

ABSTRACT

Vehicular Ad Hoc Network (VANET) is one means of developing inter-vehicle wireless communication technology which enables the exchange of data and making decisions quickly and efficiently, and can be applied anywhere without the use of existing infrastructure backbone.

The process of unsafe driving on the highway tend to increase the risk of accidents, for the VANET technology developed with the aim to minimize the risk of accidents thereby enhancing driving comfort. Vehicular Ad Hoc Network (VANET) is a subset of Mobile Ad Hoc Network (MANET) are especially those used as the mobile network technology.

This final project examines the performance of routing protocol AODV & DSR by Wi-Fi Technology. The research process conducted by a simulation using Network Simulator and other VANET network supporting software. This simulation uses the 802.11 standard, AODV and DSR routing protocol, the TCP transport layer protocol.

Simulation test results show that DSR is the fastest routing protocol in the process of sending data compared with AODV routing protocol. Average value of end-to-end delay on the routing protocol AODV ms range at 19.1364 to 29.7732 ms, while the average end to end delay on the routing protocol DSR ms range at 10.8935 to 26.1599 ms.

Keywords: VANET, AODV, DSR, TCP, average end to end delay, 802.11