International Journal of Future Generation Communication and Networking
Vol. 13, No. 3, (2020), pp. 1718–1724

An Approach to Provide Protection for Women by Using Suraksha App

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Abstract

In our country, although it does have power and economic development, there are many crimes against women.Smartphone's use for entertainment has nowadays risen to a whole new level, but what we have often neglected is that our smartphone can be used for a reliable source of protection. Although many women's safety systems are already on the market, a more advanced system is still needed to ensure greater safety and security.We are now obliged to create an application to make effective use of smartphone. This paper introduces Suraksha, an android application for women's safety. A single click on the button inside the application turns the phone GPS on and sends the current coordinates to the registered mobile numbers along with an alert message. This unique feature of the application is sending out the message without any inconvenience. The automation of sending the message is to send the message directly, without even launching the application, through various sensors available in the phone such as continuous shaking and speech recognition.

Introduction

Over the past few years, we have come across cruel news of molestation and eve teasing towards women in the country where many religious importance is given to them. Women are not as physically strong as men which contributes to the success of molestation. Women's protection actually plays an important role; it has always been a problem for many citizens and committees around the globe

Women security awareness is essential, and the best way to minimise the chances of sexual assault is to search for help as soon as there is an apprehensive situation. Whether a person comes home late at night, or is in a situation where he/she ends up being sexual abused, this application will mitigate the situation if properly used. A 2013 World Health Organization reviewed study estimated that 35% of women around the world were victim of sexual abuse.

India's National Crime Records Bureau reported a woman is being assaulted every 3 minutes in the country. The perpetrator usually succeeds because of the lack of help at a remote location.The victim has no way to call the police in a dearth of time and even if the victim calls the police, what are the chances that the victim is able to tell the exact location of the current situation?Manual monitoring of the location where the eve teasing is taking place allows police to constantly patrol the area.

ISSN: 2233-7857 IJFGCN

If the victim doesn't get home on time, the family assumes that some unfortunate event has occurred, and that's the case with every parent. So,making a call in such situations and providingthe exact location are really important and that's not possible in front of goons. This, paper presents a system that is capable of providing more security and safety.

Proposed System

With the number of criminal acts against women rising at such a tremendous pace, it is clear t hat the professional community needs a strategy for mollifying the situation.

The key features of the proposed application are as follows:

1) When the app will be launched, you can register the contacts of the closed companions.
2) A button called send on the screen will turn the location of your phone on and send the alert message to the registered contacts along with their location URL.
3) The send button can also be invoked automatically by using built in sensor in our phone. The accelerometer is used to shake the phone and send the message and also speech recognition is used to send the message.

Related Work

Raksha [1], this application sends the current location to the registered phone numbers. At times of critical situation, a click on single key sends a loud buzzer to the close companions and also when the internet connection is off, it sends the text sms.

Safetipin [2], author developed an applicationwhich has current location tracker, emergency contacts and navigation to safe house. It distinguishes between the safe and unsafe zone. User can get prior information before going to any area and take safety measures.

Women's Security [3] application, records neighbouring voices for 45 seconds and then sends a text message that contains current coordinates of the victim and recorded voice to the registered contacts.

The iMace [4] is a mobile application that produces a high-pitched alarm upon shaking of the phone, and notifies friends and law enforcement of the location of the attack. It also sends a snapshot of the same using wireless networking techniques.

VithU [5] is a mobile application that sends a message to pre-selected contacts when the power button of the phone is pushed twice. The message contains the user's GPS location, and is sent out every two minutes with updates coordinates.

Kavita Sharma and Anand More el at., [6], provides an overview of the role of smart phone to prevent the groping. Their application will send the GPS along with the alert message to make people alert of the danger. The location of the phone needs to be turned on every time. If the victim is running short of time, they shall press the volume button instead of clicking the emergency button.

MageshKumar.S and Raj Kumar.M el at., [7], has developed the application called IPROB which intends to save women in need. The need to shake the phone for more than the normal

ISSN: 2233-7857 IJFGCN

threshold which activates the application. The application then detects the neighboring voices to check the IPROB sensors and send alert voice and if the user fails to respond then the predefined message is responded to the registered number. If the receiver approves a hear able alert, then it mechanically alerts and enables the speaker phone of the victim.

