

SCIWARS Android App for Women Safety

¹P.Dhiviyabarathi, ²M.Elamathi, ³V.Elakiya, ⁴V.N. Arumbu,

^{1,2,3} UG Student, Department of ECE, IFET College of Engineering, Villupuram, Tamil Nadu, India

⁴Assistant Professor, Department of ECE, IFET College of Engineering, Villupuram, Tamil Nadu, India

ABSTRACT- Every human on this planet is working hard for a comfortable living and wants to safeguard his investment that he has made in his day to day work. Ultimately, at the end of the day we all seek for security of life and our belongings. The major question to ask your self is we really secure? The world is not perfect and we are susceptible to the dangers that exist in the society hence the urge to feel protected and safe is fulfilled by the use of hidden cameras. A hidden spy video camera can be available anywhere. We should be conscious about this aspect, because we might be in a particular place, where our actions will be recorded without us being aware of it. Unfortunately, the very reasons that make this device so effective can also lead to its misuse by some. Sex scandals involving women and children have accrued due to being recorded illegally. Profits are made through exploiting this to others whose actions have been monitored by a hidden camera. Victims' Lives are bust through the same technology that should have been used to make people feel secure. There should be some way or technique which can help the person from spy cameras to maintain their privacy. So we have to propose SCIWARS (Spy Camera Identification And Woman Attack Rescue System) intelligent alert system which will help to prevent from being victim of any kind of attack or spy cameras. This system contain two models, first model will detect hidden cameras, which are hidden in hotels rooms, changing rooms. The second models will help victims from attack like physical violence, if victims feels unsecure and helpless at anytime then by pressing any key of her mobile continuously the alert message is send to nearest police control room, family, ambulance, Friends which are in emergency list that alert message will contains the entire locations of the victims place and image of that location which are taken by camera of her mobile. This will helps the victims to avoid attack and it also helps to police to reach that place as fast as possible for provide help to victim and save her from attack.

KEYWORDS- GPS Terminology, Audio Recording , AutoCall Receiving System, GPS Tracker.

1. INTRODUCTION

Women are adept at mobilizing diverse groups for a frequent cost. They often work across racial, scared, 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 compare to men, in crisis situations a helping hand would be a relief for them. The best way to minimize your chances of becoming a victim of violent crime (Robbery, Sexual Assault, Rape, Domestic violence) is to identify and call on resources to help you out of unsafe situations. Whether you are in instant trouble or get separated from friends during a night out and don't know how to get home, having these apps on your phone can diminish your risk and bring assistants when you require it. Although several were formerly developed for students to reduce the risk of physical attack on campus, they are also suitable for all women. The current system is developed on the basis of Android Platform. Android is an open source Software platform and operating system for mobile devices. It is based on the linux kernel. It was developed by google team and allows writing managed code in the JAVA Language.

II. ANDROID APPLICATION

To control the relays with the help of microcontroller relay is connected to the 4th port of the PIC Microcontroller. By pressing the button on the GUI of the Android Smartphone we can control the relay.

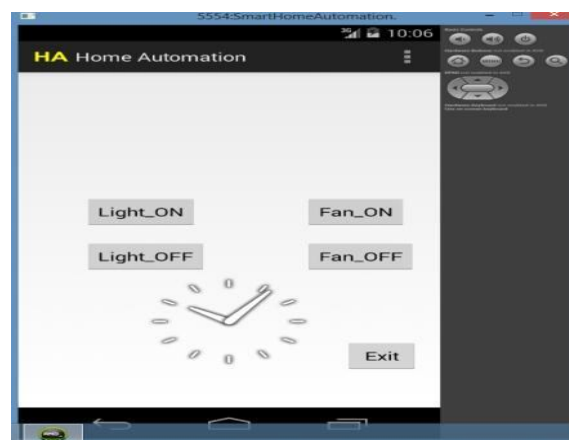


Fig.2.4. User Interface

Android's releases prior to 2.0 (1.0, 1.5, 1.6) were used exclusively on Android mobile phones. Most Android SmartPhone and some Android tablets now use a 2.x release and Android 3.0 was a tablet-oriented release but does not officially run on mobile phones. The current Android version is 4.3. Android's releases are nicknamed after sweets or dessert items like Frozen Yogurt ("Froyo") (2.2), Ginger Bread (2.3), Honeycomb (3.0), Ice Cream Sandwich (4.0), Jelly Bean (4.1) and KitKat (4.4) being the recent one.

Android applications are written in the Java language. The Android Software Development Kit (SDK) provides all necessary tools to develop Android applications (API). This includes a compiler, debugger and a device emulator, as well as its own virtual machine (emulator) to run Android programs. The Android SDK provides tools for code compilation and packaging data and resource files into an archive file with „.apk“ extension called as an Android package. Android devices used the „.apk“ file to install the application. Android's application framework allows for the creation of extremely feature rich and novel applications by using a set of reusable components. The amalgamation of the Android development environment with the Bluetooth wireless technology is known by Androids support for the Bluetooth network stack, which permits a device to wirelessly exchange data with another Bluetooth device (SmartPhone Bluetooth with Bluetooth Module). The application framework enables access to the Bluetooth functionality using the Android Bluetooth APIs. These APIs allow wireless applications to connect to other Bluetooth devices for point-to-point and multipoint wireless features. Using the Bluetooth APIs, an Android application can carry out the following functions:

III. EXISTING SYSTEM

As part of our initial research, we decided to investigate applications that offer the same or similar services for android and other platforms. The aim is to see how these applications work and to see how they can be improved. To date it is identified following Android apps that offer the relatively similar service.

