

A Review on Communication Protocols of Wireless Sensor Networks

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Abstract: *Wireless Sensor Networks (WSNs) are networks of small, low-cost, low-power, and wirelessly connected sensor nodes. These sensor nodes can be distributed over a large area and can collect data about the environment, such as temperature, humidity, light, sound, vibration, and motion. WSNs are useful in a variety of applications, including environmental monitoring, smart agriculture, healthcare, industrial automation, and security. They can be used to gather data in remote or hard-to-reach locations, and they can also be used to monitor large areas continuously and in real-time. The nodes in a WSN are typically battery-powered and have limited processing and communication capabilities. Therefore, energy efficiency is a critical concern in WSNs, and the nodes are designed to conserve energy wherever possible. Proper choice of Communication protocols are essential for energy conservation in Wireless Sensor Networks (WSNs). This paper discusses about various communication protocols and its types. They help to reduce idle listening time, minimize data transmission, optimize routing, and control transmission power. By using energy-efficient communication protocols, WSNs can achieve longer network lifetime, better data accuracy, and improved network performance.*

Keywords: Wireless sensor Networks(WSNs), Communication protocols, Energy conservation.

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