

Women Warrior: Secure, Smart & Safe Women's Application

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Abstract: Security for women in India has become a foremost concern as the number of crimes over women and girls growing day-by-day. India is the second most populous country in the world. According to the reports of NCRB-social-government organization-2015 50% women in India are facing a lot of physical harassment in public places such as railway-bus stands, crowded places (Shopping Mall, Temple, Colleges and many more.), foot paths etc. The proposed system is more secure, smart and safe application in all the context for women security y providing various features such as Profile Mechanism, Locking Mechanism, Map View Mechanism, Alert Condition & Secret Key Generation Mechanism, Contact List Mechanism, Maintain Local Database and Cloud Database Mechanism, Wi-fi / Phone Calling Mechanism, Messaging Mechanism, Alert/Incident Publish Mechanism, Emergency Button Mechanism and View on Map Mechanism.

Keywords: LBS, GPS, Geocoding, Reverse-Geocoding, SOS, Alarm, Social Login, IMEI/MEID Locking.

I. INTRODUCTION

In our Country, even though it has super power and an economic development, but still there are many crimes against women. The crime, misfortunes and violence in the women lives in the form of sexual assault, intimate relationships with physical assault, sexual abuse in childhood and sexual harassment are increasing day by day. Based on the study, it has been found that one in two women were testified rape, even one out of four women was victimized to be physically assaulted before reaching to 16 years of age and about half of the girls experience some type of sexual abuse [1]. Thus, by growing this type of crime rate every second the fear inside the women also increases. The fear of being followed or receiving an unwanted attention from an unknown person [2]. This lead to women hesitate to go out alone, not at late night, but even in the daytime, because they are afraid and thinking about the consequences of the danger of the unknown men near with unwanted attention.

In today's circumstance, it is unsafe for an individual to travel alone at night specifically for women; it will be high time to travel alone because a woman is not very much strong as men to defend herself from them. The good way to decrease probabilities in becoming a victim of ferocious crime (robbery, sexual assault, rape, domestic violence) is to recognize and call on resources to help out of unsafe situations. Whether in immediate trouble or got unglued from friends during night and do not be familiar way with to reach home, having these applications on phone can reduce our risk and bring assistance when we need it.

Smart phones offers many facilities at economical internet cost. Android is delivered with features like high resolution camera, Wi-Fi, GPS navigation, touch screen which supports the mobile phone users to keep in touch

with the modern world. Android is a software stack for mobile devices. It comprises an operating system, key applications and middleware. The Android SDK offers the tools and APIs use to cultivate applications on the Android platform using the Java programming language. It is a software platform, rather than just an Operating System, that has the potential to be utilized in a much extensive range of devices. Android delivers access to handy libraries and tools that used to build rich applications.

II. LITERATURE SURVEY

A. Hollaback

"Hollaback! You have the power to end street harassment." is the tag line of application which tackles the crime one culprit at a time. This application provides functionality of taking picture and uploading of their harasser "caught in the act" and submit their truth fact or incident to be chronicled and recorded on "ihollaback.org". This application not publishes the picture on website, but also notifies others of area where harassments occurs.

Hollaback's evidence is that "street harassment is a doorway crime that marks other forms of gender-based violence OK." They boost users to submit stories and pictures of street harassment at each level from catcalls from total unfamiliar person to groping hands on a packed bus and individuals exposing themselves on a subway.

Limitations or Boundaries of Hollaback:

- There is no instant call for help, henceforth no self-protection.
- In case of emergency the victim may not have time to take snap the harasser photo.

B. VithU

This is an emergency based application commenced by a popular Indian crime television series “Gumrah” aired on Channel [V]. In this application when the power button of the Smartphone is pressed twice successively, it will begin guiding out alert messages with a link to the location of the user every two minutes to the contacts saved into the application.

C. FIGHT BACK

This application is technologically advanced by Mahindra group. In prior days, this application was not free of charge, customer have to pay for this application. But afterward Delhi gang rape this application is on hand at no cost. This application sends a message to your friend or contacts that “user is in trouble” using different features of smartphone such as Email, GPS, SMS and GPRS. This application works on preferably supports Android Java Programming. Using this application, you can send SMS of your location using maps also.

D. GUARD

This application was developed fundamentally for women safety purpose. This application put a phone call by your name, instantaneous location, and emergency hit to your selected friends. In this application you have to provide your particulars in profile sheet e.g. date of birth, tallness, weight, eye-color, blood group, hair-color, etc. This app is also used in iPhone, iPad, BlackBerry, Windows Phone etc.

E. LIFE 360

Family Locator:-This is free application available on Play Store. In emergency this application inform to your friends and family. Using this application you can discovery relative members on personal map. This application helps you to recognize about your family, whether they are safe or in trouble. Life360 shows welfare places like hospital, police stations, etc. near to you as well as current crimes nearby and recorded sex offenders.

F. STREET SAFE

This application is developed on international Women’s day. It will call community to help you in any condition. This application has four features for crisis which would be ongoing by just clicking on the button.

Features

- It automatically apprise on your Facebook account with your current location.
- SMS will be sent to preferred associates with your vicinity.
- An alarm is initiated with high volume on your mobile.
- Call is to be initiate to your chosen emergency number.

