

MAKING THE MANET MORE EFFICIENT IN ENERGY BY TOPOLOGY CONTROL

BHAVANA S. PANSARE & RAJESH B. SINGH

Department of Computer, Sinhgad Institute of Technology, Lonavala, Maharashtra, India

ABSTRACT

The mobile ad hoc network is comprises of nodes which are moving arbitrarily. The node arrangement in the MANET is referred as topology which is temporary or dynamically changed with time according to traffic conditions. The energy efficiency in MANET can be achieved mainly by dynamically adjusting the topology. The proposed technique On Demand Energy Efficient Topology (ODEET) is implemented to combine advantages of two different energy efficient topology approaches namely low traffic network topology and high traffic network topology. In routing process, topology is created dynamically involving smaller no. of nodes awake and other nodes are put into sleep mode by using AODV as routing protocol. The nodes which are acting as an active node are selected on the basis of different factors like stability, utility and energy. The proposed method dynamically adjusts the topology according to the network traffic conditions to conserve the energy of network and thus it prolongs the network lifetime without affecting node connectivity.

KEYWORDS: MANET, Energy Management, Topology Control, Energy Efficiency, Routing