

## ABSTRACT

*Vehicular Ad-Hoc Network (VANET) is a development of the Mobile Ad-Hoc Network (MANET) which make the vehicle as its nodes which occur Inter Vehicle Communication (IVC) and Vehicle to Infrastructure (V2I). VANET technology is expected to improve driver safety while driving but VANET has the characteristics of a network is fast changing due to rapid movement of nodes. Therefore, need to be selected routing protocols are considered suitable and efficient delivery of data packets that can run optimally.*

*In this final project is simulated and analyzed the comparative performance Optimized Link State Routing Protocol (OLSR) and Ad Hoc On-demand Multipath Distance Vector (AOMDV) using urban conditions in the area around the red light intersection road Ir. H. Juanda and overpasses Pasupati in Dago area in Bandung for Inter Vehicle Communication. In the neighborhood of the tested scenarios for changes in the speed of the node and the number of nodes. This simulation was done using the NS-2:34 SUMO 0.12.3 equipped with a generator and MOVE mobility as a script generator. Performance was measured using parameters such as Average throughput comparison, Packet Delivery Ratio, Average End-to-end delay, Normalized Routing Load, and routing overhead.*

*From the simulation results obtained that in the routing protocol VANET environment AOMDV superior routing protocol OLSR. Because the Average throughput, Packet Delivery Ratio, Normalized Routing Load, and Routing Overhead tested the scenario changes in the number of nodes as well as the speed of the node AOMDV value better performance with the average value of 442.55 kbps, 88.96%, 1,659, 1,044 while in OLSR has an average value of 436.31 kbps, 85.73%, 2,075, 1,671. This shows that the routing protocols that are reactive AOMDV more efficiently used in urban roads condition that there is more than one intersection and the traffic light in comparison with the routing protocol OLSR proactive.*

Keywords: MANET, OLSR, AODV, NS2, SUMO, MOVE