G. Women’s Security

The application was developed by AppSoftIndia[4].

Features

- The user has to save some particulars. These particulars include: Email address and password of the user, Email address and mobile number of the addressee and a text message.
- Application is loaded as a “widget”, so that when the user touches the application, it alerts the addressee.
- It stores the voice of surroundings for about 45 seconds and this recorded voice, text message containing location co-ordinates of the user is sent to the addressee mobile number.

H. Bsafe- Personal Safety

The application is technologically advanced by Bipper Inc. On March 6, 2015 .The application slogan is “Never Walk Alone” [5]. This application helps the user to make a clique of 'Guardians' and SOS message will be acknowledged by them when the user is in trouble/danger. Also another noble feature of this application is one of the guardians will also be called. The SOS message also includes location of user via Global Positioning System (GPS). The user can also enable the GPS tracker and let the friends know location at any time.

I. Safetipin- Complete Safety

The is a privacy safety application having the GPS tracking, emergency, key contact numbers, direction towards the safe house, distinguish the safe and unsafe zone by pointing out by different pins [6]. It drives in advance of representative women safety application, and presents an immense range of features, so that they will help to virtually plan. The person can select the areas on those he or she eager to go and can get information about the menaces of disturbances about the area, so they can lastly take safety measures.

J. Police Nearby

The application is technologically advanced by Big Systems in 2013.The police nearby scanner android application is assembled with the aim to connect citizens & students to their nearby police stations city wise at one click and will authorize the community to become further involved right from your Android Smart phones [7]. Any local, state, or school, College police department as well as other law administration agencies can use Police scanner Android Application to provide you with enhanced service and get better communication. Police nearby application is free to download from play store and use without sign up.

K. SCREAM ALARM

Scream Alarm, an android application technologically advanced by Go Pal AppMaker in November 2013. By clicking this application, it produces a very loud volume scream in times of agony when the lungs of a person fail in high-pitched in trouble. The generated scream is in a woman’s voice is harshly helpful in disheartening the possible strong trouble makers. The only work done by this application is whenever the person pushes or touches

the application, the phone screams deafeningly with a woman’s voice [8].

L. TELLTAIL

This application is technologically advanced by DIMTS Ltd in 2014 for women safety objective. This application is a conception of DIMTS (Delhi Integrated Multi-Modal Transit System Ltd.) which permits the application to track the user through the GPS on their phone or the vehicle. The user can send instantaneous alerts to a preferred group of contacts as well. The application lets user’s position be known even if there is no GPS on user’s smart phone as locality can be monitored using the vehicle’s GPS. Telltail is an application which continuously runs in the mobile in contextual so that alarm will be triggered in an easy way and the user can be known simply upon the reception of the SMS [9].

M. CIRCLE OF 6

This application is technologically advanced by Test for Good on April 1, 2015. This application is envisioned only for iOS platform and this works only on iPhone. This application can be used by females of any age group like school students, employed women etc. when they are in trouble and this will alert their friends with menacing messages. By tapping on the application twice, one of the three programmed text messages is sent to six contacts of our choice; it also includes a call for help and also maps the exact locality of user and sends this address [10].

III. TAXONOMY CHART

Parameters	Call	SMS	Email	GPS	LBS	Geocoding	Reverse-Geocoding	Cloud DB	Local DB	Secret Key	Contact List	Social Login	Map	Wi-Fi Call/SMS	SOS	Panic Button Alarm	Click Photo	IMEI / MEID Lock	Capture Story
Hollaback	X	X	X	√	X	X	X	X	X	X	X	X	X	X	X	X	√	X	√
VithU	X	√	X	√	√	√	X	X	X	√	X	X	X	X	X	X	√	X	X
FIGHT BACK	X	√	√	√	√	√	X	X	X	X	X	X	√	X	X	X	X	X	X
GUARD	√	√	X	√	√	√	X	X	X	√	X	√	X	X	X	X	X	X	X
LIFE 360	X	√	X	√	√	√	X	X	X	√	X	√	X	X	X	√	X	X	X
STREET SAFE	√	√	X	√	√	√	X	X	X	√	√	√	X	X	√	√	X	X	X
Women’s Security	√	√	√	√	√	√	X	X	X	X	X	√	X	X	X	√	X	X	√
Beafe-Personal Safety	X	√	X	√	√	√	X	X	X	X	X	X	X	√	X	√	X	X	X
Safetipin-Complete Safety	X	X	X	√	√	√	√	X	X	√	X	√	X	X	X	X	X	X	X
Police Nearby	X	X	X	√	√	√	X	X	X	X	X	√	X	X	X	√	X	X	X
SCREAM ALARM	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	√	X	X	X
TELLTAIL	X	√	X	√	√	√	X	X	X	√	X	√	X	X	√	√	X	X	X
CIRCLE OF 6	√	√	X	√	√	√	√	X	X	X	X	√	X	X	X	X	X	X	X
Proposed System	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√

IV. PROPOSED SYSTEM

The proposed system having ability to perform numerous task or operation i.e as foreground or as background service which maintain the highest level of security for women. This system provides various mechanism such as Profile Mechanism, Locking Mechanism, Map View Mechanism, Alert Condition & Secret Key Generation Mechanism, Contact List Mechanism, Maintain Local Database and Cloud Database Mechanism, Wi-fi / Phone Calling Mechanism, Messaging Mechanism, Alert/Incident Publish Mechanism, Emergency Button Mechanism and View on Map Mechanism.

