

IMPROVING TCP PERFORMANCE WITH FORWARD ERROR CONTROL IN WIRELESS LOCAL AREA NETWORKS

This project report is presented in partial fulfillment for the award of the Bachelor (Honours) of Electrical Engineering



NORA MISYA BT. MD. ZAIN
FACULTY OF ELECTRICAL ENGINEERING
UNIVERSITITEKNOLOGI MARA
40450 SHAH ALAM, SELANGOR

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NORA MISYA BT. MD. ZAIN

UNIVERSITI TEKNOLOGI MARA

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ABSTRACT

This project investigate, the performance improvement of applying the Forward Error Control (FEC) for IEEE 802.11b Wireless LAN standard. In the IEEE 802.11b standard, bit error was introduced through the channel noise using Cyclic Redundancy Check (CRC) error protection packet loss could be reduced. Reliable end-to-end connection is provided through higher layer protocols such as TCP, whose performance is severely degraded by the bit error rate in the channel. Network performance was evaluate using two different approaches of FEC implementation, Reed Solomon code, and Turbo code over TCP Wireless LAN.

From the OPNET simulations, can be concluded that both implementations reduce the packet loss and the congestion in the network.

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