

NiDar – A Women Safety Application

Kirti Rai¹, Janvi Gupta¹, Ajay Kumar Srivastava²

¹IT, AKTU/SRMCEM/B. Tech Student, Lucknow, Uttar Pradesh, India

²IT, AKTU/SRMCEM/Professor, Lucknow, Uttar Pradesh, India

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ABSTRACT

Progress and safety both are necessary to empower women in every sector. From working for an organization till purchasing any essential item, women need to travel alone many times. We cannot deny the fact that everyday newspaper is overloaded with cases of harassment, rape, sexual assault and so on. Now-a-days smartphone is used by almost everyone. So, an android based application can be utilized effectively to provide safety and security to our daughter, wife, mother and, sister. It must guide the women about the current location and during emergency provide necessary help to her.

Keywords: Women, Android, Application, Phone, Location.

I. INTRODUCTION

Safety is the primary concern for our daughters, wife, and sisters. With the development in society, women are empowering and contributing in the different fields of science and technology. For the soul purpose of working in multiple sectors, they need to travel every now and then. In such a scenario their safety is the prime concern.” The amount of violence against women has increased by many folds due to the greater exposure of women in every field of life. Women were previously restricted to the four walls of the houses and after globalization they have got the chances and opportunities to stand equally in all sectors at par with male. Women are exploring themselves in the various arena in this world and yet are facing many challenges and threats in their fields. Women security has become a major concern in the recent times as woman is not highly strong as men to

protect herself from them. Many a times women are not able to activate application for help in such a situation. Therefore, this application will be giving the right to the emergency contact to access the camera of user while she is travelling alone (only if she gives permission). Women Safety Application called as “NiDar,” is a Hindi word which means fearless is intended to improve the situation. With this app user can contact their loved ones in case of emergency. User can also track its current location using GPS and can also find the safe path to travel for their destination. There is an option of playing siren so that a fake attempt can be made to draw attention. This app can take image from front camera and back camera and send it to the emergency contact lists previously stored by user along with the current location of the victim. At times there is no emergency but to be cautious we want to know the safest route for our destination. In such a situation this app can

access your current location and your destination and calculate the safe route for you. Gender-based violence has become a national and global issue because of decades of civil society activism, assisted by women's organization. Even though each country has an extraordinary number of laws against domestic violence, sexual assault, and other forms of violence to protect its female citizens from such abuse, enforcing these laws is extremely difficult. But with our app using the latest technology, it will become easier and more convenient to safeguard our women with this type of situation. Women who are victims of abuse are often denied basic human rights. The basic problem towards the women protection is with the police handling of these occurrences is that they are not always able to respond swiftly to distress calls. These limitations include not knowing the location of the crime and not knowing the crime is occurring at all: it is difficult for the victim to call the police confidently and quietly. To aid in the removal of these prohibitions. This app presents the Women's Safety Application, a smartphone app that provides a reliable way for women to let the closed ones know about them in an emergency or take some help in the unwanted situation. Secondly this, app is supportable of Hindi language along with English language that can be equally useful for those who understand little or no English at all.

II. RELATED WORK

As a part of literature survey, we investigated some applications of women safety that already exist in market. The aim is to observe how these applications work and to see how they can be improved and how are they different. To date it is identified that the following Android Apps of women security are good and are offering relatively similar service.

[1] A Mobile Application for Women's Safety: WoSApp

Women's Safety App provides a secure way to get help from police. The user can easily and easily trigger function by shaking her phone, or by a simply clicking on a PANIC button on the screen. WoSApp has a direct tie-up with the local police, which can be extended as the area of use of the application expands.

[2] WOMENS SECURITY, Android App developed by AppSoftIndia, December 17, 2013

This app is developed by App Soft India. The app's main options are: Users should avoid wasting details. This information includes user email addresses and words, recipient email addresses and mobile versions, and text messages. The app is then loaded as a gizmo so that the recipient is notified as soon as the user touches the app. Another important feature of this app is that it records the surrounding voice for about 45 seconds and this recorded voice, a text message with the user's location coordinates is delivered to the recipient's mobile his variant.

