

## ABSTRACT

One thing that may cause congestion is the lack of communication between vehicles. VANET (Vehicular Ad Hoc Network) is one means of developing inter-vehicle wireless communication technology which enables the exchange of data and making decisions quickly and efficiently. VANET primary goal is to help vehicles communicate with each other in a particular environment.

In this research, will implement analyzing the performance of Vehicular communication protocol TORA on VANET using the Network Simulator 2 (NS-2), mobility generators, SUMO (Simulation of Urban Mobility), and some other help applications. The results of the simulations will be analyzed being a Protocol with performance parameters using average end to end delay. The simulation test results show that TORA routing protocol has a good average end to end delay performance value on the node number change from 40 nodes up to 100 nodes with the value of 26,345 ms to 104,8846 ms, while the good end to end delay At the change of node velocity of 5 m / s - 15 m / s with number of 60 nodes with 31.249 ms delay value up to 74,497 ms.

Keyword: *VANET, TORA, Average end to end delay, Network Simulator*