Methodology

This application comprises of following methodologies:

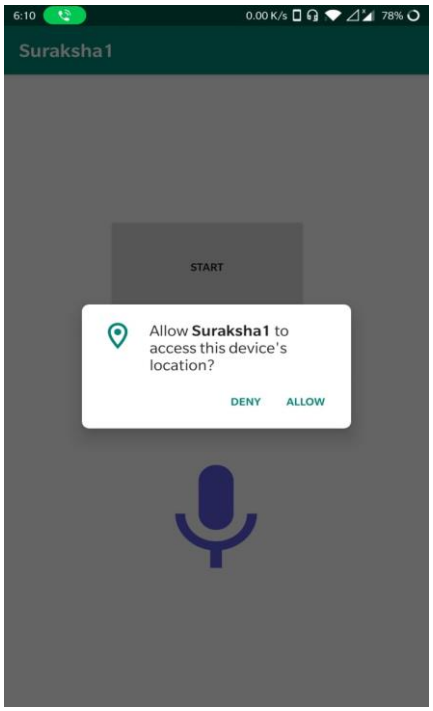
If User is in trouble-

1. Click on the Send button or continuously shake phone or Speech recognition
2. Controller receives the input and uses GSM to make message and GPS to find location
3. An encoded message, i.e. I am in danger with location will be shared with registered contacts
    a. Trusted contacts
    b. Friends
    c. Police
4. Track

Implementation

The application runs on Android OS v4.0+. These steps should be followed to implement Suraksha:

1) Grant permission



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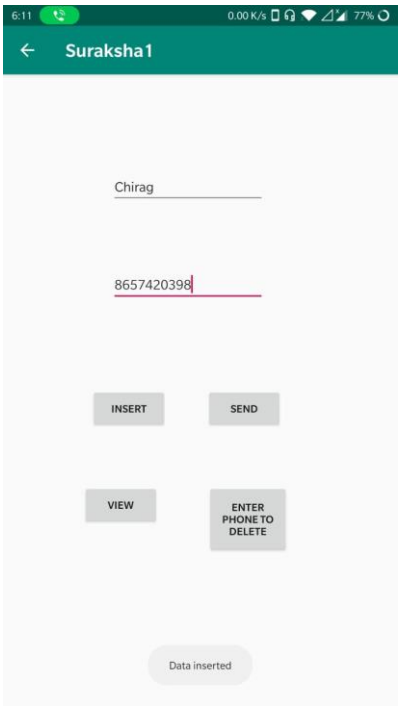
2) Enter name and number of people who must be registered as closed companions and click "insert"



3)One can also view the registered contacts

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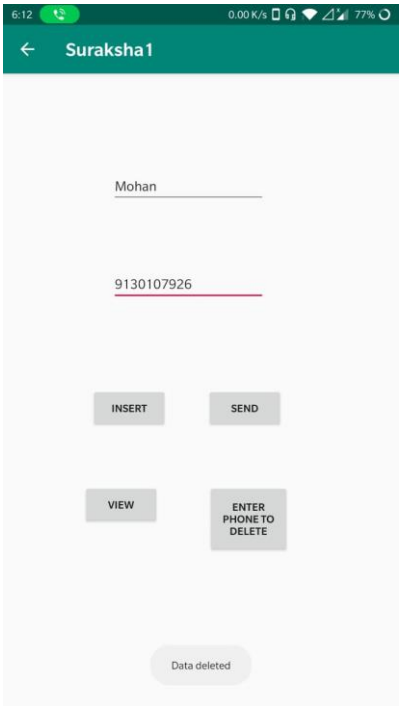
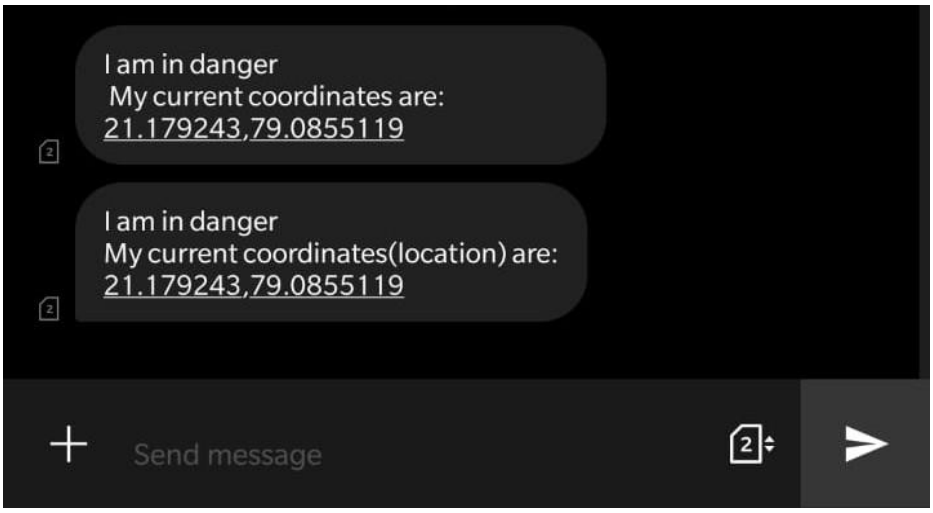
4) Enter number to delete the record of that person