[3] Abhaya: An Android App for the safety of women"

Abhaya, is an Android app for women's safety. This app activates when you need it with just one click. Send the location of the place via GPS with just one click on the app, send a message to the number registered with the location in URL format, or call the originally registered number in a dangerous situation. I can. A unique feature of this app is that it will continue to send SMS to the registered mobile number every 5 minutes until the stop button is clicked on the app. Continuous location information helps locate victims and help them to rescue them safely.

With the advancement in technology and digital services, almost everyone has a smart phone. Therefore, an efficient android based application can be used to provide security to the person travelling alone or in case of emergency.

III. PROPOSED WORK

The proposed method is that if women is in trouble and want help then this app has multiple supporting features like it can send an emergency message to the saved contacts in app at the time of registration which contains a note asking for help and current location along with URL of google map current location. Many times, we visit to the malls, hotel rooms and use public washrooms. The cases of spy camera in such places are there in newspapers every now and then. In such a situation to maintain our privacy, we should have a system that can scan the place for us and tell us if there is any hidden camera. NiDar app can detect it. Moreover, It can play fake siren to rectify the situation. It can suggest you the safest route from your current location to destination based on crime statistics. App can be activated based on voice command or even by pressing power button for 4 times continuously. Additionally, App provide a smart monitoring system to check if women is safe or not by their loved ones. With the help of this app, whenever woman is going to travel outside, she can enable the permission and during that time their loved ones gets camera access of her phone to see if everything is safe whenever they want. This application supports multiple language so that if any user know language other than English then also, they can user it easily. According to some studies, the report suggest that many crime or accidents occurs due to lack of knowledge and awareness. Hence, keeping this in mind also provides a platform where all women related news can be read at one place. It filters all current news and provide only news related to women from various fields like achievements, laws, crime, etc.

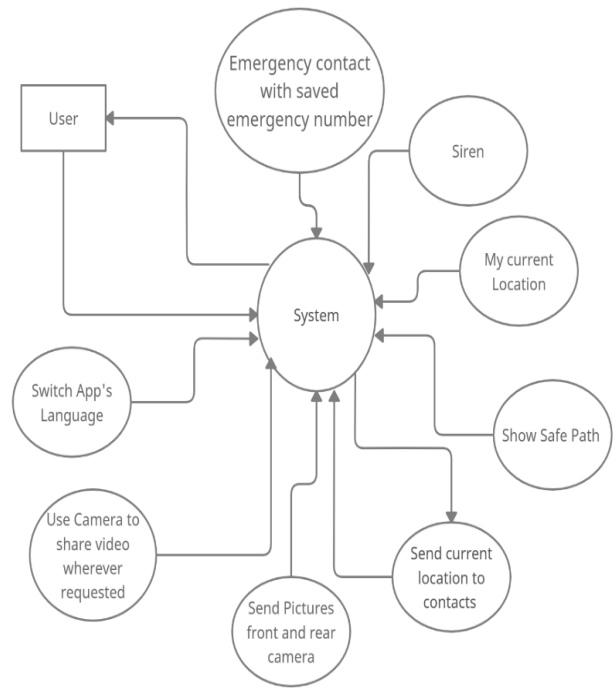


Fig.1. Data Flow Diagram

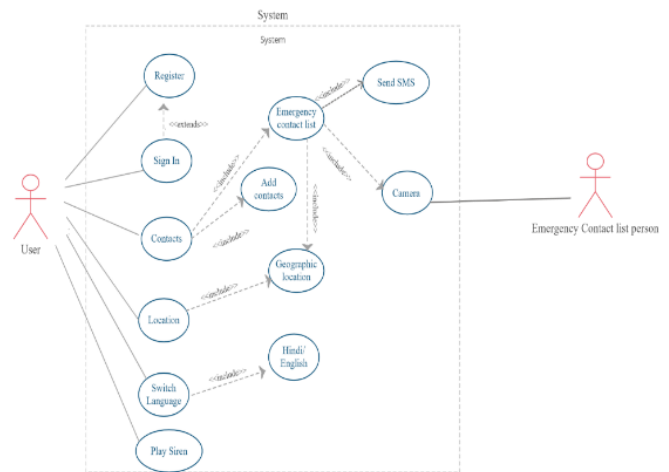


Fig.2. Use Case Diagram

Description of modules are mentioned below:

• Login/ Register

This module required user to create an account on this application with proper authentication so that each user can be distinctly identified. It contains all the information about the authenticated person. It contains the process of verifying the identity of person by obtaining some sort of credentials and

using those credentials always proceeds to authorization process.

- **Current Location**

Location module help in telling the current location of user so that it can identify the place.

- **Safe path**

In this module we use the GPS system to track the route and based on their safety score it suggests the further route until the user reaches its destination.

- **Play siren**

Play siren module is used to play the audio of police's siren so that it can rectify the situation and may reduce the chances of crime.

- **Hidden Camera Detection**

This module helps in detecting the hidden or spy camera present in public washrooms, changing rooms, hotel rooms, etc.

- **Emergency Contacts**

This module consists of list of contact details of user's loved ones which is manually saved by user during registration process. You can add or change the list of contacts and their information like Name, Id, phone number, address. This information is stored in database.

- **Women's News**

In this module the application provides a platform to read the current news around the world related to women and make the user aware about what is happening around us.

- **Change Language**

This module can switch the language of application which is by default in English language to multiple other languages as well.

IV. IMPLEMENTATION

This android application is useful whenever the user of this application is in trouble or some kind of emergency can use it. This application provides storing the phone number of 4 persons whom you want to contact in case of emergency. With the help of this app user can send the emergency message and

current location details to these numbers in a single click. The message sent also contains the link of Google Maps for accuracy of location. The total evaluation can be done in three major steps which are described individually. Evaluation describes the whole implementation of the application in five major functions.

The First major function is registration of user on this application. The application demands details like email address of user and emergency contact numbers of 4 people whom user want to send emergency contact messages in case of emergency.

The Second function is to detect the presence of camera in the sensitive places like changing rooms, washrooms etc.

The third function is to increase awareness among the women and the users. For this purpose, this application provides a platform where user can read all the latest news happening around related to women.

The Fourth function is to suggest the safest route to the user from its current location till destination based on the traffic reports which is the prime aim of proposed system.

The fifth function is Fake Siren facility is also present in this app to rectify the situation in case of emergency.

V. RESULTS

The testing results of the mentioned functions are provided with the screenshots taken in various interval of time from the user's device to the contact's device. For installing the application first, you must allow all permissions like location, call, storage etc.

