Abstract

ZigBee technology as a wireless sensor and control network is one of the most popularly deployed wireless technologies in recent years. This is because ZigBee is an open standard lightweight, low-cost, low-speed, low-power protocol that allows true operability between systems. It is built on existing IEEE 802.15.4 protocol and therefore combines the IEEE 802.15.4 features and newly added features to meet required functionalities thereby finding applications in wide variety of wireless personal area networked systems such as home/industrial automation and monitoring systems. Although the ZigBee design specification includes security features to protect data communication confidentiality and integrity, however, when simplicity and low-cost are the major goals, security suffers. This paper gives the general survey of the ZigBee as a wireless sensor network based technology which provides the readers with the general overview of ZigBee network technology including its topology, applications and challenges.


20. IEEE 802.15.4 Standard. Part 15.4: Wireless Medium Access Control (MAC) and Physical Layer (PHY) Specifications for Low-Rate Wireless Personal Area Networks (LR-WPANs) IEEE; Piscataway, New Jersey. (2006)


Index Terms

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Keywords