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Performance Comparison of AODV and Soft AODV Routing Protocol

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Abstract : A mobile ad hoc network (MANET) represents a system of wireless mobile nodes that can self-organize freely and dynamically into arbitrary and temporary network topology. Unlike a wired network, wireless network interface has limited transmission range. Routing is the task of forwarding data packets from source to a given destination. Ad-hoc On Demand Distance Vector (AODV) routing protocol creates a path for a destination only when it required. This paper describes the implementation of AODV routing protocol using MATLAB-based Truetime simulator. In MANET's node movements are not fixed while they are random in nature. Hence intelligent techniques i.e. fuzzy and ANFIS are used to optimize the transmission range. In this paper, we compared the transmission range of AODV, fuzzy AODV and ANFIS AODV. For soft computing AODV, we have taken transmitted power and received threshold as input and transmission range as output. ANFIS gives better results as compared to fuzzy AODV.

Keywords : ANFIS, AODV, fuzzy, MANET, reactive routing protocol, routing protocol, truetime
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