Abstract

The conventional routing protocols in mobile ad hoc network (MANET) using conventionally a common transmission power for both transmission and overheads to transfer the data packet from the source to the destination node have been revisited. Hence, a technique was developed to establish an algorithm (Adaptive-Transmission-Power Ad Hoc On-Demand Distance Vector (ATP-ADOV) routing protocol - to control the transmission of power dynamically and overheads in MANET. The proposed ATP-ADOV reduced the energy consumption in the networks and improved the lifetime of the participating mobile nodes as well as that of the lifespan of the networks.

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Index Terms

Computer Science       Wireless

Keywords

MANET, Routing protocol, Network simulator, Transmission range, Throughput, Delay, Packet delivery ratio, Energy consumption, efficiency and lifetime