Abstract

A network comprising of several minute wireless sensor nodes which are organized in a dense manner is called as a Wireless Sensor Network (WSN). Fig. 1 demonstrates the architecture of wireless sensor networks. Every node estimates the state of its surroundings in this network. The estimated results are then converted into the signal form in order to determine the features related to this technique after the processing of the signals. Based on the multi hop technique, the entire data that is accumulated is directed towards the special nodes which are considered
as the sink nodes or the Base Station (BS). The user at the destination receives the data through the internet or the satellite via gateway. The use of the gateway is not very necessary as it is reliant on the distance between the user at the destination and the network [1]. Usually, the sensor network consists of a huge group of distributed minimum power sensors disseminated over the area which is to be supervised. The sensors possess the capability of collecting the data, processing and then forwarding it to the central node for additional processing [2]. The applications of WSNs include environmental monitoring, health, surveillance, catastrophe monitoring, structural monitoring, security, military, industry, agriculture, home, traffic monitoring, etc. When the sensor network is deployed in the battlefield, every data from sink node, reports of every data from sensor nodes to central node, message swapped between sensor nodes need to be encrypted for safeguarding the message from probable eavesdroppers [2]. For supervising the physical world, the wireless sensor networks are the promising technology. In order to collect the data from the surrounding in a sensor network application, several minute sensor nodes are organized and collaborated. Sensing modals like image sensors are placed in every node and this possess the ability to communicate in the wireless environment. The major merit of WSN is that it minimizes the application cost by deploying the several sensors with minimum communication cost and with base station offering full network function. [3].

References


Index Terms

Computer Science

Security
Keywords
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