

Stay Safe Application

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Abstract - Stay Safe Application is an innovative safety application for women, senior citizens and anyone who needs assistance in an urgent situation. Women all over the world are facing a lot of physical harassment in public places such as railway-bus stands, foot paths etc. There is a need of advanced women security system to provide the safety measure in public places as well as travelling alone through public transports. This paper proposed a new model for the women security in public places which aims to provide the 100% safe environment. Women's security is a critical issue in today's world and it is very much needed for everyone over such an issue. This paper describes a "Stay Safe Application" that provides the combination of GPS device and specialized software to track the location as well as provide alerts and messages with sending an image related with situation. Now a days due to recently happened cases such as rape by drivers or colleagues, burglary etc., employee security, especially women employee security has become very important. System uses the Global Positioning System technology to find out the location of person. The information of person provided by the device can be viewed on Google maps using Internet. The IT companies are looking forward to the security problem and require a system that will evaluate the problem of women employees' security working in night shifts. This paper focuses on the proposed model that can be used to deal with the problem of security issue of women employees using GPS and GSM based system.

Keywords - GPS (Global Positioning System); GSM (Global System for mobile)

I. INTRODUCTION

Stay Safe Application is an innovative safety application for women, senior citizens and anyone who needs assistance in an urgent situation. This application is designed to get you help with minimal or unnoticeable

efforts. Security in our society today's possible emergency are:

- Being stalked when walking home from work.
- Being followed by a strange vehicle at night.
- Attempted assault in a deserted area.
- Hiking/camping/picnic emergencies.
- Attempted burglaries at home.

This paper presents an alternative approach to the traditional methods. Our Application will notify friends or family if you are in some trouble and need a help from them. It sends your Android phone's location through GPS by using SMS so you can be found fast. Also it automatically sends an image related with that situation to those emergency contacts. This paper presents an analysis review on the principal need of intelligence security system with technology requirement and challenges to build the system. This system can help the victim to get emergency help from the friends or family. This reduces risk and brings assistance when needed. This paper describes about a safety triggering application developed in android platform.

The uniqueness of this application apart from other Safety application available is that it sends an image related with the situation to the emergency contacts. Many applications available in the market send only a custom message to the registered number but not the location of the user. In the proposed and tested application the longitude, latitude information and the general idea of the place of the current position of the mobile user is added with the custom message that had been initially set in the application and is transmitted to the phone registered numbers. This feature of the application not only helps in finding the exact location of the person in problem but also will help the police to trace the location of incident easily.

The corporate and IT sector is the base of Indian economy and the base of the corporate and IT sector are the employees working for a company. Today, girl's

security is a major issue. Women in India have to face a lot of problems, especially professional women employees have to face lot of problems while working for a company. Many physical harassment cases were caused in recent years. It is responsibility of the company to look after their employee's safety.

II. LITERATURE REVIEW

P.Kalyanchakravarthy[1] -Android is a java based operating system which runs on the Linux 2.6 kernel. It's lightweight and full featured. Android applications are developed using Java and can be ported to new platform easily thereby having huge number of useful mobile applications. This paper describes about a Safety Triggering application being developed and its successful implementation with tested results. The application has target users those sections of the people who surprisingly fall into a situation where instant communication of their whereabouts becomes indispensable to be informed to certain authorized persons at remote end. This application main purpose is for women's safety. When we feel that we are in emergency situation, for example travelling alone in the Auto/Cab at night time we can use this application so that on one click we can send our location to our family members and to any police stations continuously until we stop with password based button.

Bramarambika Thota and Udaya Kanchana Kumar P[2] The usage of smart phones equipped with GPS navigation unit have increased rapidly from 3% to more than 20% in the past five years. Hence, a smart phone can be used efficiently for personal safety or various other protection purposes especially for women. This paper presents Sauber, a personal safety application developed for smart phones of android platform. This app can be activated by a single click when the user feels she is in danger. This application communicates the user's location to the registered contacts for every few seconds in the form of message. Thus, it acts like a sentinel following behind the person till the user feels she is safe. The key features of this application are along with the user's location, one of the registered contacts gets a call. Also, the registered contacts and GPS location are saved from time to time in a database.

Mr.Magesh Kumar.S, Mr.Raj Kumar.M [3] this project presents an alert system for PROB detection using common commercially available electronic devices to both detect the PROB and alert authorities. Data from the

accelerometer is evaluated with several threshold based algorithms and position data to determine a PROB. The threshold is adaptive based on user provided parameters such as: height, weight, and level of activity. The algorithm adapts to unique movements that a phone experiences as opposed to similar systems which require users to mount accelerometers to their chest or trunk. If a PROB is suspected a notification is raised requiring the user's response. If the user does not respond, the system alerts pre-specified social contacts with an informational message via SMS. If a contact responds the system commits an audible notification, automatically connects, and enables the speakerphone.

If a social contact confirms a PROB, an appropriate emergency service is alerted. Our system provides a realizable, cost effective solution to PROB detection using a simple graphical interface while not overwhelming the user with uncomfortable sensors. IPROB is very powerful software especially developed for the safety of girls, whenever somebody is in trouble they don't have to sit and find contacts or find ways to send short message service, or message the near ones. They might not have so much time... All that they have to do is shake the smart phone above the threshold value, vigorously. Immediately a message alert is sent to the person's mom, dad and whoever they wish to, if their guardians also have a smart phone. Even though if it is in silent mode. When a message called ALERT is received it automatically changes its profile to general, and gives a voice notification YOUR SON // DAUGHTER IS IN TROUBLE PLZ HELPS.... PLZ HELP.... PLZ HELP.... REPEATEDLY AS A RING TONE until they listen and stop it.