IV. ANDROIDS APPS FOR WOMEN SECURITY

Today the cases of atrocities on women are growing. In this types of cases mobile play an important role for safety of women. Now Android is budding some apps for women security purpose. These apps are as follows –

- **FIGHT BACK:** - These 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 contracts that "user is in trouble" using E-mail, GPS, SMS & 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.
- **GUARDILY:** - 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 example birth date, tallness, weight, eye color, blood group, hair-color, etc. This app is also used in i-phone, i-pad, blackberry, windows phone, etc. flexibility to inform your friends, police station or a combination of all to if you need help.
- **LIFE 360 FAMILY LOCATOR** This is free app. In emergency this app report to your friends and family. Using this app you can find relative members on personal map. This app help us to know about your family, whether they are safe or in trouble. Life 360 shows wellbeing places like hospital, police station, etc near to you as well as recent crimes nearby and registered sex offenders.
- **STREET SAFE:** - This application is developed on world wide women day. It will call community to help you in any situation. This app has 4 features for crisis which would be started by just clicking on the button. This features are as – first, it automatically updates on your facebook account with your recent location. Second, SMS will be send to choosen associates with your locality. Third, an alarm is started with large volume on your mobile. Fourth, call is to be found to your choosen emergency number.

V. PROPOSED SYSTEM

To develop a system for android uses for keeping track through several application. The application uses some GPS terminology for location mapping and tracking the restricted zones, and detecting hidden web camera's by using android mobile devices. And womens attack handling system for womens security and protecting against rape and from other harassment.

VI. HIDDEN CAMERA DETECTION MODULE

This module will detects hidden cameras which are hidden in hotel rooms, changing rooms. Every night-vision cameras emits infrared rays, so when victim will enters in room if there is any hidden camera, this will happen by catching the infrared rays through her mobile while she entering in a room. After getting alert message, she can send this message to police control room or NGOs to expose the reality of that mall or hotel.

VII. SYSTEM DIAGRAM

ONWATCH

This is persona security application. In urgent situation user can alert through this applicaton to his friend. Through this app you can send „Time Based Alert“ just like if you are not reached on given time then within one hour it will alert to your family and friends. This app has 6 custom-made alert methods that allow you the Detection system

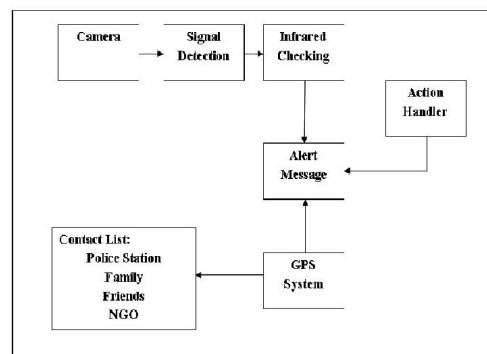


Fig.3.1 shows the block diagram of hidden camera detection system. Initially, when the user entered into the area where hidden cameras are placed. The signal detecting system will help in detecting infrared rays coming out from hidden cameras. As soon as camera will detect infrared rays, it will generate an alert message to user using action handler. At the same time, the GPS system will generate address of location where the hidden camera is detected and its user responsibility to decide whether to register a complaint or not.

VIII. WOMEN'S ATTACK HANDLER MODULE

This module will helps victims from attack like physical violence, if victims feels unsecure and helpless at any time then by pressing any key of her mobile continuously the alert message is send to nearest police control room, family, Ambulance, Friends which are in emergency list that alert message will contains the entire location of that victims place, and images of that location which are taken by camera of her mobile. This will helps victims to avoid attack and it also helps police to reach that place as fast as possible for providing help to victim and save her from attack.

SYSTEM DIAGRAM

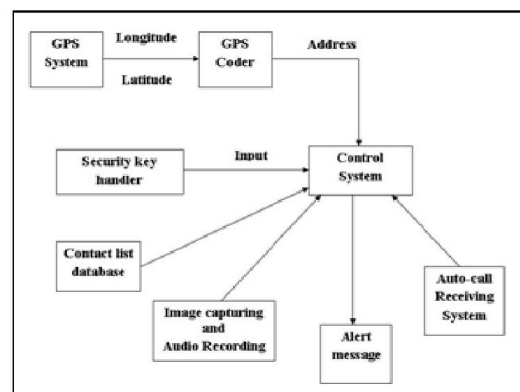


Fig.3.2 shows the Womens Attack Handler System.