In the proposed system the user profile is maintained with different attributes such as Name, Age, Photo, Email-Id and Phone Number. This system provides facility to user to lock the phone on the basis of phone number and phone’s IMEI code. By this user can view their location on map via geocoding and reverse geocoding to see others friends location. User is able to share the location with secret key. This system enables Wi-Fi calling and chatting option for user. It also maintains both database Local and Cloud. It create screaming sound in physical harassment or violence and also send automated normal messages or SOS messages to the police, social media and family members which contains location and time.

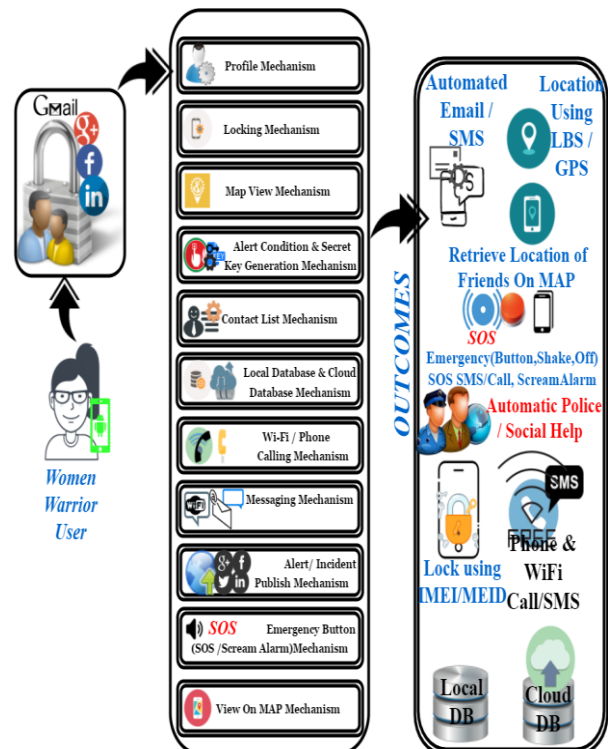


Fig. 1 Proposed System Architecture

V. CONCLUSION

This is the “Women Warrior: Secure, Smart & Safe Women’s Application” which is very useful application

mainly for girls and women safety. When we feel that we are in emergency situation, for example travelling alone in the Auto/Cab at night time, physical harassment in public places such as railway-bus stands, crowded places (Shopping Mall, Temple, Colleges and many more.), foot paths etc. We can use this application. So that on one click we can send our location to our family members and to nearby police stations. The proposed system is more secure, smart and safe application in all the context for women security providing various features such as automated email SMS, providing location using LBS (In absence of internet via local database)/GPS, Retrieve location of friends on map via reverse geocoding, Emergency options on click of panic button, by shaking of mobile and on uncertain power off results in terms of SOS and emergency call. More functionality will be provided such as automatic police and social help, lock using IMEI & MEID, WiFi call and SMS between apps and also maintaining local database and cloud database of user location.

REFERENCES

- [1] Randall, Melanie, and Lori Haskell. "Sexual Violence in Women's Lives Findings from the Women's Safety Project, a Community-Based Survey." *Violence against women* 1, no. 1(1995): 6-31.
- [2] Scott, Hannah. "Stranger danger: Explaining women's fear of crime." *Western Criminology Review* 4, no. 3 (2003): 203-214.
- [3] A.P.J. Abdul Kalam and Y.S. Rajan, "INDIA 2020-A Vision for the New Millennium", Penguin Books India Pvt Limited 11 Community Centre Panchsheel Park New Delhi 110 017 India, Published by Penguin Books 2002.
- [4] "WOMEN'S SECURITY", Android App developed by AppSoftIndia, December 17, 2013. <https://play.google.com/store/apps/details?id=com.zayaninfotech.security&hl=en>
- [5] "BSAFE-PERSONAL SAFETY APP", Android app developed by Bipper. Inc., March 6, 2015. <http://getbsafe.com/>
- [6] "SAFETIPIN-COMPLETE SAFETY APP", an Android app developed in January 21, 2015. <http://safetipin.com/>
- [7] "POLIE NEARBY", Android app developed by Big Systems in 2013. <https://play.google.com/store/apps/details?id=com.smoke.tech.PoliceNearby&hl=en>
- [8] "SCREAM ALARM", Android app developed by GoPalAppMaker in November, 2013 <https://play.google.com/store/apps/details?id=gopal.appmaker.android.com&hl=en>
- [9] "TELLTAIL", Android app developed by DIMTS LTD in 2014. <https://play.google.com/store/apps/details?id=com.dimts.ui&hl=en>
- [10] "CIRCLE OF 6", an IOS app developed in April 1,2015 www.circleof6.com