Abstract

Wireless Sensor Network (WSN) considered as one of the most interesting and probably the most researched areas in the field of distributed applications in the last decade. The distinctive architecture of WSNs contributed to install it in an extensive range of the most industrial applications such as surveillance, monitoring, predicted, and automated control systems which can facilitate in bridging the divide between user requirements and technologies. On the other hand, WSNs face several challenges such as dynamic topology, power consumption, fault tolerance, scalability, and security. The main objective of this paper is to introduce the basic concepts and characteristics of the WSNs, applications, challenges, and recent research directions. Moreover, in this paper a comparative analysis and discussion of the most recent interworking approaches like gateway-based, overlay-based, and outlining a set of challenges will be introduced. Also, the future direction of the different approaches for connecting WSN to the Internet will be discussed.


36. Paulo Alexander, “Internet protocol over wireless sensor networks, from myth to reality”,

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Index Terms

Computer Science  Wireless

Keywords

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