Abstract

Routing in MANET (Mobile Ad hoc Network) is a challenging task because of the mobile nature of the nodes in a network and topology changes very often and developing effective routing protocols for MANET is also a highly challenging task. To fulfil the multiple routing requirements as low control overhead, low packet delay, high packet delivery rate and adapting effectively to network topology changes and so on, are the issues which are emerging. Amidst lots of problems which are found to be NP-hard in routing, new ways to find approximate solutions have to be investigated. A lot of attention was attracted by Swarm intelligence inspired algorithms which are based on the Ant Colony Optimization meta heuristic technique because they can offer optimized solutions ensuring low control overhead, robustness etc. and presents framework for approximating solutions to NP-hard problems. This paper includes 1) Introducing the ACO technique and its principles 2) Various ACO based routing protocols 3) summary and conclusion.

References
A Survey of Various Ant Colony Optimization based Routing Protocols for Mobile Ad hoc Networks


Index Terms

Computer Science Communications

Keywords

Aco, Manet, Si, Fant, Bant