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ANDROID BASED WOMEN PROTECTION SYSTEM

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Abstract- The aim of this paper is to present an android based mobile application that provides women protection system which will inform the predefined mobile numbers about the safety and location of the user. This can be accomplished by using an android mobile application which will constantly monitors the Bluetooth connection between the mobile and the hardware. Here, the user can be able to access application manually as well as automatically.

Keywords – Sending SMS, GPS, Women Protection.

I. INTRODUCTION

In Today's World the safety of women is indangere specially in India. The rate of crimes against women is not decreasing but in fact increasing at an alarming rate specially harassment, molestation, eve-teasing, rape, kidnapping and domestic violence. Many preventive measures have been taken by the government to stop these misbehaving activities but still has not affected the growing rate of these crimes and has remained unaffected. The problem of sexual harassment in work place is increasingly coming out day-by-day. Sexual harassment at a workplace is unwanted behavior of a person that causes discomfort, offence or distress to the other. Majority of such cases arehappened to woman by men working at high position in anorganization. Women is getting kidnapped at every 44minutes, raped at every 47 minutes, 17 dowry deaths everyday [1]. The fear of harassment against women is not onlythe condition at outside but it may also happen at homes, Women are not so physically fit as compared to men so incase of a need a helping hand would be a boon for them [2].

Students face incidents like child trafficking and kidnapping, when they are waiting to embark or disembark school bus [5]. Loaded with security apps for women, your smart phone can help you send emergency alerts to chosen people and also let people know about your whereabouts if anything goes wrong [7].

In the current system, if anything happen to women or child they started to go and complaint in police station. This system has more manual work to do. And then police will respond on the complaint to track the person. In the meantime, anything will happen. This system has many disadvantages like there is no systematic protection system. Immediate action was not taken. Police will not find the person immediately.

In this paper, we propose Women protection system based on android application, which will inform the predefined mobile numbers about the safety and location of the users. This Android App constantly monitors the Bluetooth connection between mobile and hardware. When mobile received signal via Bluetooth, after pressing key on the belt (Hardware side), App will fetch the current GPS location and Emergency message to predefined numbers using SMS method. When Bluetooth connection (between hardware and mobile) broken (by forcefully opening

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belt), or if link between mobile and hardware is disconnected, then App will generate alert command and send last recorded GPS location to predefined numbers.

II. BACKGROUND WORK

Operating system is the heart of mobile devices, which controls and interacts with the mobile hardware. Similar precept to an operating system such as Windows, Mac OS and Linux, that controls the desktop or laptop. Device which runs on operating system are smart phones, PDA's and tablet computers.

Everyone wants to do everything fast and on the go. When people where sitting back and diddling with the heavy computers for accessing the internet. An operating system called Palm OS was launched in year 1996 which brought a drastic change in the communication world. With the introduction of Palm OS 2.0 in the year 1997, accessing and sending mail via mobile evolved. The time when Palm OS was standing alone in the Smart phone market in the year 2000, another giant bounced into the market, introducing Windows "Pocket PC 2000"which almost had most of the features of a computer. Entertainment on the go was achievable with windows by launching "Pocket PC 2002"which incorporated MSN messenger and media player with enhanced user interface. Bluetooth an extraordinary invention for file transfer wirelessly. Bluetooth integration was successfully implemented in Windows Mobile 2003 and browsing was made more comfortable with the pocket internet explorer. When windows were acquiring the smart phones market, Palm OS Cobalt bounced back with WiFi and Bluetooth connectivity in 2004.

In 2005, Google acquired the Android Inc and Blackberry's OS 4.1 was made available in the market. Windows interfaced the GPS management and office mobile in their "windows mobile 5". When everyone was going upwards in updating the version and integrating application in the smart phones. The release of "iPhone" in 2007 disrupted the mobile industry and gave a new era of smart phone operating system with user experience which relies on touch based user interaction.

