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A Survey on Medium Access Control Protocol for Wireless Body Area Nanosensor Network

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Abstract

The body area nanosensor network represents a new paradigm shift that extends beyond the traditional sensor and body area network. It is envisioned that the implanted nanodevices will take measurements from inside the body and send the measured data to the outside world thereby reducing the rate at which patients constantly visit the hospital. However, this network is limited with energy-constrained and terahertz path loss which requires novel solutions. Medium access control is responsible for the management of the radio

transmitter and receiver which is the highest energy-consuming part of the nanonodes. This research gives a thorough examination of medium access control (MAC) protocols designed for wireless body area nanosensor networks (WBANNs). We explore the design requirements for WBANNs with significant energy dissipation sources. Then, we look at the already developed protocols for WBANNs, focusing on their merits and drawbacks. The paper concludes with closing remarks and open research questions for further study.

Keywords

Nanosensor MAC protocol

Health monitoring Terahertz

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