Abstract

Power aware routing is the effective way to increase the life span of nodes having limited battery power in ad hoc networks. In MANET, Energy consumption is a significant issue since all of the mobile nodes are battery powered due to which lifetime of a network is restricted. In order to prolong the lifetime of ad hoc networks, the energy consumption of nodes should be minimized sincerely, exhaustion of energy of a single node causes link breakage in a network. In this paper, energy conscious routing procedures are analysed and an algorithm is proposed with simulation in MATLAB that will help to enhance the lifetime of network. Genetic algorithm gives the random solutions from the generations of paths and achieves the optimized performance. From the tentative consequences, it is resolved that network will be more energy efficient as compared to the earlier energy efficient algorithms.

References

1. S.J. Lee, M. Gerla, and C.-K. Toh, "A Simulation Study of Table-Driven and On-Demand
Routing Protocols for Mobile Ad Hoc Networks,” IEE Network, July 1999
Index Terms

Computer Science  Wireless

Keywords

MANET, energy aware routing, genetic algorithm