Abstract

The mobile ad hoc network is self-configurable network technology where not any fixed infrastructure is available. Due to frequent mobility and dynamic topology the network suffers from the frequent path breaks and the connectivity issues. The clustering techniques are utilized to improve the connectivity and scalability of network. Therefore a new weight based clustering algorithm is developed using the remain energy, signal to noise ratio, mobility and connectivity for better performance in a cluster. The implementation and the comparative performance study are performed in network simulator 2 platforms. The performance studies of the technique are given in terms of packet delivery ratio, remaining energy, end to end delay, throughput and overhead in network. The obtained results demonstrate the proposed technique improves the reliability of cluster.
Cluster Head Election Approach based on Weighted Clustering Algorithm for MANET


Hui Cheng, Shengxiang Yang, Jiannong Cao, "Dynamic genetic algorithms for the dynamic load balanced clustering problem in mobile ad hoc networks", Expert Systems with Applications 40 (2013) 1381–1392, 2012 Elsevier Ltd. All rights reserved.


G. Ivascu, S. Pierre, A. Quintero, "QoS Support Based on a Mobile Routing
Cluster Head Election Approach based on Weighted Clustering Algorithm for MANET


Index Terms
Computer Science
Networks

Keywords
MANETs Clustering Cluster head packet delivery ratio