In 2007, a trendsetting year when Google formed the OHA [4] with 79 other hardware, software and telecommunication companies to make entry in to the smart phone market by introducing a legendary open source operating system "ANDROID" resulted in 2008 with Android 1.0 which was available in the market. Android came up with a middleware which is responsible for hardware and communication between applications, and provides open source Android SDK application that allows embedded systems developers to use it to develop their own customizable Android platform applications. Some notable top applications such as Google map, E-mail, Instant messaging, Browser, GPS, Multimedia messaging are widely made available to the people in large only because of Android.

The enhancing grandness of smart phones has sparked off intense contenders amongst software giants such as Google, Microsoft, and Apple, as well as mobile industry leaders Nokia, RIM, and Palm to keep on updating their technology. In 2009, Samsung too joined the roads of smart phones when they released a new operating system called as BADA platform.

Many women safety applications and products are available in the market. 'Chilla' is one of the top rated antirape women application on the Google Play Store [3]. It can recognize shrill screams, even when the phone is in

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the pocket or bag to send out requests. But this feature is enabled only for 30 minutes when the user switches on the shield mode. As screams do not uniquely identify the user the requests can be accidentally triggered by anyone in aloud environment, also screaming can alert the offender. Like most other applications it also features an in-app SOS(Save Our Souls) button and device button interface such as the power or volume button [6]. Another set of similar products require dependence on a secondary device such as sensors and heart rate monitors [1] [8].

III. PROPOSED WORK

System Model

The system can be shown in the Figure 1 in which mainly has one entityis user of the mobile.

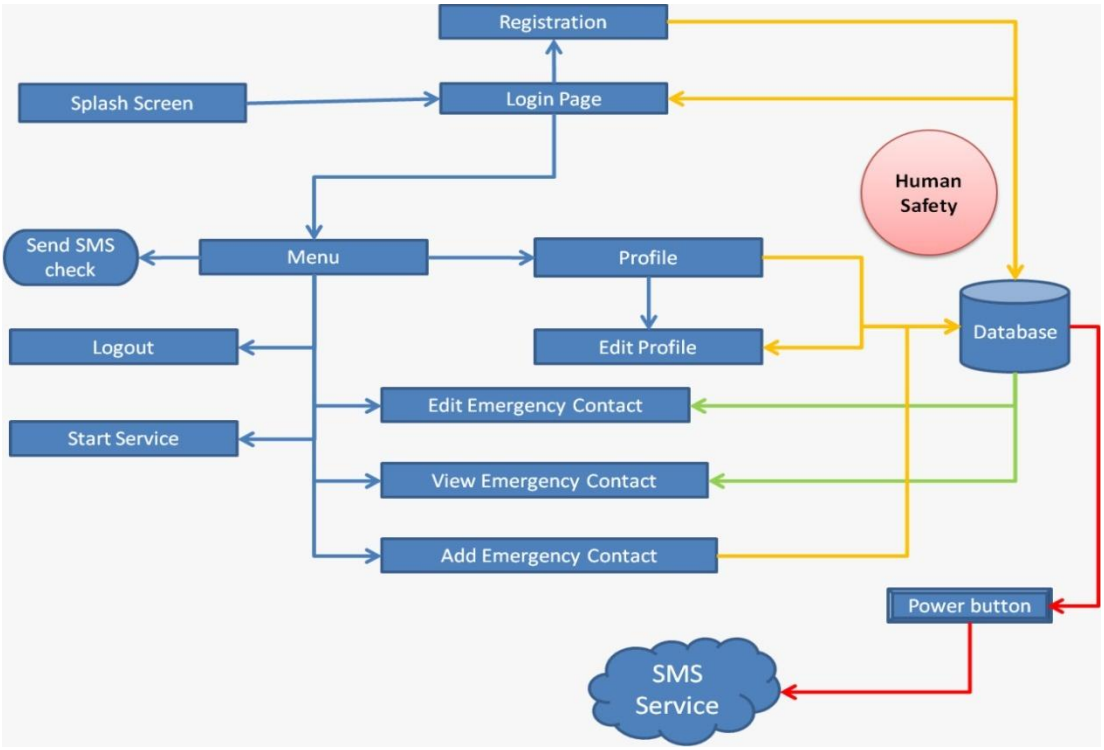

Figure. 1: System Overview

The system has following implementation modules:

