An Android Application for Emergency Call Using GPS

1Prof. Dinesh D. Patil, 2Kaushtubh Jha, 3Geeta Rane, 4Neha Dhande and 5Pranav Soochik, 1Head of Department, 2.3.4.5Student of Computer Science and Engineering, 1,2,3,4,5Shree Sant Gadge Baba College of Engineering & Technology, Bhusawal, India

Abstract: The impulse for every location based information system is: “To assist with the exact information, at right place in real time with personalized setup and location sensitiveness”. Communication during disaster time is very crucial for both rescue team and victim. Emergency never comes with prior intimation. The System is intended to function in case of emergencies in society. The emergencies contain Fire, Medical Emergencies, accident and External Emergencies (Earthquake, Floods, and Strom). Mobile phone has become a powerful platform for communication among people. A growing number of mobile computing applications are on the rise, based on the user’s daily life. We propose the architecture for designing an application for emergency calling through the GPS system which supports 24x7 hrs that is able to call the nearest hospitals, police stations and fire bridges and forward call to them until we get the response. In this application, the user’s location is mark out by the GPS and calls one of these locations the user wants. The system keeps the user connected when he is in crowd. This application alerts to all when someone goes apart from the group members.

Keywords: Location Based Information, Communication, Emergency, GPS, Stay Connected, crowd, Alert.

I. INTRODUCTION

During the last periods, the total number of vehicles in our road has experienced a great extent of growth, making traffic density higher and increasing the driver’s attention necessities. The instant effect of this situation is the theatrical increase of traffic accidents on the road, representing a critical problem in most countries. Tourism is the strongest and largest industry in the world. People go different places for tours where crowd is the main factor. In crowd there are strong chances of losing their dearer ones. A problem is shown that people are not able to stay connected in their group members in crowdie places. Therefore, we intend to explore how to connect with our group members in crowd and how we can get help from concern authorities in case of emergency.

It has played a significant role in connecting people and helping in emergency. In the traditional emergency services, people take help from police station, hospitals and fire brigade by calling those only whose numbers are feed in his or her phone. The poor situation of the real-time performance failed to help people’s growing demand. The emergence of the Internet makes up for this shortfall. However, this approach also has some drawbacks. Since most people use personal computer to access Internet, they cannot get information anywhere and anytime. People need intelligent, professional and personalized user oriented mobile information services.

II. DIFFERENT EXITING APPLICATIONS

There are several applications available for providing emergency help. But there is no any application available for stay connected module. These applications are:

A. Location Based Services Using GPS

A location-based service (LBS) is a mobile application that is dependent on the location of a mobile device, like mobile phone. Virrantaus et al defined LBS services as follows:

“Information services accessible with mobile devices through the mobile network and applying the ability to make use of the location of the mobile device “Open Geospatial Association” defined LBS service similarly: “A wireless-IP service that uses geographic information to serve a mobile user, any application service that exploits the station of a mobile terminal.” A Location Based Service (LBS) is an information and entertainment service, accessible with mobile devices through the mobile network and utilizing the ability to make use of geographical position of the mobile device [1]. Location Based Services (LBS) have two major actions, that is:

- Obtaining the locality of user.
- Applying this information to provide a service [1].

B. VithU

- At the click of power button of your smart phone two times successively, it begins sending out alert messages every two minutes to your contacts that you feed into the app as the designated receivers or guardians.
- The message states “I am in danger. I need help. Please follow my location.”
- It will direct only messages, but it is not the case that every time we will check out our messages.

C. ICE: Emergency Contact

- It helps people who have problem or who are victim of accidents. It is based on the ICE program that consists in saving the contact that is named “ICE” in your contact list. This contact has medical information about you.
- Thus, with only one click on your screen, send SMS signals to all your saved contacts and call rescue workers immediately. Your contacts will know where you are and will be able to help you.

III. PROPOSED SYSTEM

Nowadays in case of any emergency it becomes difficult to people to contact to the hospital or police station. Also in crowdie place, the people lost their dearer one. It is very necessary to avoid these things. Due to the drawbacks of existing systems, there is a need to develop a new application. So our application will overcome all these drawbacks. Our application will work in different modules. Those are as follows:

- In emergency domain, the system will trace the nearby hospital or police station. According to the domain, the call will be forwarded to the concerned authority until the call gets responded.
• In Stay Connected domain, the user will set a specific distance. According to the domain, the system will alert the user if separated out of distance.
• In Other’s domain, the user has to registers him/her to the application. According to domain the new user first registers him/her and then login into the application.

IV. SYSTEM ARCHITECTURE

Android has become popular tool for developing mobile applications. A help 24/7 system consists of two modules, the modules are:

A. Emergency Module

In this module the system will trace the nearby hospital or police station. According to the module, the call will be forwarded to the concerned authority until the call gets responded. This module will be useful in case of emergency. We can take help from any concern authority like hospitals, police stations etc.

B. Stay Connected Module

In stay connected module, the user will set a specific distance. According to the domain, the system will alert the user if separated out of distance. This module will help in crowdie places.

C. Others Module

Here, login and registration are two options. New user can register his facility by using registration option and can register their domain in help24/7 application. Os registered user. Who can update his information in database.

V. GENERATED RESULT

A. Home Activity Form

The Home Activity form includes the short overview of an application. It includes list view which contains 3 main menus such as Emergency, Stay Connected and Others. If you select Emergency module then it contains three submenus as Hospital, Police Station, and Fire Brigade. If you select Stay Connected module it contains two submenus as Master and Slaves. The third menu Others include two submenus as Login and Registration.

B. Calling Form

When user clicks on the Emergency module then it first verifies that the user is registered or not and then track the location of the user and forwards the call corresponding to the given location to the respective selected Hospital, or Police Station or Fire Brigade.

C. Master Form

The Master form of stay Connected module will load all the contacts which are feed into the mobile. And set the particular distance.
Fig. 5.5: Master Form Activity

D. Slave Form

In the Slave form of Stay Connected Module, user has to enter his/her contact number in the textbox and check whether user is connected to specified slaves and master or not.

Fig. 5.6: Slave Form Activity

VI. ADVANTAGES

- It helps people anytime, anywhere.
- It helps to be stay connected with our dearer ones in crowdie places.
- Anyone can take help from concern authorities.
- It provides the facility to forward call to the next nearer concern authority.
- This will helps people who have problem or who have victim of accidents.
- People will also get connected to the authorities immediately and will get help in few minutes.

VII. DISADVANTAGES

- User needs must have Android Device.
- Device must be in network range.
- Battery Backup of mobile should be good.

CONCLUSION

Through this application any person who get problem related to fire, robbery etc. Will easily get connect with police, hospital with just one click. We also introduce a new service called stay connected, which can help us to connect with our dear ones by deciding some range of area.

Acknowledgement

We feel great pleasure in submitting this paper on “An Android Application for Emergency Call Using GPS”. We wish to express true sense of gratitude towards our H.O.D. and Guide, Prof. D. D. Patil. We wish to thank our guide who at very discrete step in preparation of this paper contribute his valuable guidance and help to solve every trouble that arose. Also, most likely we would like to express my sincere gratitude towards our family for always being there when we needed them the most. With all respect and gratitude, we would like to thank all the people, who helped us directly or indirectly, owe our all success to them.

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