

Enthralment of Received Signal Strength Vaticinate of Cluster Head and Number of Rounds

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Abstract: The dispersed nature and vibrant topology of wireless sensor network have some basic requirements that include reduced energy utilization and extended network's lifetime. In this paper, we have focused on hierarchical protocols. In such protocol the nodes are arranged in clusters. To synchronize action and route data, cluster head are selected one per cluster. We have introduced a new approach in wireless sensor network for selecting the cluster-head by making use of artificial neural network in order to increase network's lifetime. We have used residual energy as a factor to make cluster-head. Radial basis function network model is used for cluster-head selection problem. The simulation results provide network's performance on the basis of some factors including number of dead nodes, total energy consumption, cluster head formation, number of nodes dying and the number of packets transferred to base station and cluster head. The performance of the proposed algorithm is compared with LEACH and LEACH-C based on energy efficiency and improved network lifetime

I INTRODUCTION

Wireless Sensor Networks (WSN) that on sensor, battery, processor and communication unit which is to collect data from the environment they have created networks of small nodes. Wireless Sensor Networks aim of Madiran delivered to the collection point of data collected from the environment. The studies in the literature on this topic can be collected in the localization and energy efficiency, data routing. One of the important work areas in WSN is to select a cluster head (CH) in self-organized clusters, create their own clusters and each cluster

can send the data. Clustering algorithms basic principle, the energy of the nodes in the network to select a CH in order to use the highest efficiency and the data are included in the set is based on its submission to him. If the selected cluster head transmits data from the central node.

Cluster head (CH) selection on the calculated energy to generate a random number with the participation threshold of parameters such as the number of nodes in the CH node or that the network is based on a high. But choosing themselves a CH node of a clustering algorithm clusters close to each other based on the distance from the node would lead to less energy will be more accurate than logically. When analyzed studies on the subject, which appears to be related to the selection algorithm Leach per cluster. LEACH algorithm was developed in 2002 by Heinzelman and CH selection was built. In another study that was made by Heinzelman in the same year, due to the not to be homogeneous distance between CH and nodes in cluster, the CH of the energy efficiency of the nodes has been mentioned is low. There are studies about the measurement of the battery capacity with distance information and the distance estimation between nodes and determine the position of movable objects in confined spaces with RSSI.

The rest of the paper is organized as follows. Section II gives a brief overview of work related method. Section III and IV describes the preliminaries and the proposed methodology. Section V presents the experimental results obtained from the proposed method and comparison with existing work. The paper is Conclusion in section VI respectively.



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