

Improving the Sensor Energy Consumption Using IWC Algorithm

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ABSTRACT

The main elements of energy-productive Wireless Sensor Networks are extending network lifetime and enhancing flexibility because the sensor and nodes present in the WSN have limited energy resources (WSNs). When choosing the cluster head (CH), the majority of current approaches only take into account a node's remaining residual energy, ignoring other factors such as its location and nodal degree within the WSN geography. The Improved Weight based Clustering IWC is a new algorithm that this study suggests for WSNs in order to reduce the overall energy consumption of the node, balance the energy consumption across all nodes/sensors, and increases the adaptability and versatility of the network as a whole. Using simulated experiments with some of the top algorithms in this field, this research examined the performance of the proposed IWC algorithm and the results show that the IWC algorithm performed significantly better than the previous algorithms in terms of energy efficiency.

Keywords: WSN, IWC, Sensor Energy

