Abstract

Wireless network topology is divided into two: infrastructure mode and the mode without infrastructure. Has a fixed gateway infrastructure mode (fixed gateway) and inter-connected by cable media gateway. In this topology has a base station that is connected permanently to the cable media. *Mode* without infrastructure or often called *ad hoc mode* is a network that has no fixed routers and all the nodes in this network can freely move and can be connected dynamically in every state. Thus it can be said to be ad hoc network topology has a topology change according to the movement of nodes in the network. Basic characteristics of the ad hoc network is a dynamic topology, giving rise to problems in routing. Routing method used in the ad hoc network is a *reactive routing protocols, proactive routing protocols and hybrid routing protocol*. At the end of this task will be simulated routing protocol ZRP, DSR and DSDV by using a network simulator 2. Performance evaluation of routing protocols in terms of both metric *packet delivery fraction, normalized routing load and routing overhead* with parameter the number of nodes, node movement speed andpausetime.

Keywords: *ad hoc networks, reactive routing protocols, proactive routing protocols and hybrid routing protocol,* ZRP, DSR, DSDV, NS-2