Abstract

Power efficient multicast routing is one of the key issues in the field of mobile ad hoc networks. Multicasting is a term which refers to delivering data packets to a group of mobile nodes from an intended source. Quality of Service enlarges the support level of predictable performance for network systems. This research work focuses on design and development strategy of QoS aware power efficient multicast routing protocol which best suits for wireless nodes moving around the network with varying mobility speed. The QoS metrics such as average group delivery ratio, average power consumption and average delay are taken into account for measuring the performance of the proposed protocol QoS-PEMRP. Extensive simulation results are carried out through NS2 simulator. From the simulation results it is shown that the proposed QoS-PEMRP outperforms On-Demand Multicast Routing Protocol (ODMRP) routing protocol by reduced delay and increased packet delivery ratio along with decreased power consumption.

References

- B. Tavli and W. Heinzelman, "MH-TRACE: Multi Hop Time Reservation Using
- S. Athanassopoulos, I. Caragiannis, C. Kaklamanis, and P. Kanellopoulos, &quot;Experimental Comparison of Algorithms for Energy-Efficient Multicasting in Ad Hoc...
QoS Aware Power Efficient Multicast Routing Protocol (QoS-PEMRP) with Varying Mobility Speed for Mobile Ad Hoc Networks,


Index Terms

Computer Science
Mobile Networks
Keywords

QoS  QoS-PEMRP  Mobile Ad Hoc Networks