Abstract

This paper focuses and talks about the wide and varied areas of applications wireless sensor networks have taken over today, right from military surveillance and smart home automation to medical and environmental monitoring. It also gives a gist why security is a primary issue of concern even today for the same, discussing the existing solutions along with outlining the security issues and suggesting possible directions of research over the same.

This paper is about the security of wireless sensor networks. These networks create new security threats in comparison to the traditional methods due to some unique characteristics of these networks. A detailed study of the threats, risks and attacks need to be done in order to come up with proper security solutions. Here the paper presents the unique characteristics of these networks and how they pose new security threats. There are several security goals of these networks. These goals and requirements must be kept in mind while designing of security solutions for these networks. It also describes the various attacks that are possible at important layers such as data-link, network, physical and transport layer.
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Index Terms

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Keywords

Wireless Sensor Network, sensor nodes, threats, attacks, solutions, security scheme, limitations