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EFFICIENT ENERGY SAVING ALGORITHM BY MODERN CLUSTER HEAD SELECTION IN WIRELESS SENSOR NETWORK

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ABSTRACT

Recent technological advances in communications have enabled the development of low-cost, low-power, small in size, and multifunctional sensor nodes in a wireless sensor network. In wireless sensor networks, large numbers of nodes are deployed over the area of interest which has direct relation to the cost of the network. Since the radio transmission and reception consumes a lot of energy, one of the important issues in wireless sensor network is the inherent limited battery power because of which energy of sensor nodes gets drained off. Thus minimizing energy consumption and maximizing network lifetime is important in the design of applications and protocols of sensor networks. In this paper, we have proposed a new algorithm "EFFICIENT ENERGY SAVING ALGORITHM BY MODERN CLUSTER HEAD SELECTION IN WIRELESS SENSOR NETWORK". The proposed algorithm uses Gaussian elimination method for selecting the cluster heads. It considers the current and residual energy of sensor nodes along with the distance and also estimates the number of rounds in which a node can be cluster-head. Our goal is to confront an emerging technology and solve the limited energy problem by using proposed algorithm and increase the network lifetime for the betterment of the wireless sensor networks.

KEYWORDS: Energy Saving, Gaussian Elimination Method, WSN