Abstract

Wireless sensor networks (WSNs) consist of a number of sensor nodes, which are able to collect information from the environment by measuring diverse environment variables, like temperature, humidity, sound etc. Sometimes the sensor nodes (SN) are expected to be deployed in unattended environments for long durations; the major challenge is tapping on ambient energy to power such networks. This paper investigates on providing dedicated power supply to all static sensor nodes (SN) through mobile power nodes (MPNs); which is equipped with solar cells and super capacitors to store harvested energy. The MPNs are used to supply energy to all other static sensor nodes which has energy below minimum threshold level. The super capacitor guarantees a longer lifetime in terms of charge cycles, it presents itself as a "green" technology compared to batteries and it has a wide range of operating
temperature.

References


Index Terms

Computer Science

Wireless
Keywords
Mobile Power Nodes (MPN)  Sensor Nodes (SN)  Super Capacitor