

Women Security Using Android Application

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ABSTRACT: Women are adept at mobilizing diverse groups for a frequent cause. They often work across racial, sacred, opinionated, and intellectual divides to encourage serenity. We are all aware of importance of women's security, but we must recognize that they should be well secluded. Women's are not physically powerful as compared to men, in crisis situation a helping hand would be a relief for them. Many unfortunate incidents have been taking place in woman's case. Problems may come from any direction such as women walking on the road after the work, going to super market or many other reasons for which they go alone. People at home are not sure of their return safely. Another factor is woman die without knowing the reason as they attend excursions and industrial trips conducted by the organizations. It happens due to attacks on woman but not suicides. With the rapid growth of Android user and cheaper internet cost we can provide a simple medium to create safety awareness among the working and professional women of young and teen age. Women Safety Application can show you exact location of the women in help to her relatives, guardian and friends along with the specific location, where you can go and help it. Women Safety Application system offers the added protection of being track by relatives on different time interval and different location. We focus on the proposed model that can be used to deal with the problem of security issue of women using GPS and GSM based tracking system. And design the application as emergency application in mobile phones.

I. INTRODUCTION

MOBILE COMPUTING

Mobile Computing is a technology that allows transmission of data, voice and video via a computer or any other wireless enabled device without having to be connected to a fixed physical link. The main concept involves –

- Mobile communication
- Mobile hardware

- Mobile software

MOBILE COMMUNICATION

The mobile communication in this case, refers to the infrastructure put in place to ensure that seamless and reliable communication goes on. These would include devices such as protocols, services, bandwidth, and portals necessary to facilitate and support the stated services. The data format is also defined at this stage. This ensures that there is no collision with other existing systems which offer the same service. Since the media is unguided/unbounded, the overlaying infrastructure is basically radio wave-oriented. That is, the signals are carried over the air to intended devices that are capable of receiving and sending similar kinds of signals.

MOBILE HARDWARE

Mobile hardware includes mobile devices or device components that receive or access the service of mobility. They would range from portable laptops, smart phones; tablet Pc's, Personal Digital Assistants. These devices will have a receptor medium that is capable of sending and receiving signals. These devices are configured to operate in full- duplex, whereby they are capable of sending and receiving signals at the same time. They don't have to wait until one device has finished communicating for the other device to initiate communications. Above mentioned devices use an existing and established network to operate on. In most cases, it would be a wireless network.

II. LITERATURE SURVEY

2.1 TITLE: "Safety Solution for Women Using Smart Band and CWS App", **AUTHORS:** A. Z. M. Tahmidul Kabir, Al Mamun Mizan, Tasnuva Tasneem,

In this project, we are advancing an IoT device along with an android app that can make women's movement safer. Women can get swift and supreme safety support by pressing the device's emergency switch. If any incident occurs, this device can track the user's location in real-time and

send it to the nearby police box and volunteer. The user can also get location of the nearest safe zone by this device as well. In addition, this device functions in both online and offline mode. If there is no internet available, the user can still use the device to access the nearest police box and volunteer support. The device consists of Arduino nano, GPS, GSM, Bluetooth, etc. The aggregate of all these elements collectively offers this device to be affordable and easy to navigate. Maximum Women's safety is the utmost concern of our project. So, we designed our project with few unique features. One of the key features is that our system can work in both online and offline mode. Police and volunteers who are positioned near the user's location in both modes, they will assist the user. On the other hand, the most important and unique feature of our app is that when the user is in trouble, she will get help by fixed volunteers and movable volunteers who are closest to the user. The app user will get help much faster because this app does the job of finding volunteers at its own discretion. We will add a watch interface and pulse sensor and Blood Oxygen Sensor with Smart Band so that the user can provide information about her physical condition and her family can feel relaxed by receiving this information.

DISADVANTAGE

Need to be a camera module to the device which will have video and audio recording options.

