

## **ABSTRACT**

The development of computer technology and handsets in the field of wireless is growing rapidly. Almost all laptops and the latest handsets are equipped with wireless adapters. Wireless adapter supports with infrastructure mode wireless network or without infrastructure (ad hoc). Wireless networks with infrastructure requires an access point as a base station, while the ad hoc wireless network has no base station.

Mobile Ad Hoc Network (MANET) is formed from the wireless network nodes that are interconnected. All nodes in this network can act as a router that handles a route to every other node. Routes or topology will change based on availability and movement of nodes in the network nodes.

In this final will be the design and analysis of MANET network performance using the Optimized Link State Routing protocol (OLSR) for streaming video multimedia applications. Video codec used is MPEG codec. From the results of the implementation, the parameter values obtained QoS (Quality of Service), namely jitter, packet loss, throughput and delay (one way delay) among others, the average delay in the range 0 - 18.1424 ms, jitter in the range 0 - 14.38348 ms, packet loss in the range 0 - 4.738333 % and throughput at range 0 - 299822.838 bps. This indicates that the network performance has been well built and worth streaming video services.

Keywords: MANET, OLSR, MPEG codec, video streaming, QoS.