Abstract

In past few years, home automation & remote control and monitoring systems have seen a rapid growth in terms of technology. This paper gives a review of these systems based on existing technologies and also proposes a GSM-Bluetooth based light controller and remote monitoring system. This system has simple features designed with the objective of minimum power consumption using infrared sensor for controlling lights, fans and other appliances which are controlled via SMS using a GSM module. A Bluetooth module is also interfaced with the main microcontroller chip. This Bluetooth module eliminates the usage charges by communicating with the appliances via Bluetooth when the application is in a limited range of few meters. The system informs user about any abnormal conditions like intrusion detection and temperature rise via SMS from the GSM module or by Bluetooth module to the user’s mobile and actions are taken accordingly by the user.

References

- Bojan Kuljic, Anita Sabo, Tibor Szakall and Andor Sagi, "Use of Mobile Embedded System as Aid in Education Process", 11th IEEE International Symposium on Computational Intelligence and Informatics, Nov. 2010, pp. 147-150.
- Chen Peijiang; Jiang Xuehua; "Design and Implementation of Remote Monitoring System Based on GSM," Pacific-Asia Workshop on Computational Intelligence and Industrial Application, 2008, pp. 678–681.
- Li Wei, Yu Min, Cheng Liangliang and Chu Ping, "The Design of Intelligent Household Control System Based on Internet and GSM," 2nd International Conference on Networking and Distributed Computing 2011, pp. 254-256.

- Delong Zhang, Zhenjiang Cai, Jieqing Li, Meng Zhang, Xuesong Suo and Dening Zhang, "The wireless automatic meter reading and control system based on STC12C5A60S2," 2nd International Conference on Artificial Intelligence, Management
- Pushpendra Singh, Amarjeet Singh, Sangeeta Lal and Vinayak Naik, "CVDMagic: A Mobile Based Study for CVD Risk Detection in Rural India" ICTD’12, 12, March 12 - 15 2012, Atlanta, GA, USA.

**Index Terms**

Computer Science  
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**Keywords**

Gsm  Bluetooth