ABSTRACT

MANET (Mobile Ad hoc Network) is one example of the use of the Ad Hoc network. Mobile Ad hoc Network (MANET) is a technology in a wireless LAN that does not require the existence of an infrastructure in its network. MANET was required at the places where there is no way to build an infrastructure network as disaster zone, military operation district or a conference which is requiring a faster access to the network.

This final paper already evaluate the comparison between two ad hoc routing protocols which are *Temporary Ordered Routing Algorithm* (TORA) and *Zone Routing Protocol* (ZRP) with simulation using Network Simulator. Parameters which will be compared are throughput, packet loss, Utilization and Delay. In this final project conducted simulations using Network Simulator v2 (NS-2) to assess the network performance of Manet (Mobile ad hoc Network) by using TORA (Temporary Ordered Routing Algorithm) and ZRP (Zone Routing Protocol) routing protocol due to mobility and changes in the number and speed of nodes.

The simulation result show that the highest throughput values obtained by 216, 2319 Kbps in scenario 2, while the lowest throughput values obtained 18, 19854 Kbps in scenario 1. The highest packet loss value obtained 6, 4307 % in scenario 1, while the lowest value of 0,00375 % packet loss in scenario 2. Highest delay values obtained 0, 222013 s in scenario 1, while the lowest delay value of 0, 118759 in scenario 2. The highest utilization value of 1, 45369 in scenario 2, while the lowest utilization value of 0,126556 % in scenario 1.