



RESEARCH ARTICLE

Remote Temperature Monitoring Using LM35 sensor and Intimate Android user via C2DM Service

Poonam¹, Prof. (Dr.) Yusuf Mulge²

¹Department of Computer Science and Engineering, PDM College of Engineering for Women, MDU, Rohtak, BAHADURGARH, India

²Department of Computer Science and Engineering, PDM College of Engineering for Women, MDU, Rohtak, BAHADURGARH, India

¹ pdahiya.pdm@gmail.com; ² principal_wengg@pdm.ac.in

Abstract— This paper presents an embedded wireless sensor network prototype for remote room temperature monitoring. This network will be used for management of fire rescue operations. It will give the Android registered user freedom to continuously monitor the remote room temperature and in this way it provides better fire controlling technique. The proposed system provides an android user interface for registered user to access the current temperature and a flash/beep message in case of fire. LM35 sensor sense the remote room temperature and temperature status is transmitted to the smart phone via GPRS. Remote room temperature data transfer between the smart phone and application server that is connected to temperature sensor via USB cable is done using Google's C2DM service. The application server which analyzes the temperature data, then inform a registered user for taking proper action in case of fire. This work aims at monitoring of remote room temperature. Thus provides opportunity to quickly respond to fire emergencies.

Key Terms: - *Wireless sensor network; Arduino; microcontroller; temperature monitoring; General Packet Radio Service (GPRS); Cloud To Device Messaging (C2DM)*
