Roadside Accident Victim Survival System

Sudhanshu Taldar,Tanishq Shrivastava(UG. Stu. GITS)
Vishal Jain
(AS. PROF. CSE GITS)
Prashant Nagar,

ABSTRACT: A large number of deaths are caused by Traffic accidents worldwide. The global crisis of road safety can be seen by observing the significant number of deaths and injuries that are caused by road traffic accidents. In many situations emergency services are not informed in time. This results in delayed emergency service response time, which can lead to an individual's death or cause severe injury. The purpose of this work   is to reduce the response time of emergency services in situations like traffic accidents and medical emergencies. By using a website on a smartphone to detect vehicular accidents and report it to the nearest emergency responder available and provide real time location tracking for responders and emergency victims, will drastically increase the chances of survival for emergency victims, and also help save emergency services time and resources.

Keywords: Traffic accidents; accident detection; accelerometer; real-time tracking; emergency services; emergency responder; emergency victim;

I. INTRODUCTION

The number of deaths due to traffic accidents is very high. Looking at the number of deaths and injuries due to road traffic accidents shows the global crisis of road safety. Nearly 1.3 million people are killed every year and about 50 million injured worldwide due to road accidents, which averages to 3,287 lives lost every day.

The most likely reason for an individual's death in an accident is lack of the first aid provision that is because of emergency services not receiving information about accident in time. Emergency response time is extremely vital when it involves incidents involving vehicle accidents. Analysis shows that if we decrease just 1-minute in accident response time that can increas chances of saving an individual's life up to six percent. In order to reduce response time, implementation ofenhancedtraffic technologies

would be necessary, which will help scale back response time and therefore reduce fatalities.The purpose of this research is to design and implement such an automated system that uses smartphone to detect vehicle accidents and report it to the nearest available responders to help counter these emerging problems and reduce casualties as much as possible. The detection system would help reduce fatalities due to vehicle accidents by decreasing the response time of emergency services

In this work we are utilizing smartphone to detect accidents and report it to the nearest available emergency responders with the exact location of victims in emergency. On an emergency responder side, the system will inform responders about the incidents that occur near to them and provide them with real time tracking of emergency victims on a Google map. This will help emergency responders keep track of victim's location and rescue them as soon as possible.

II. OBJECTIVES
A. Primary Objective
The primary objective is to design and develop a technique which will help reduce fatalities due to vehicle accidents by decreasing the response time of emergency services.

B. Secondary Objective
1. The purpose is to design and implement such an automated system that uses smartphone to detect vehicle accidents and report it to the nearest available responders to help counter these emerging problems and reduce casualties as much as possible
2. To develop a mobile based system model to detect accidents and report it to the nearest available emergency responders with the exact location of victims in emergency.
3. On an emergency responder side, the system will inform responders about the incidents that occur near to them and

provide them with real time tracking of emergency victims on a Google map.
4. This system is very user friendly so that it is easily understood by both responder and victim.

III. PROBLEM STATEMENT

The most likely reason for an individual's death in an accident is lack of the first aid provision that is because of emergency services not receiving information about accident in time. Emergency response time is extremely vital when it involves incidents involving vehicle accidents. Analysis shows that if we decrease just 1-minute in accident response time that can increaschances of saving an individual's life up to six percent.The most likely reason for an individual's death in an accident is lack of the first aid provision that is because of emergency services not receiving information about accident in time. Emergency response time is extremely vital when it involves incidents involving vehicle accidents. Analysis shows that if we decrease just 1-minute in accident response time that can increaschances of saving an individual's life up to six percent

