

Abstract

The extension of the sensor node's life span is an essential requirement in a Wireless Sensor Network. Cluster head selection algorithms undertake the task of cluster head election and rotation among nodes, and this has significant effects on the network's energy consumption. The objective of this paper is to analyze existing cluster head selection algorithms and the parameters they implement to enhance energy efficiency. To achieve this objective, systematic literature review methodology was used. Relevant papers were extracted from major academic databases Elsevier, Springer, Wiley, IEEE, ACM Digital Library, Citeseer Library, and preprints posted on arXiv. The results show that there are many existing Cluster Head Selection Algorithms and they are categorized as deterministic, adaptive and hybrid. These algorithms use different parameters to elect Cluster Heads. In future the researchers should derive more parameters that can be used to elect cluster heads to improve on energy consumption.