

SUBJECT: WIRELESS SENSOR NETWORKS

Design Principles for Wireless Sensor Networks

Elementrix Classes

Wireless sensor networks (WSNs) are networks of small, low-power devices that are used to monitor and collect data from the surrounding environment. There are several design principles that are important to consider when designing a WSN, including:

- ❑ **Energy efficiency:** WSN nodes are often powered by batteries, so it is important to design the network in a way that minimizes energy consumption.
- ❑ **Scalability:** WSNs can potentially include thousands or even millions of nodes, so it is important to design the network in a way that allows it to scale easily.
- ❑ **Robustness:** WSNs often operate in harsh environments and can be subjected to interference, so it is important to design the network to be robust and resilient to these challenges.

- ❑ **Security:** WSNs often handle sensitive data, so it is important to design the network to be secure against attacks and data breaches.
- ❑ **Interoperability:** WSNs may need to integrate with other systems and devices, so it is important to design the network to be interoperable with other technologies.
- ❑ **Adaptability:** WSNs may need to adapt to changing environments and requirements, so it is important to design the network to be flexible and able to adapt to these changes.

पढ़िए और पढ़ाइये

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