

SHIELD: WOMEN PROTECTION APP (ANDROID APPLICATION)

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ABSTRACT

Many disastrous incidents are taking place in recent times regarding women. Problems may come from any direction such as women walking on the road after the work, going to supermarket or many other reasons for which they go alone. This paper presents the development of a new app-Shield: A women protector app, a personal safety application developed for smart phones of android platform. This application will be activated when the power button is pressed thrice or by voice activation. When the application gets activated it sends the GPS location of the user to the pre-defined contacts and the image of the person opposite to them to Whatsapp of the predefined contacts, this app also provides the nearby police stations and hospital addresses and also alerts the nearby people. For every problem technology has provided a solution and this app will be the solution for this problem.

I. INTRODUCTION

From the report of crimes against women from National Bureau of Crimes [1] we could infer that the crime against women is damn high in recent times. We have seen many incidents regarding this issue and are most devastating. 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're in instant trouble or get separated from friends during a night out and don't know how to get home, having this app on your phone can diminish your risk and bring assistance when you require it. Kofi Annan, the secretary general of united nations states that "there is some universal truth, which will be applicable to all countries; he says that "violence against women is intolerable and that thing must never be accepted"

[2]. He also says that "violence against women will be become a serious problem if it hasn't been controlled". Recently, A girl has been brutally murdered in the public at a railway station in Chennai and also in Kerala a girl was abducted and killed, which has been a serious issue in India.

RAPE OF CHILDREN		
Neighbours the biggest predators		
Relationship	Cases under POCSO Act Sec 4&6 (rape)	Percentage
Neighbour	3149	35.78
Employer/co-worker	2,227	25.30
Grandfather/father/brother etc.	138	1.56
Other close family member	210	2.38
Relatives other than close family	581	6.80
Other known person	2,036	23.13
Total number of rape cases	8,800	
	Only 251 cases under Child Labour Act	449 children rescued
MOST CASES OF ABUSE BY FAMILY AND RELATIVES		

HIGHEST PERCENTAGE OF CHILD RAPE AT WORKPLACE		
State	Number	% of all child rapes in state
Tamil Nadu	589	55
Gujarat	542	49
Madhya Pradesh	166	24
Karnataka	233	22
Uttar Pradesh	312	22
Only states with more than 500 cases of child rape considered		
WORST RATE AND CRIME NUMBERS UNDER POCSO		
State	Per 1 lakh child population	Cases
Madhya Pradesh	119	1,480
Chhattisgarh	116	1,164
Karnataka	75	1,500
Odisha	68	1,416
Assam	61	731
Maharashtra	56	1,687

Fig.1 Report of crimes against women from national Bureau of Crimes

This app-SHILD that we made will surely help to overcome the odds and will definitely make a huge impact.

II. EXISTING APPS

We have made a survey on existing apps [3] to find their working and to identify the flaws of the applications as to overcome the issues and to provide new features. To date it is identified that the following Android Apps of women security are good and are offering relatively similar service.

NIRBHAYA BE FEARLESS APP

This app provides the location of user to preselected contacts. For the apps to switch open the power

button is to be double clicked.

RAKSHA WOMEN SAFETY APP

This app also provides with the GPS location of user to the contacts and also has buzzer option and location of nearby friends

WOMEN SAFETY SHIELD

It has the safe features as nirbhaya with the additional feature of providing the nearby hospitals and police stations.

WOMEN'S SECURITY

The user has to save some details. These details include: Email address and password of the user, Email address and mobile number of the recipient and a text message. Then, app is loaded as a "widget", so that when the user touches the app, it alerts the recipient.

BSAFE- PERSONAL SAFETY APP

This app helps the user to create a gang of 'Guardians' and SOS message will be received by them when the user is in trouble. Also another good feature of this app is one of the guardians will also be called. The SOS message also includes location of user via GPS. The user can also enable the GPS tracker and let the friends know location at any time.

SAFETIPIN- COMPLETE SAFETY APP

This is a privy security app having the troop of features; GPS tracking, emergency, important contact numbers, directions to safe locations, pins displaying unsafe and free from danger areas and a Safety score.

POLICE NEARBY

This android app is built with the aim to connect citizens & students to their nearest police stations city wise at one click and will permit the community to become more involved right from your Android Smart phones. Any local, state, or school, College police department as well as other law enforcement agencies can use Police scanner Android App to provide you with enhanced service and get better communication.

