

ResQharmony - Design & Development of an Automated Emergency Alert IoT System for Car Accident Scenario

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Abstract: *ResQharmony is a proactive car-centric application which is being designed for generating alert messages automatically, during an accident scenario. The system is planned for enabling an automated medical assistance alert to nearby hospitals and to family members of the victim. This life saving application uses cutting-edge technologies such as MEMS (Micro-Electro-Mechanical Systems), sensors, Raspberry Pi, GPS (Global Positioning System), and GSM (Global System for Mobile communication), the system detects airbag deployment and provides automated responses, thereby minimizing human intervention and reducing response time and sharing of live location with emergency services and to the persons of interest like relatives, friends, Hospital, Police station while continuously monitoring the location using Global positioning system (GPS). This paper is focussed more towards the software application development component with future potential for integration with suitable electronics.*

Keywords: Global Positioning System (GPS), GSM (Global System for Mobile communication), MEMS(Micro-Electro-Mechanical Systems), Emergency Alert, Car Safety, Mobile Application, CAN(Controller area network).