2.2 TITLE: “Innovative Embedded Shoe Design for Women Safety”, AUTHORS: Shoukath Cherukat, Pooja Kubsud, Vishnu Suresh

This paper discusses the design of such an embedded device. This proposed model uses a microcontroller based embedded device to be placed inside the women shoe and an android application specially designed for Safety of Women. This app can be activated by a single click of button, whenever need arises. All that the victim needs to do in case danger is to just remove the shoe and app identifies the location of place, accordingly sends a message to the saved contacts and also make calls to the emergency numbers saved. The unique feature of this application is that user can modify and save the selected contact number and call and message will be sending to all contacts at least for three times with a gap of five minutes. The best way to minimize chances in becoming a victim of violent crime is to identify and call on resources to help you out of unsafe situations. Whether you are in instant trouble or got separated from friends during night and do not know how to get home, having these safety models and apps on your phone can diminish your risk and

bring assistance when you require it. In this paper, we discuss a model which will help to ensure the safety of the women all over the world. It reduces the risk and helps them in need by identifying the location of person who is in danger. This project is very much helpful for any woman. Because when a woman is in danger position then she simply has to remove the shoe. By simply removing the shoe the app, it sends the call for the added guardian numbers and sends the message that she was in danger and sends the location message to the all saved guardian contacts. Through this mobile app we can alert the people at home that a woman belonging to their house is safe or not.

DISADVANTAGE

When the mobile network is not available, it will be an initial alert or switch off condition.

III. SYSTEM ANALYSIS

EXISTING SYSTEM

In existing system, implement many apps for secure women's at the time emergency. Such a, FIGHT BACK: This app is developed by Mahindra faction. In earlier days, this app was not complimentary, customer have to compensate for this app. But after Delhi gang rape this app is on hand at no cost. This app sends a message to your friend or contacts that “user is in trouble” using Email, GPS, SMS and GPRS. This app works on that mobile which supports Android Java Programming. Using this application, you can send SMS of your location using maps also GUARD: This app is developed basically for women safety intention. This app put a phone call by your name, instantaneous location, and emergency hit to your selected friends. In this app you have to give your details in profile sheet e.g. birthdates, tallness, weight, eye-color, blood group, hair-color, etc. This app is also used in I Phone, IPod, BlackBerry, Windows Phone etc

DISADVANTAGES

- There are many electronic devices and systems are used to provide security for human:-
- Spy camera is the most popular method for providing security which is unreliable.
- The existing systems are of wired systems and most of them are alarming systems which is Conventional and cannot communicate efficiently
- All applications are installed as normal applications
- Can't provide any priority to the women security application

IV. PROPOSED SYSTEM

Women's security is a critical issue in today's world and it's very much needed for every individual to be acting over such an issue. This project describes a GPS and GSM based "women security system" that provides the combination of GPS device as well as provide alerts and messages with an emergency button trigger. Whenever somebody is in trouble they might not have so much time, all that they have to do is pressing the volume key. Our system provides a realizable, cost effective solution to problem detection. The proposed system is especially for the women safety and overcomes the disadvantages of existing system. This proposed system is 'GSM & GPS Based women Security System'. It consists of GPS device i.e. any Android Phone and an emergency button. GPS device must to be placed inside the device (Android Phone). The device will provide the position information such as latitude, longitude of women. An emergency button is fixed on the device at a particular position. Whenever women in any kind of trouble she will press the emergency button and an alert will be immediately sent to the nearest police station. Then it is the responsibility of police squad to handle the situation.

ADVANTAGES

- This project presents an alert system for Women safety detection.
- The system provides a realizable and efficient.
- The application is easier to use the entire woman.
- The application is normal budget.
- For user there is no need of external hardware or software to use this application
- This application is free for user, which does not affect user's cost
- User only need a Smartphone or tablet which has Android OS to the work.

