Abstract

In MANETs, mobile nodes consume more energy than the sensor nodes due to the presence of mobility. If the path stability is not maintained properly, network partition will occur. From the analysis of the previous work, it is concentrated on either energy or stability of path. So that performance of network will get degraded. In this work, Efficient Energy based Stable Multipath Routing Scheme is proposed to make a correct balance between stability of multipath and energy conservation. The main of the proposed work is to reduce energy consumption and provide better stability using the stability model. The proposed scheme consists of three phases like multipath routing, stability of multipath and energy consumption model. Multipath routing is developed to ensure better network lifetime and more energy efficiency. The multipath routing stability is calculated to ensure more network stability. Energy spent for transmission is reduced using the energy consumption model. By simulation results the proposed algorithm EESMRS achieves better performance in terms of packet delivery ratio, delay, overhead, network lifetime, energy consumption link availability than the existing method PLSS and LAER schemes.
Efficient Energy based Stable Multipath Routing Scheme for MANET

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Keywords
MANET  Link stability  Multipath routing  residual energy  energy consumption  Mobility  packet delivery ratio
Network lifetime
stability weight
throughput
overhead and end to end delay