ABSTRACT

Wireless sensor network (WSN) is a network that connects devices such as sensor nodes, routers and sink nodes. Each node has the ability to send, receive, and support. In a previous study from the simulation results, the AODV routing protocol was better applied to Wireless Sensor Networks seen from lower delay values, higher throughput, lower routing overhead and also lower energy consumption than the DSDV routing protocol.

This final project is an implementation of a simulation that has been prepared before, namely comparing the AODV and DSDV routing protocol on the Wireless Sensor Network. The AODV routing protocol uses tools such as Nodemcu and DHT11. DSDV routing protocol is a routing method that uses the Bellman-Ford algorithm, this routing uses the Nodemcu and DHT11 tools. In this research, testing of the two routing protocols using the Black Box Testing method and QoS testing (delay, packet loss, and throughput) to determine which routing protocol performance is better.

Based on the results of testing and analysis, using the Black Box Testing method, it can be seen that testing can work in accordance with the planning scenario and provide the expected results. The QoS test results show the average value of delay is equal to 39 ms, packet loss is 0 %, and throughput is 20489 Bytes for AODV. As for DSDV, the average value of delay is 214 ms, packet loss is 0 %, and throughput is 541 Bytes. From these data, it shows better routing protocol () performance.

Keywords: *WSN Network, AODV Routing Protocol, DSDV Routing Protocol, Nodemcu, and Dht 11.*