User Module

- ✓ In this module, user has to register and login to the system.
- ✓ Then she adds the emergency contact information for sending sms in panic times.
- ✓ In this module, user press the hardware of the device then the device identify the user in the trouble and communicate with the software and send the sms to the emergency contacts added in the above.
- ✓ In that sms user current location is shared using google maps.

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Emergency Contact Module

- ✓ In this module, user has to login to the System.
- ✓ Then she can able to add the emergency contact information like name of the person and mobile number.
- ✓ If she wants edit the information then he able to change the details using edit option.

SMS Module

- ✓ In this module, the application SMS has been sent via mobile network.
- ✓ In SMS the user location will be shared as Longitude and Latitude values.
- ✓ The current location details are fetched from the GPS services.

Power Button Module

- ✓ In this module, The SMS is send to the predefined numbers with the location details when the user presses power button twice.
- ✓ In the same way SMS send to the Emergency Response Centre(ERC), the user presses power button three time.

The process the women protection system is as follows:

- The proposed method implements an android application "Women Protection" in which users can manage the emergency contact information.
- Here, Users enable the GPS Services and SMS Services in their mobile.
- In this project we provide the communication between power button and services. When the power button presses 2 times this application activates and gather location information and send SMS to Emergency Contacts which added in the application.

IV. RESULTS AND DISCUSSION

In this system we developed mobile based women protection system to improve the security. The following screens show that our system is more users friendly and efficient.

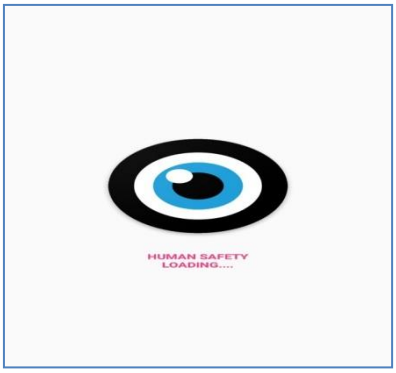

Figure. 2: Loading Page

The user interface of the application after installing, will appear as loading page screen shown in figure-2.

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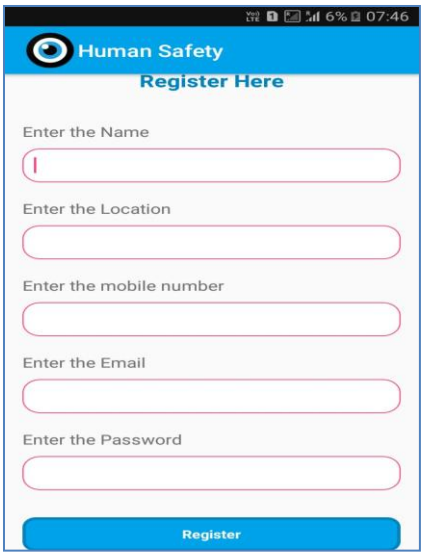

Figure. 3: Registration Page

Here is a registration page for new users, they can register by providing the details listed in the registration page.

