Abstract

Smart cities are developed with the help of many Internet of Things applications. WSN is made of few to hundreds and thousands of nodes and a node is connected to one or many sensors. Sensor nodes communicate with each other through wireless network and generates a vast amount of data. To transmit the sensed data, more energy is required. There is a need of a proper framework for the IoT applications to search and use the data efficiently. The purpose of this project is to design a cross layer framework for data aggregation to extract the sensor data from different applications. The first application refers to garbage management which abstain from spreading some dangerous infections, by observing the status of the dustbin. The second application is weather management to evaluate the environmental conditions. A middleware is
designed to store the data extracted from the sensors, and applications will access directly to the middle ware. The cross-layer protocol analyzed in this project is based on cross layer designs of the application layer and network layer.

References


Index Terms

Computer Science

Information System

Keywords

Smart Cities  IoT  Wireless Sensor  Data Aggregation  Eeprom  Cross Layer