Abhijit Paradkar and Deepak Sharma[4] According to the reports of WHO, NCRB-social-government organization 35% Women all over the world are facing a lot of unethical physical harassment in public places such as railway-bus stands, foot paths etc. In this paper the authors have reviewed of various existing systems on women security. The authors have felt a need of advanced women security system to provides the safety measure in public places as well as travelling alone through public transports (school buses, company vehicle etc). This paper proposed a new model for the women security in public places which aims to provide the 100% safe environment.

Ravi Sekhar Yarrabothu And Bramarambika Thota[5] In today's world, people using smart phones have increased rapidly and hence, a smart phone can be used efficiently for personal security or various other

protection purposes. The heinous incident that outraged the entire nation has wakened us to go for the safety issues and so a host of new apps have been developed to provide security systems to women via their phones. This paper presents Abhaya, an Android Application for the Safety of Women and this app can be activated this app by a single click, whenever need arises. A single click on this app identifies the location of place through GPS and sends a message comprising this location URL to the registered contacts and also call on the first registered contact to help the one in dangerous situations. The unique feature of this application is to send the message to the registered contacts continuously for every five minutes until the “stop” button in the application is clicked. Continuous location tracking information via SMS helps to find the location of the victim quickly and can be rescued safely.

III. WORKING OF PROPOSE MODEL

Base on the critical analysis and the requirement of safety functionality the modules are selected as:

A) Database Module:

The user needs to register the emergency contact numbers with the system which are stored in Register Contact Database. It uses SQLite database.

B) Global Positioning System (GPS) module:

It is a precise positioning tool, tracks the location in the form of longitude and latitude based. The GPS Coder Module used this information to search an exact address of that location as the street name, nearby junction etc. In case where GPS is disabled then the system will only send the longitude and latitude. Internet is mandatory.

C) GSM System Module:

Global System for Mobile communication (GSM) SIM card is inserted inside the mobile device to send and receive the messages using GPRS. The GSM SIM card number is registered with the system. With increasing usage of GSM, network services are expanded beyond speech communication to incorporate many other custom applications, machine automation and machine to machine communication.

D) Activate Button Module:

This module will going to enable the silent mode and data service automatically. After enabling the data service the location of the person is automatically send to the contacts that are added in the database. After that the automatically camera is going to start and the image will be capture by the user at that moment. This Image will be going to send to the contacts that are added.

e) System Architecture

In the design phase the system architecture is established. This phase starts with the requirement document delivered by the requirement phase and maps the requirement into architecture. System design is the process of describing, organizing and structuring the components of a system both at the architectural level and at detailed level. There are two aspects that need to be focused to understand the elements of design that are

- Components of the system design
- Input of the system design process

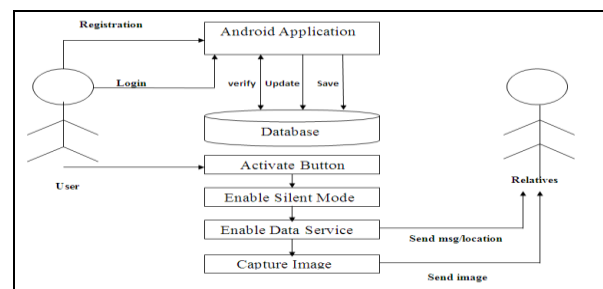


Figure 4.1 System Architecture

IV. FFUTURE SCOPE

As the technological changes or new requirement from user to enhance the functionality of product may requires new version to introduce. Although the System is complete and working efficiently, new modules which enhance the system functionality can be added without any major changes to the entire system. Among the various modules few are identified, which couldn't be included in the last increment due to time constraints. Hence, the advance technology makes the system more robust and reliable. As the new modules provide the functionality which enhance the safety. This mobile application is helpful in future when any problem arises in travelling or any kind of situations.

- As the technology changes, it is possible to upgrade the system and can be adaptable to desired environment.
- Any further changes can be easily adaptable, because it is based on object-oriented design
- Based on the future security issues, security can be improved using emerging technologies.

V. CONCLUSION

This project focuses on providing security to users which includes location-based services, SMS services, GPS services and system Architecture. Throughout the development of the first phase of the project, we have learned much more new skills ranging from vital experience in working as a team and the new technologies.

In the first phase of this project we have completed some of the modules which include registration module in which user registers password and id which is then used for login module to use the application. In next module we have given one activate button which has several uses. This activate button is used to enable silent mode and data service. In last phase of this project we have completed all modules. We have provided one option to user to add any five emergency contacts, another one is to update that added contacts. Also we have implement one message box which will contain one text message and link of the GPS location having longitude and latitude forward to those emergency contacts. Also we have implemented one mechanism to send an image related with that situation. It can be concluded that the system helps in some of the cases the system can provide useful evidences. Since the system can capture image of incidences which can act as the evidences. This is the "Stay Safe App" which is very useful application mainly for girl's safety. When we feel that we are in emergency situation, for example travelling alone at night time we can use this application. So that on one click we can send our location to our family members and to any police stations. So once we click on activate button it continuously send updated locations messages to all authorized persons. So this application is having both safety and security which needs the engineering code of conduct which is essential in the today's world.

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