

عنوان مقاله:

Geographic and Clustering Routing for Energy Saving in Wireless Sensor Network with Pair of Node Groups

محل انتشار:

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خلاصه مقاله:

Recently, wireless sensor network (WSN) is the popular scope of research. It uses too many applications such as military and non-military. WSN is a base of the Internet of Things (IoT), pervasive computing. It consists of many nodes which are deployed in a specific filed for sense and forward data to the destination node. Routing in WSN is a very important issue because of the limitation of the energy of each sensor node. Energy is supplied from a battery and in many situations, it impossible to change the battery of sensor nodes. With power control of each sensor node can improve energy efficiency and the network lifetime. In this paper, a method proposes for energy saving issue of routing. It uses clustering with the advance network coupling model based on a geographic method for routing. This new algorithm is based on gateway nodes to save more energy of nodes and decrease the average end-to-end delay for delivery of data packets. Simulation results clearly show that the new proposed method can improve the average energy consumption of the network by at least 32.5% and increase the network lifetime by at least 87.14% than other approaches.

کلمات کلیدی:

Wireless sensor network, routing, energy saving, network lifetime, gateway

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