

Performance Analysis of ERA Using Fuzzy Logic in Wireless Sensor Network

Authors : Kamalpreet Kaur, Harjit Pal Singh, Vikas Khullar

Abstract : In Wireless Sensor Network (WSN), the main limitation is generally inimitable energy consumption during processing of the sensor nodes. Cluster head (CH) election is one of the main issues that can reduce the energy consumption. Therefore, discovering energy saving routing protocol is the focused area for research. In this paper, fuzzy-based energy aware routing protocol is presented, which enhances the stability and network lifetime of the network. Fuzzy logic ensures the well-organized selection of CH by taking four linguistic variables that are concentration, energy, centrality, and distance to base station (BS). The results show that the proposed protocol shows better results in requisites of stability and throughput of the network.

Keywords : ERA, fuzzy logic, network model, WSN

Conference Title : ICCICE 2017 : International Conference on Communication, Information and Computer Engineering

Conference Location : London, United Kingdom

Conference Dates : July 24-25, 2017