SYSTEM IMPLEMENTATION MODULES

- Application creation
- Set as emergency app
- Set Numbers
- GPS tracking
- Alert message intimation

V. SYSTEM DESIGN

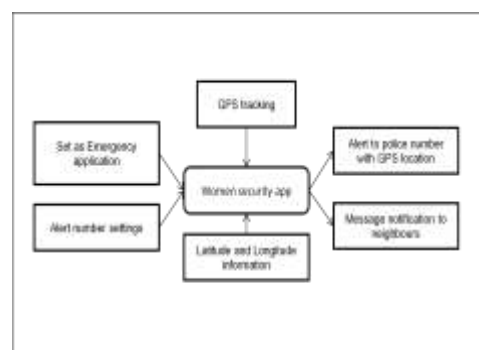
SYSTEM ARCHITECTURE

A system architecture or systems architecture is the conceptual model that defines the structure, behavior, and more views of a system. An architecture description is a formal description and representation of a system,

organized in a way that supports reasoning about the structures and behaviors of the system. System architecture can comprise system components, the externally visible properties of those components, the relationships (e.g. the behavior) between them. It can provide a plan from which products can be procured, and systems developed, that will work together to implement the overall system. There have been efforts to formalize languages to describe system architecture; collectively these are called architecture description languages (ADLs).

Various organizations define systems architecture in different ways, including:

- An allocated arrangement of physical elements which provides the design solution for a consumer product or life-cycle process intended to satisfy the requirements of the functional architecture and the requirements baseline.
- Architecture comprises the most important, pervasive, top-level, strategic inventions, decisions, and their associated rationales about the overall structure (i.e., essential elements and their relationships) and associated characteristics and behavior.
- If documented, it may include information such as a detailed inventory of current hardware, software and networking capabilities; a description of long-range plans and priorities for future purchases, and a plan for upgrading and/or replacing dated equipment and software
- The composite of the design architectures for products and their life-cycle processes.



VI. SOFTWARE DESCRIPTION FRONT END - ANDROID STUDIO

Android (stylized as android) is a mobile operating system developed by Google, based on the Linux kernel and designed primarily for touch screen mobile devices such as smart phones and tablets. Android's user interface is mainly based on direct manipulation, using touch gestures that

loosely correspond to real-world actions, such as swiping, tapping and pinching, to manipulate on-screen objects, along with a virtual keyboard for text input. In addition to touch screen devices, Google has further developed Android TV for televisions, Android Auto for cars, and Android Wear for wrist watches, each with a specialized user interface. Variants of Android are also used on notebooks, game consoles, digital cameras, and other electronics. World is contracting with the growth of mobile phone technology. As the number of users is increasing day by day, facilities are also increasing. Starting with simple regular handsets which were used just for making phone calls, mobiles have changed our lives and have become part of it. Now they are not used just for making calls but they have innumerable uses and can be used as a Camera, Music player, Tablet PC, T.V., Mobile browser etc. And with the new technologies, new software and operating systems are required.

DEFINITION OF ANDROID OPERATING SYSTEM

Operating Systems have developed a lot in last 15 years. Starting from black and white phones to recent smart phones or mini computers, mobile OS has come far away. Especially for smart phones, Mobile OS has greatly evolved from Palm OS in 1996 to Windows pocket PC in 2000 then to Blackberry OS and Android. One of the most widely used mobile OS these days is ANDROID. Android does a software bunch comprise not only operating system but also middleware and key applications. Android Inc was founded in Palo Alto of California, U.S. by Andy Rubin, Rich miner, Nick sears and Chris White in 2003. Later Android Inc. was acquired by Google in 2005. After original release there have been number of updates in the original version of Android.

VII. CONCLUSION AND FUTURE ENHANCEMENT

CONCLUSION

This mobile application is very much helpful for any woman. Because when a woman is in danger position then she simply touch this Safety mobile app and alert their guardians that the woman is in danger. By simply touching the app it sends the call for the first added guardian number and sends the message that she was in danger and sends the location message to the all saved guardian contacts. Through this mobile app we can alert the people at home that a woman belonging to their house is safe or not. The problem of the women safety is increased rapidly in this

environment, so I proposed as an effective Android application to prevent such type of the suspicious or natural disaster, by alerting the concern authorities using the android mobile phone which helps to stop such type of illegal activates and to trace the concern.

FUTURE ENHANCEMENT

This mobile application is helpful in future when any problem arises in travelling or any kind of situations.

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

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