5) Click on send and the following message will be delivered to all the registered contacts



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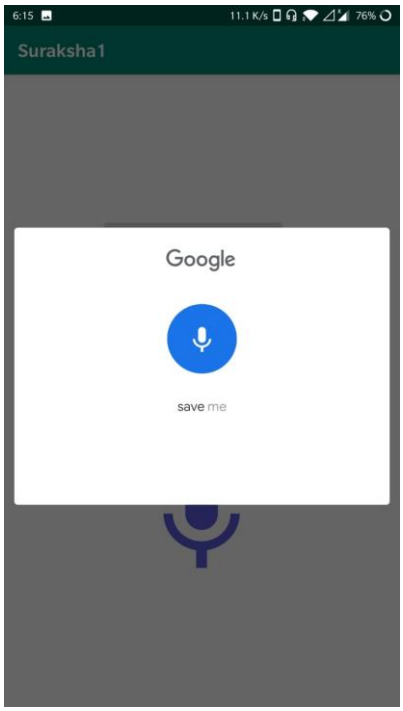
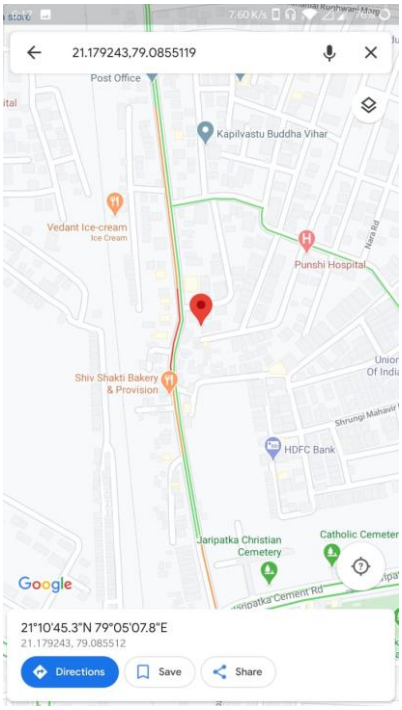
6) Shake the phone for 4 seconds or say “save me” and the message will be delivered



7) Copy and paste the coordinates in maps to get the location



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Conclusion

This application's basic idea is to ensure any woman that even at the point where the situation seems to go worse and worse and the help is unlikely to come just by screaming, this app can be proven very effective if used properly on time. This application canaware people and police of the sexual assault and thus it can be prevented in no time. Suraksha contains many provisions to call out for help, some of them being very easy to use and activate the application. We have kept the user interface very easy to use such that it can be used even is the user panics. This is a very useful application and is also in the best interest of the Government and Police.

References

1. BharatSewa.com, 14 March,2014, "raksha women safety alert" https://play.google.com/store/apps/details?id=app.raksha7h1=en.

2. "Safetipin complete safety app", an Android app development in January 21,2015. https://safetipin.com/

3. "Women's security", Android app developed by AppSoftIndia, December 17,2013. https://play.google.com/store/apps/details?id=com.zayaninfotech.security&h1=en.

4. Jou-Chih Chang; Pi-Shih Wang; Kang-Hsuan Fan; Shih-Rong Yang; De-Yuan Su; Min-ShiungLin; Min-Te Sun; Yu-Chee Tseng, "iMace: Protecting Females from Sexual and Violent Offenders in a Community via Smartphones," Parallel Processing Workshops (ICPPW), 2011 40th International Conference on , vol., no., pp.71,74, 13-16 Sept. 2011 doi: 10.1109/ICPPW.2011.57
5. VithU: V Gumrah Initiative on the Google Play Store: https://play.google.com/store/apps/details?id=com.startv.gumrah. (sharma, 1990)Accessed 2015-06-01.

6. Kavita Sharma M.tech Student and Anand More, Assistant professor from Devi AhilyaVishwavidyalaya, Indore, India.
7. "Android application for women security system"

8. Mageshkumar.s and Raj kumar.m,"iprob-emergency application for women ISSN 2250-3153 International Journal of Scientific and Research Publications, online at www.ijsrp.org Volume 4, issue 3, March 2014.
9. PoonamBhilare, AkshayMohite, DhanashriKamble, SwapnilMakode and RasikaKahane,Women Employee Security System using GPS And GSM Based Vehicle Tracking, International Journal for Research in Emerging Science and Technology,volume-2, issue-1, january-2015.

ISSN: 2233-7857 IJFGCN