Abstract

Public Addressing System (PA) is an electronic sound and amplification distribution system with a microphone, amplifier and loudspeakers. PA systems are widely used to make announcements in public, institutional and commercial buildings and locations. In PA systems cost, quality and expansion are the major factors that affect the working and implementation of the system. The Zigbee based monitoring and controlling help us to improve the quality and performance, reduce cost, power and complexity and simplifies expansion. The proposed project is a wireless controlling, delivering and monitoring system for a public addressing system by combining embedded and Zigbee wireless network technology for low power and low cost data communication in fields where wired communication is expensive and complex. Zigbee is a secure, popular, low power, low data rate and low cost Wireless Personal Area Network.
Zigbee devices are used in smart energy, medical and in home automation. This project has a server and a number of client modules. Server module remotely starts, monitors and stops client modules using Zigbee server module. Client modules connect to the server through Zigbee client module. The system can be fully controlled from a single system (server module) through a GUI, which can be developed from any of the visual developing tools. The proposed application can be used to make low rate, low cost, secure and easily expandable systems for announcements in public, institutional and commercial buildings and locations.

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Index Terms

Computer Science

Wireless

Keywords

Zigbee  Pan  Ieee 802.15.4  Wlan  Mesh Topology