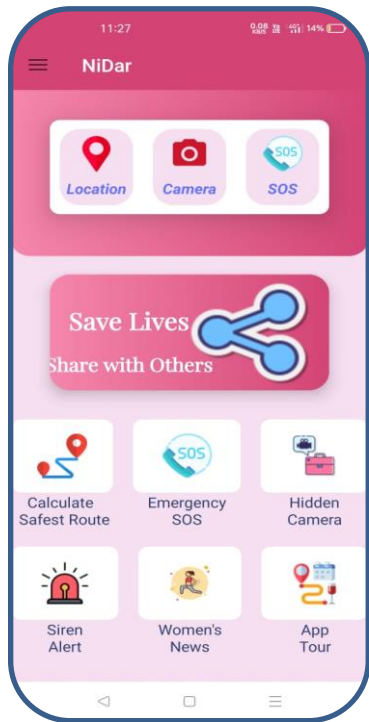


Fig.3. Home Screen of NiDar App

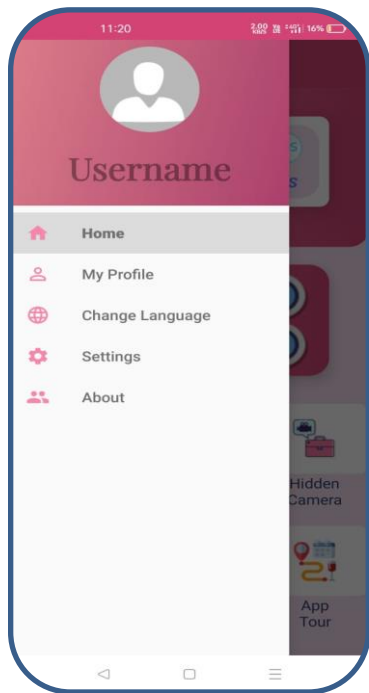


Fig.4. Navigation bar

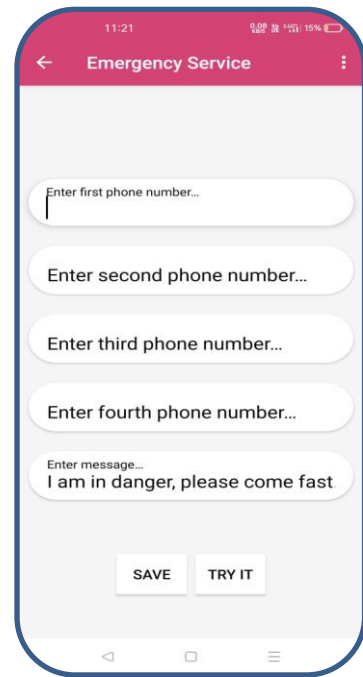


Fig.5. Emergency Contact Numbers are saved here

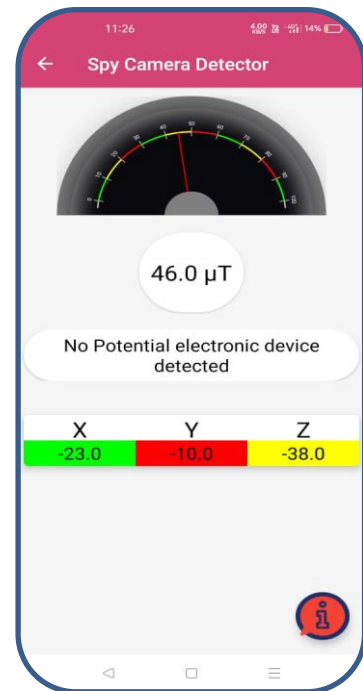


Fig.6. Hidden Camera Detection



Fig.7. News platform

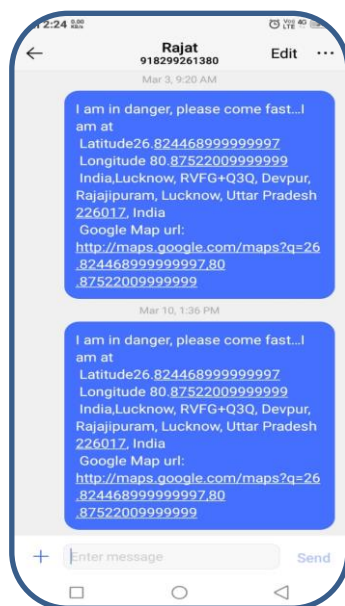


Fig.8. This is a message sent to the emergency contact number

VI. CONCLUSION AND FUTURE WORK

This research work plays an important role towards providing the fastest way of safety for women. The proposed methodology will help women in providing

a supervision of their loved ones while she is alone on road or somewhere where she needs someone's company. An innovative idea to prevent the occurrence of rape, harassment, and other dangerous situations. The system helps maintain gender equality by providing a safe environment for women in society and allowing women to work late into the night. Anyone who commits her crimes against women will be warned and help reduce her crimes against women rate. Also, some further upgrade can be done when the mobile network is not available for the user's device and if the user's device is switched off.

VII. REFERENCES

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