Abstract

In Ad-Hoc networks the mobile nodes communicate with each other using multi-hop wireless links. The main drawback of such network is that there are no stationary infrastructures to route the packets. Hence, routing protocols have to adapt quickly and elegantly to frequent and unpredictable changes in network technology and they have to do so while conserving the memory, power and bandwidth resource. The Ant Colony Optimization technique implemented upon such networks have helped the nodes in finding the routes to different nodes in an optimized way same as ants find the optimum route to its food. The techniques provided so far have considered the search space utilized by a node as the space occupied by all the nodes that are present in the network which requires message passing among all the nodes that are present in the network consuming plenty of bandwidth and power only to find the routes to different nodes. If we divide the search space among the nodes forming clusters then the number of messages communicating will be reduced thereby reducing the bandwidth occupied and power consumed.

References

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**Index Terms**

Computer Science

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**Keywords**

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