

## **Portable Automatic Conjecturing and Announcing System for Real-Time Accident Detection**

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**Abstract-** In this paper, we propose the portable automatic conjecturing and announcing system for real-time accident detection. There are six sensors with 3-axis accelerometers and the ZigBee transmission standard mounted on the patients' specific region. After being transmitted to the mobile device through the ZigBee devices, the data are analyzed immediately. When the accident occurs, the mobile device could get the user's location with Assisted Global Positioning System (AGPS) and transmit the information of accident to the medical staff through the 3rd-generation (3G) network. The medical staff will make a careful check of this accident with the patient again. In order to improve the limit of Regional Health Network (RHN), the environment constraints, the mobile computing capability, the power consumption and the device portability are considered in this system architecture we proposed.

**Index terms:** ZigBee, 3-axis accelerometers, Accident Detection