- **USE CASE DIAGRAM**
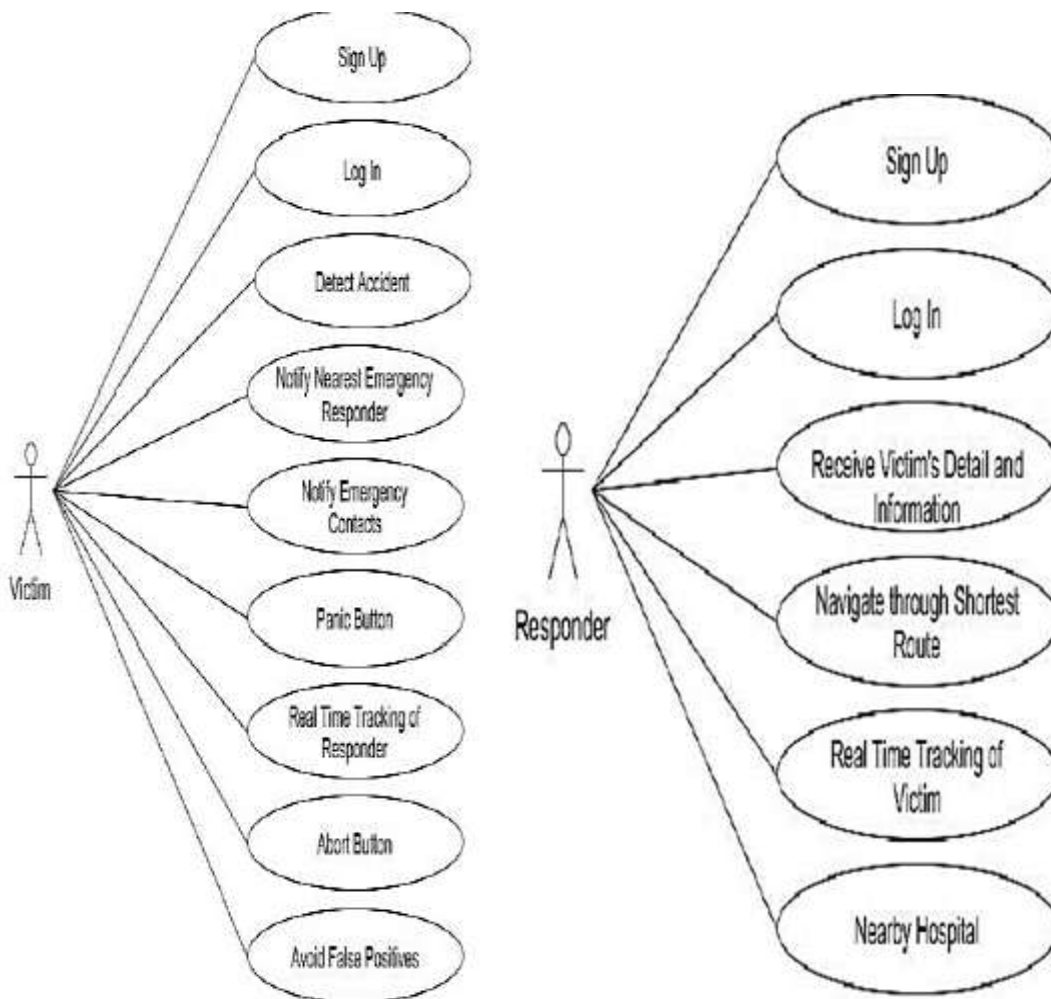
A. Design Architecture of Proposed System 1.Registration/Login-
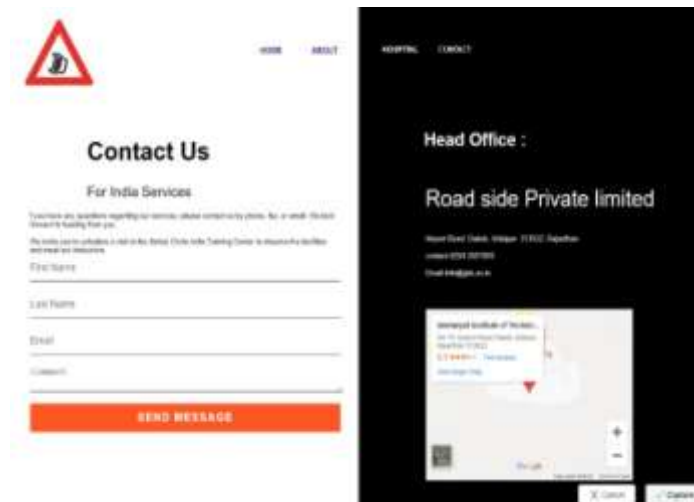Registration form will take information of Responder or victim .

Fig 1. User registration

After successfully registering the responder can login anytime using his credentials.

2. Contact Us

Fig 2. Contact us page

3.   Dashboard-
Themainuserinterfacewhichdisplaysevery feature such as hospitals details and help box to provide live location of vitim.

Fig 3. Dashboard

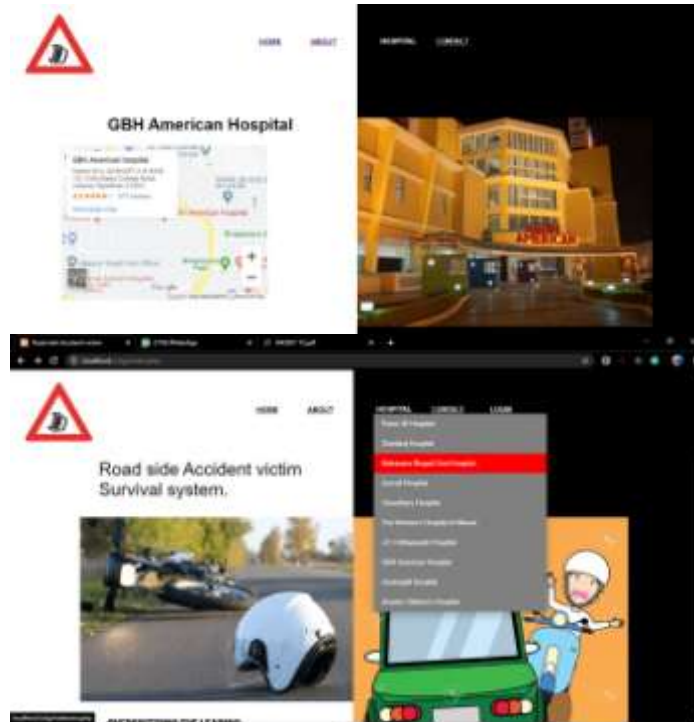## 4. List Of Hospitals And Hospital Details

Fig 4. Hospitals with details.

5. Help Me Box

In the help me box the victim itself or the responder can sent a message to the hospital emergencies containing name and the contact no of the victim or the responder with their live location.

Fig 5.

6. About Us

Fig 6. About us page.

7. Victim Location

Fig 7. Live location of victim

IV. CONCLUSION-

In this research, we developed the accident detection and smart rescue system, to detect accident and generate emergency alert and send it to the nearest emergency responder and will also send an SMS to emergency contact containing location coordinates of the accident. With real time location tracking for both victim and responder the system will drastically increase the survival rate of an accident victim by providing emergency aid in time. The system will also provide help during medical emergencies. Emergency responder will be able pin point victim's location on a Google map in real time.

V. ACKNOWLEDGEMENT-

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