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The Future of Personal Area Networks in a Ubiquitous Computing World

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ABSTRACT

In the future world of ubiquitous computing, wireless devices will be everywhere. Personal area networks (PANs), networks that facilitate communications between devices within a short range, will be used to send and receive data and commands that fulfill an individual's needs.

This research determines the future prospects of PANs by examining success criteria, application areas and barriers/challenges. An initial set of issues in each of these three areas is identified from the literature. The Delphi Method is used to determine what experts believe what are the most important success criteria, application areas and barriers/challenges.

Critical success factors that will determine the future of personal area networks include reliability of connections, interoperability, and usability. Key application areas include monitoring, healthcare, and smart things. Important barriers and challenges facing the deployment of PAN are security, interference and coexistence, and regulation and standards.

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