In mobile ad hoc networks (MANETs) security is of major concern because of its inherent liabilities. The characteristics of MANETs like infrastructure less network with dynamic topology pose a number of challenges to security design. There is an increasing threat of attacks in MANET. Wormhole attack is one of the security attacks on mobile ad hoc networks in which a pair of colluding nodes make a tunnel using a high speed network. This paper focuses on providing a solution for secure transmission through the network and proposes a neighbor node analysis approach to identify wormhole attack and removes wormhole link in MANET. The proposed work is simulated using NS-2 and is analyzed using certain parameters such as throughput, loss rate, delay rate.
Securing MANET against Wormhole Attack using Neighbor Node Analysis


Index Terms

Computer Science

Wireless

Keywords

Wormhole Attack   AODV   Routing   Network Security   MANET