In this paper, modified ad-hoc on-demand multipath distance vector (AOMDV) for multipath routing using ant colony for mobile ad hoc networks (MANETs) is presented. For this purpose, Ant-AODV is used for comparison with Ant-AOMDV. The idea behind the working of Ant-AODV and Ant-AOMDV is that the RREQ message packets are sent to single path in case of Ant-AODV based routing and to multiple paths in case of Ant-AOMDV based routing. RREQ message packets can be termed as pheromone in terms of standard algorithm of ACO used by the ants. Selecting the transmission path dynamically through regular updating of pheromone of transmission path expects to improve routing performance. Simulation results show that Ant-AOMDV algorithm outperforms Ant-AODV effectively in terms of packet delivery fraction, normal routing load and packet drop compared with AODV and AOMDV. The main goal is to reduce the routing overhead, congestion and increase the performance.
Ant Colony Optimization based modified AOMDV for Multipath Routing in MANET

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Index Terms

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