Abstract Details

Title: Design and Implementation of Wireless Fire Fighting System

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Abstract: In this work a review of existing fire-detector types has been carried out along with the development of a low cost, portable and reliable microcontroller based automated fire alarm system for remotely alerting any fire incidents in household or industrial premises. The aim of the system designed is to alert the distant property-owner efficiently and quickly by sending short message (SMS) via GSM network. A Linear integrated temperature sensor detects temperature beyond preset value whereas semiconductor type sensor detects presence of smoke or gas from fire hazards. The sensor units are connected via common data line to ATMega16 AVR microcontroller. A SIM9001 GSM kit based network module, capable of operating in standard GSM bands, has been used to send alert messages. The system is implemented on printed circuit board (PCB) and tested under different experimental conditions to evaluate its performances.

Keywords: Microcontroller, GSM, Wireless, SMS, Fire Fighting.