Abstract

The emerging capabilities of mobile devices have given a new direction to the internet, which decreases the cost and allow us to use infrastructure wireless networks and infrastructure less wireless networks (i.e. Mobile Ad Hoc Wireless Network). Mobile ad-hoc network (MANET) is one of the most encouraging fields of research and development of wireless network. Sending information across the network from a source to a destination is one of the major issues in communication network. In a mobile ad hoc network, the complexity increases due to various characteristics like dynamic topology, absence of centralized authority, time varying QoS Requirements etc. To overcome this problem a number of routing protocols have been developed. It is not easy to determine which protocols may perform well under a number of different network scenarios such as network size and topology etc. In this paper we provide an overview of a wide range of the existing routing protocols with a particular focus on their characteristics and functionality using Ant Colony Optimization (ACO) technique for developing routing algorithms for ad hoc networks.
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Index Terms

Computer Science Wireless

Keywords

ACO, MANET, OLSR, AODV, DSR, TORA, Routing Protocol, QoS