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Smart Rescue System Using Android Smart phone

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Abstract – *Now a day's people are knowingly or unknowingly leaving their life because of accidents in worldwide. The global crises of road safety can be observed clearly that number of injuries and deaths are facing in road accidents. Some of the situations, emergency services and family members are not informed in proper time due to this delay in response time some people will die and some will be severely injured. The main purpose of introducing this work is to decrease response time of the emergency situations like fire accidents, theft, robberies, and medical emergencies and in accident situations. By using onboard sensors of the smart mobiles to detect emergency situation and report to the nearby emergency responder side providing with real time location tracking for responder side they can easily track the emergency victims with the help of GPS and help them in time. By using this there will be a increase in the survival of emergency victims and help them in time save emergency service time and resources .The main point in this idea is captured image or the details of the user side will not be save in the storage because of public security purpose.*

Key Words: **Accidents, Smart phones, medical signal detection, fast emergency responder**.

1.INTRODUCTION:

In our day to day life, the number of injuries and deaths caused by traffic is increasing. If we look into the global crisis of road safety reports the number of deaths and injuries due to road accidents are drastically increased. In a recent survey, nearly 1.3 million people are died in the road accidents and 50 million people are injured around the world, the average is about 3,387 lives lost every day. Now a day's more than 60 percent of deaths are happening because of young adults between the ages of 18 to 35.Nearly 5, 00,000 adults are died in the age of 23 to 28 in road accidents due to rash driving. Some of the countries having very good road safety measures still they cannot help the people in the occur in the middle income countries; in low income countries the count is even high. According to the collected data of different places the approximate count of individuals deaths are around 55,514 and occurring in road accidents right time to save their life. The 90 percent of road accidents are around 1,00,000 across the country. The main reason for an individual death in accidents is lack in the provision of first aid in time that is because of the emergency services are not receiving the information in time to save the victims. In every country the emergency services are very active but the defeat is they are not getting the information in proper time to save the victim. The recent analysis shows that if the emergency service is late for just 1minute in accident response time that increases the chances of losing the individual life is up to 6 percent. In the part of reducing the response time delay, implementation of enhanced in the response time because of this reduce in fatalities. The main purpose of this research is to implement am automated system with the usage of smart phones (available for everyone) to detect accidents capture the image in smart phones and report to the nearby responder side to help the victims by using this there will be reduce in the emergency problems and casualties as much as possible. This system would help in the reduce fatalities due to accidents and also decrease in the response time of emergency service. This system will also provide the emergency services like Fire issues, Police help and medical emergency services. In this process we will use android phones to detect the accidents and send request to the responder side using the GPS tracking with exact location of victim in emergency. The other side(responder side),the system will display notification on the responder system about the incident that occur near to them and with the usage of real time tracking system the responder will get location to go and help victim. Thus by this process the responder will get information in a right time to save the victim as soon as possible.

1. LITERATURE SURVEY:

By using smartphones to identify road accidents is not a new topic. There are many algorithms for systems which uses accelerometer and also GPS to detect accidents using smartphones to detect accident dates revised to 2011. Wedecide to develop a system that is more faster and reliable that the existing one. When an accident occurs our system will detect an accident and it will sends an SMS to emergency contacts specified by the user. The SMS will contain information about the accident and the app

also makes a call to the emergency services automatically. After the occurrence of the accident, our application automatically sends a voice message to 108 ambulance emergency services. Now-a-days all the modern vehicles have ODB-II connection installed in it which transmit data about the vehicle in real-time such as acceleration, oil pressure, speed, etc. Since 2001, European countries have already implemented a version of this standard in vehicles. Only US and Europe are using this system and is still not available in other countries in the world.

2. PRPOSED SYSTEM:

Use case of the Smart rescue system using android Smart- phone, which shows the user's interaction with the system. It shows that the user registering themselves, user can log in to the system using email and password authentication. He/she can view/update his profile at any time after authenticated. Then for the conformation

the system will ask mail id with phone number. After this as shown in use case diagram the user will capture the image of the victim and sends to the nearby responder side with the help of the real time GPS tracking.

3.User Authentication:

1)Registration:

In the form of registeration to the system user has to provide name, email address, password, phone, etc. Once user is registered into the system a passive user id will be generated and this id will always be used to identify user and access database.

2)Log In: User has to provide email and password to login.Once the user is logged in ,it is to login ever time useless user is logged out.The firebase authentication sstem provides the user id which is snced with a device token that matches the user authenticity,shows registered users,these users are authenticated and can log in to the sstem to use all sstem features.

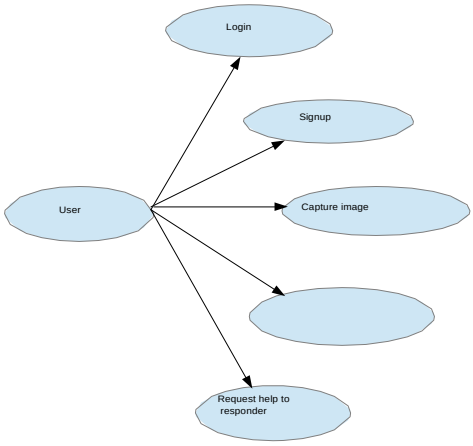

Fig. 1.

User should login with the mail id with password then in signup page username, Phone number,Emergency phone number for conformation purpose after login process if any emergency that image can b captured and send to the near by responder side for the emergency help.

The following usecase diagram shows the responder side of the system.The responder side also having the login/signup with system after that they will get the request from the user in need emergency help.By receiving the request with the help of the real time GPS tracking responder will know the place then help the people.

CONCLUSION:

In this research, we developed the Smart rescue system using the android smartphones, which uses the smart phones to capture the image of the victim and generate emergency alert and send it to the nearest emergency responder side. With real time location tracking for both victim and responder side the system will decrease the death rate of the accident victims by providing emergency help in time. This system also provides help during other emergencies like fire problem, theft/robery and medical emergencies. On the responder side they will be able pin point victim's location on a Google map in real time. Users can view history of previous emergencies.

Count down timer alert: After requesting help the system will present an alert dialog with 15 sec count down, with this the user will be able to cancel the request in case accident didn't occur.

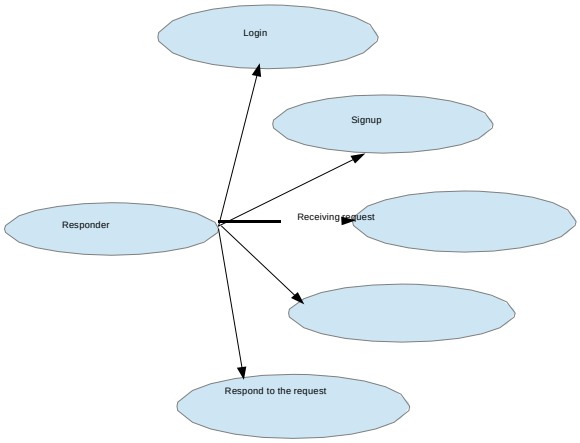

Fig. 2. On the responder side there will login page with signup form then they will get the request from the user by using GPS tracking responder side will respond and helps to the victim.

RESULT AND DISCUSSION:

The above image shows the lo- gin/signup page of the system. In this process to configure that the register person is false positive we will be introducing the new identification.

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