

“PORTABLE AUTOMATIC CONJECTURING AND ANNOUNCING SYSTEM FOR REAL TIME ACCIDENT DETECTION” A PROJECT REPORT

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ABSTRACT

In this project, the portable automatic conjecturing and announcing system for real-time accident detection is proposed. The main purpose of this system is to realize real-time user care through real-time information monitoring. Here various sensors like 3-axis accelerometers and the Heartbeat sensor are mounted on the user's specific region and the Fire sensor and GPS modem are used as part of the system.

When the system determines that an accident has occurred, the portable device can obtain user location in real time through the Assisted Global Positioning System Server, and notify the hospital network, user's family, and medical staff. The scenario is constructed in a global network in order to provide users with freer activity space, where the user end displays current user condition. The portable device which is the core of the system, should have functions like accident analysis and network communication. Finally, the hospital should have a smooth network to receive accident reports of various users, and medical staffs must be informed immediately about the occurrence of accidents.

This is a microcontroller based project and various sensors are interfaced to the ATME89S52 microcontroller. The heartbeat sensor and the tilt sensor analyze the patient's condition, the Fire sensor is used to detect any event of fire breakout during an accident and the GPS modem is used to obtain the co-ordinates of the accident location. This information is put together in the form of a text message and transmitted to the medical staff and the user family through the GSM modem.

Thus the medical staff and the user family are alerted about the accident automatically without any human intervention.
