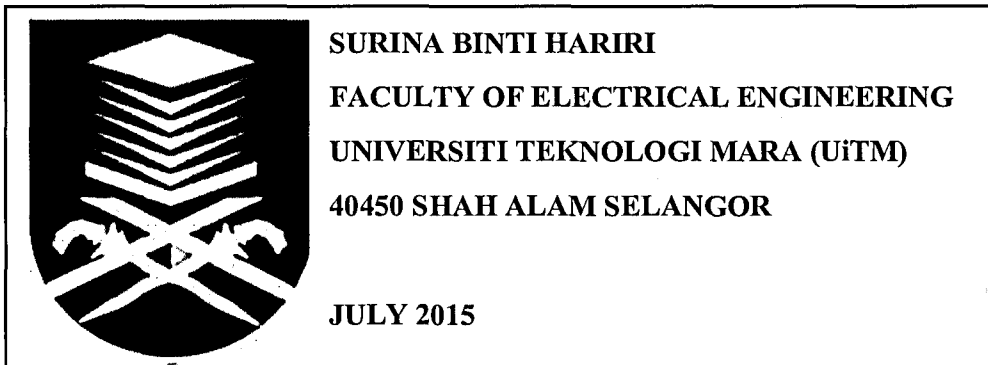


**BER PERFORMANCE OF DFT BASED CHANNEL
ESTIMATION IN MIMO OFDM**

**Thesis is presented in partial fulfillment for the award of the
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ABSTRACT

In mobile communication wireless system, there are always have a problem on the interference happen among the signals, complexity of the transmission system and the effects of spectral efficiency. Orthogonal Frequency Division Multiplexing (OFDM) could eliminate the inter symbol interference (ISI) which give the system highly produced in its best performance. Least Mean Square (LMS) channel estimation and Discrete Fourier Transform (DFT) based channel estimation techniques are applied to the communication system in order to get a better performance by reducing some noise and help to increase the efficiency. The comparison is made by applying Multiple Input Multiple Output (MIMO) OFDM with LMS channel estimation, DFT based channel estimation and with both method combined together. The performance of the system can be enhanced by method combining LMS and DFT channel estimation which it is helpful in giving full achievement in data rate along with high spectral efficiency. The results also holds for multiple antenna system that is applied at transmitter and receiver. The method is simulate using MATLAB and the result will be presented in terms of Bit Error Rate (BER) against Energy Bit per Noise Density (E_b/N_0). The simulation shows the proposed method improvise the performance of the system and limiting the noise as it gives the most lower BER against E_b/N_0 .

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