Abstract

Wireless sensor networks (WSNs) have power of distributed communication, computing, sensing features. They are characterized as infrastructure less, fault tolerant and self-organizing networks which provide opportunities for low-cost, easy-to-apply, rapid and flexible installations in unattended and harsh environments in various prospective applications. In future, their wide range of applications will make them an integral part in Internet of Things (IoT) and hence in real life. However, implementation of sensor networks pose many challenges for researchers to satisfy the stringent constraints introduced by peculiar characteristics primarily, the scarcest energy sources, unattended and harsh deployment environment, insecure radio links, changing network topologies, heterogeneity of nodes and multi-hop communications etc. In this paper we surveyed the structure, characteristics of wireless sensor network and its prospective applications along with its implementation challenges as well as design goals in brief.


Index Terms

Computer Science  Wireless
Keywords

Wireless, Sensors Network, Internet of Things, multi-hop, distributed communication