Abstract

Extending the lifetime of the wireless sensor network has been aimed by several research efforts. Distributed networks provide a viable solution to increase the lifetime of WSN. It does not assign the heavy task to a single node, which otherwise can result in the loss of connectivity, fast depletion of the battery of the single node and reallocation of the tasks. Task allocation in WSN play a major role in extending the lifetime. This paper propose a method (ETAUC) Energy aware task allocation with unequal clustering in WSN that provide the task allocation among clusters according to their strength of the battery, it helps in balancing the work in network and avoids the condition, in which some clusters finishes quickly and other clusters have plenty of battery power. The proposed method also circumlocutes the reassignment of the task; which has been partially completed by the finished cluster. The wireless sensor networks are deployed in the area of variant environmental features so we have also focused here on providing the relation between the temperature and the battery power of the sensor node. The simulation results shows that our proposed method increase the throughput 32.51%.
Energy Aware Task Allocation with Unequal Clustering in WSN

References


T. Xie, X. Qin, and M. Nijim 2006. Solving energy-latency dilemma: task allocation for parallel applications in heterogeneous embedded systems. 2006 International Conference on Parallel Processing (ICPP'06).


Index Terms

Computer Science

Wireless
Keywords

WSN  Coverage lifetime  Task allocation  Clustering.