When there is attack on women, the application will get activated by pressing any key of mobile phone. After pressing the key, Geo coder find the location and send it to members which are included in contact list. Also it will capture the images of that location and send it with the message. Audio recording will be also done and it is stored in secret location of mobile. Auto-call Receiving system is also done in this module.

IX. TEXT SUMMARIZATION ALGORITHM

This summarization is to compress an original document into a summarized version by extracting almost all of the essential concepts with text mining techniques. Text summarization can be performed in two different approaches :extraction and abstraction. The extraction approach is to construct the summary by taking the most important sentences out of the original document .In contrast, the abstraction approach is to form summary by paraphrasing sections of the original document. In general, abstraction is more powerful and generate closer result to those composed by humans than extractions

SYSTEM DIAGRAM

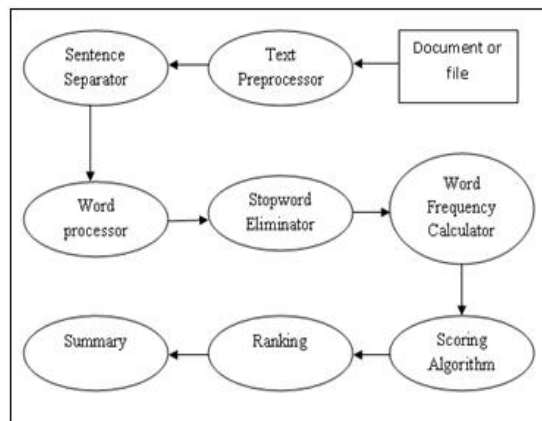


Fig.3.3 Algorithmic Execution

TEXT PREPROCESSORS

Text processors is used to translate prepared file like Email file into simple text file for further processing.

SENTENCE SEPARATORS

This goes through document and separate documents on basis of some rule or criterion like sentence should be finished with dot (.) and their should be gap between sentences etc.

X. WORD PROCESSOR

The word separator works like sentence separators only its separate words based on some regulation or criterion like space denotes end of words.

International Journal of Innovative Research in Science, Engineering and Technology

An ISO 3297: 2007 Certified Organization

Volume 4, Special Issue 11, September 2015

National Conference on Emerging Trends in Computing, Communication & Control Engineering [NCET 2K15]

On 4th September, 2015

Organized by

Department of CSE, ECE & EEE, Magna College of Engineering, Chennai-600055, India.

STOP WORD ELIMINATOR

Stop word eliminate the ordinary English word from your document for additional processing.

WORD FREQUENCY CALCULATOR

This calculate the number of times a word appears in document and also calculates the word come out in text. After calculating frequency of word we scored that document on the basis of scoring algorithm. We give the rank to that document and summarized that document.

XI. EXPERIMENTAL RESULTS

This will helps victims from attack like physical violence, if victims feels unsecured and helpless at any time then by pressing any key of her mobile continuously the alert message is send to nearest police control room, family, ambulance, friends, which are in emergency list that alert message will contains the entire locations of that victims place, and images of that location which are taken by camera of her mobile. This will helps victims to avoid attack and it also helps police to reach that place as fast as possible for providing help to victims and save her from attack.

Following functions are available in system.

To generate the Alert Message, when victim press any key of her mobile when victim is in trouble. Automatically capturing real time image and recording audio, Sending SMS with location details and images to selected contacts when victim is in trouble, automatically converting profile of mobile phone to silent mode, auto-call receiving system, GPS tracker, detection of spy camera.

XII. CONCLUSION

In this, there are two modules. One for hidden camera detection system, which is used to detect the hidden camera which are placed in areas like hospitals, colleges, malls, hotel rooms etc. Another module for women attack Handler System. This system will help in Prevention of attacks on women and being victim of any sex scandal. This system will give assurance for women to live secured life. In this, we use text summarization algorithm for calculating word frequency.

ACKNOWLEDGEMENTS

We are very thankful to prof. N.R. Wankhede and all staff of late G.N.S. COE, Nashik.

REFERENCES

- [1] Munesh Chandra DIT, School of Engg., Vikrant Gupta R.K.G.I.T., Santhosh Kr. Paul, R.K.G.I.T. "A Statistical approach for Automatic Text Summarization by Extraction", International Conference on Communication Systems and Network Technologies, IEEE 2011
- [2] Samadhan R. Manore, Computer Science Department, Shivaji University. "Email Documents Summarization Using Statistical Approach". International Advance Computing Conference (LACC 2009), IEEE 2009
- [3] "Fight back" Android App Developed By Canvas M Technologies, 26 June 2013, <http://www.fightbackmobile.com/welcome>
- [4] "Guardly" Android App Developed By Guardlycorp., 28 January 2014, <http://www.guardly.com/>
- [5] "OnWatch" Android App Developed By On Watch, 10 November 2012, <http://play.google.com/store/apps/details?id=com.onwatch>
- [6] "Life360-Family Locator" Android App Developed By Life360, 20 February 2014, <https://www.life360.com/family-locator/>
- [7] "StreetSafe" Android App Developed By PeopleGuard LLC, 24 September 2013, <http://streetsafe.com/static-products-overview>