

# An Ant colony optimization based routing approach for MANET

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## **ABSTRACT**

In Mobile Ad-Hoc Networks (MANET), the challenging problem is the designing of the self-adapted, self-organized and self-configured routing protocols. Ant Colony Routing (ACR) is the member of routing protocols which are based on Swarm Intelligence (SI). As per the properties of MANET networks, node has limited energy; mobility, and signal uncertainty, traditional routing protocols may not give good results. So, they are not longer applicable. So, as a solution of this problem, we are using cross layer approach for routing algorithm, based on Ant Colony Optimization (ACO). It will merge mobile agents and ant colony optimization technology. Our proposed strategy is working with information of link layer, network layer and application layer actively to get optimized route in large scale Mobile Ad-Hoc Network.