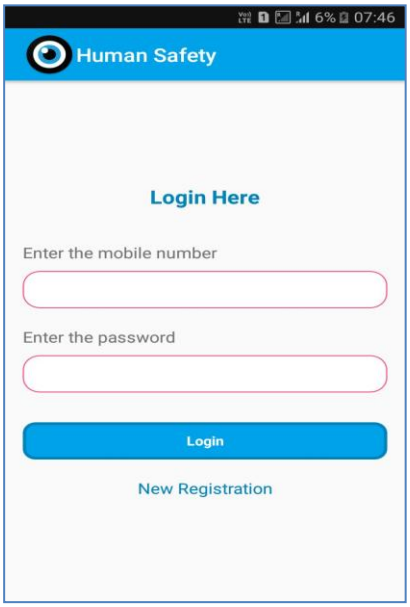

Figure. 4: Login Page

After registered, the user can login into the application using Mobile number and Password.

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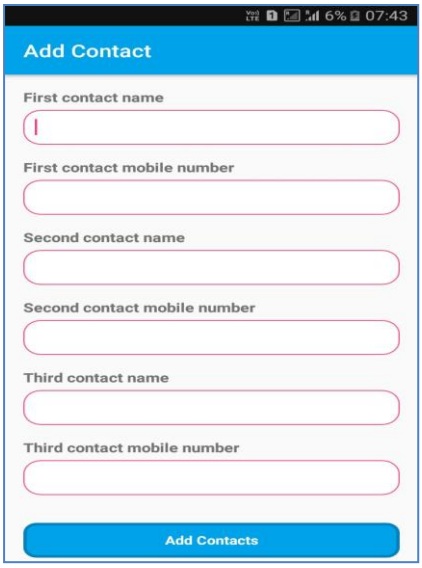

Figure. 5: Add Emergency Contact

Then, add Emergency contacts with details. This application sends the Latitude and Longitude values from the mobile to the saved contacts thorugh the SMS when the user presses the panic button on the mobile.

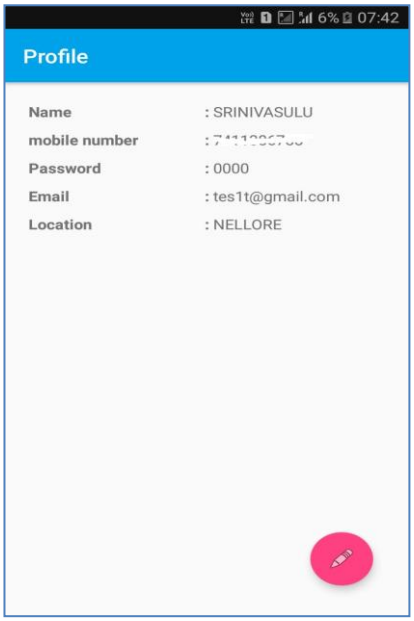

Figure. 6: Profile Page

User can view their profile page and verify the details whichthey entered. If there is any changes, they can edit and update the details.

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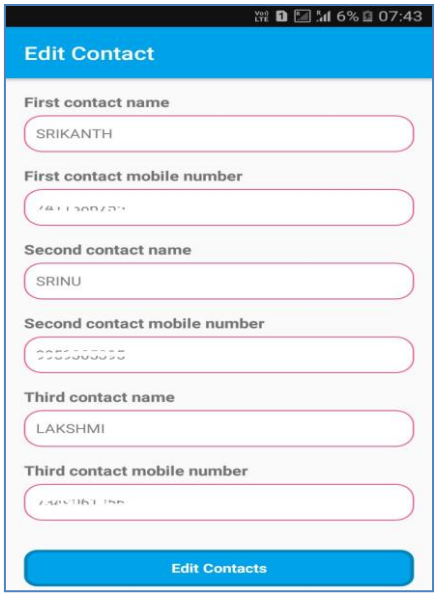

Figure 7: Edit Emergency Contact

In the same way, user can also edit the Emergency contact details, have saved earlier. Because they can get help from them by finding the user location.

V. CONCLUSION

In this paper, we proposed an android based human safety application in which for human safety we send the location information mobile user to emergency contacts in any emergency situations. In this application, we add three contacts to send sms because of considering sms balance. In the future, we find the cost efficient solutions to send sms to all the contacts available in mobile.

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