III. KEY FEATURES OF SHIELD

- Provides the location of user to preselected contacts power double click of power button is used to activate the app.
- Voice recognition is also used to activate the app.
- Takes the picture of the person opposite to you

by using back camera and send to the pre-saved contacts -Whatsapp

- Provides the hospitals and police stations near you using GPS.
- NO registration is required.
- Protects the piracy of the user as the app only gets activated by the user's request

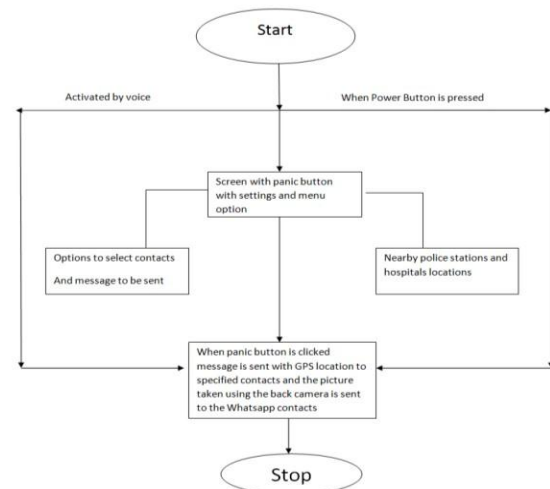


Fig 2.Flowchart of the app

FLOWCHART

The flow of the application is depicted in Fig.2, when the power button is pressed thrice or when "Help" is shouted The app gets activated and the location of user is sent to the specified contacts and the image taken from back camera is sent to the Whatsapp of the contacts.

IV.WORKING

The primary goal of our application is to provide safety to the user without affecting their privacy, so we have developed the app in such a way that the developer does not get any details of the user. Firstly the user needs to select three contacts from the users saved contact list and type the message they want to send to the contacts and now the app is ready to use.

The contacts the users selected and the message they have typed is saved in the local database in the users device thus the developer does not get any information about the user.

The opening screen of the app has the Panic, Settings, More and Buzzer buttons. The Settings button is used to open a screen where the options are given to select the contacts and to type the message to be sent .Pressing the Panic activates the app to send SMS to the contacts selected in the Setting screen with the

GPS location and the image of the person opposite to user. Pressing the Menu button opens a screen with the buttons to show the nearby police-stations and another button clicking on which shows the nearby hospitals and this is made using database. The last button in the main screen is the buzzer button by clicking on which gives alarm sound that alerts the people around the user thus alerting the people around the user if necessary.

V. USER INTERFACES

The user interfaces of the application are given, the main screen setting screen and the menu screen are provided below:

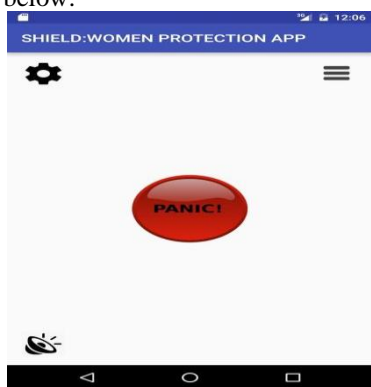


Fig 3.Main Screen

As mentioned the main screen [3] provides with the three buttons the Panic, Setting, More and Buzzer buttons clicking on the setting button on the top right corner of this screen opens the below screen Fig.4.

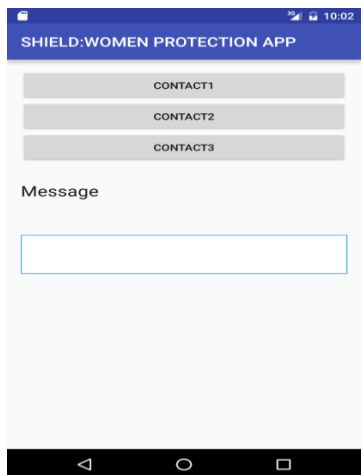


Fig.4. Settings screen

Clicking on any of the contact button in the screen opens the phone book of the user and allows the user to select a contact from the list as the contact

to which the user wishes to send the SMS and image when in danger and the message box allows the user to type the message that must be sent in the SMS. Clicking on the more button in the main screen opens the More screen Fig5 window with police, hospitals buttons

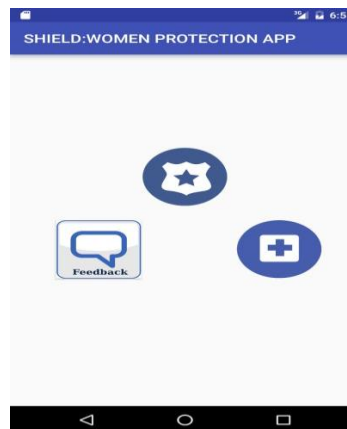


Fig.5. More screen

VII. CONCLUSION

This android app will be useful for anyone in danger it may be women or even elder people and even anyone with a huge sum of money, when a person is in danger, They can simply press the power button thrice or shout help, so that the app alerts their contacts. This application is also helpful in locating the person, who are in danger and also it provides the location to the nearest police station. This application will track the user device using GPS, which will help others to identify the user. This app can be later used by the police department if necessary. Thus, this app can help in a huge way to protect from danger or unsafe conditions.

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