

Voice Recognition Powered Women's Safety App

S. Dhivya^{1*}, R. Ramnath², C. Redhanya³, S. Sasi⁴, S.L. Sathiya Priya⁵

^{1,2,3,4,5}Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology, Autonomous Institution, Coimbatore, India

*Corresponding Author: dhivyasivanandan@gmail.com, Tel.: +91 9629757734

DOI: <https://doi.org/10.26438/ijcse/v10i2.1721> | Available online at: www.ijcseonline.org

Received: 04/Feb/2022, Accepted: 08/Feb/2022, Published: 28/Feb/2022

Abstract— Our idea is to design an application that will make each and every place, hour safer for women and children again. For their security and safety purpose, our government has provided security through rules and regulations in the society and there are many smart security systems existed. In this project we are designing a mobile application that can be used by women for help in emergencies as it contains an emergency alert button when it is pressed then it will automatically connect a call to the emergency contacts it also sends the live location of the user through normal message. This application also contains a voice alert through which the user can raise a voice and spell “help” 1 time so that automatically the message and the location will be shared to the emergency contacts which was registered.

Keywords— Women safety app; voice-powered safety application; mobile apps; women security; safety gadgets.

I. INTRODUCTION

The safety of Women in India has become a major issue. The crime rates against women have raised to a great extent. Women reconsider getting out of their home, particularly at the night time. This is, sadly, the pitiful truth of our country that lives in steady dread. Women in India have been given equivalent freedoms as men; however, people do not follow this rule. Women contribute to the growth and development of our country; still, they are living in fear. Women are now in regarded positions in the nation, but if we take a look behind the curtains, we see even they are being taken advantage of. Every day we read with regards to horrendous violations being submitted against women in our nation like it's a standard [1]. Although the list of crimes is very long, we can take measures to ensure women's safety in our country. Firstly, the government must make stringent laws that ensure the punishment of criminals immediately. Fast track courts must be set so the victim gets justice instantly. This will be a great example for different men to not carry out violations against women. In short, crimes against women are stopping the growth of our country. We should not fault women and request that they be extra cautious. All things being equal, we should request that men change their reasoning and work to make the world a more secure spot for women. Developed application will help to take quick action against the culprit hence reducing the crime against women.

We are focusing on building an effective, fast, and reliant application to make the women of our nation to feel safe and secured. Our application will act as an every minute of every day dynamic assistance and ally for women so they never feel that they are distant from everyone else in an emergency. By clicking the button an emergency message will be sent to the close contacts [2,3,4]. Through this

application, we can easily rectify and safeguard the women from being affected.

II. SCOPE OF THE PROJECT

As an independent nation, we must ensure respect and security of women and we cannot deny them this basic right. It is now time to initiate action to eradicate the menace of security issues with women. Violence against women remains embedded in our societies, both as a daily reality and difficult situations. Gender justice is impossible in a world where at least one in three women faces violence in her lifetime, regardless of her culture, religion, socioeconomic class, or education level. Our country can be a true democracy only when all women have the security and freedom from violence.

III. RELATED WORK

According to the reports of WHO, NCRB-social-government association 35% Women all around the world are confronting a great deal of unethical behaviours in public places, for example, railroad transport stands, pathways, and so forth. In this paper, the creators have assessed different existing frameworks for women's security. The authors have felt a requirement for a high level women's security framework to give wellbeing measures out in the open spots just as traveling alone through open vehicle (school transports, organization vehicles, and so on). This paper proposed a new model for women's security in public places which aims to provide a 100% safe environment [1].

This paper depicts a security electronic framework for women, worked out in the open vehicle vehicles like

vehicles, transports, and auto-carts as these days women are being attacked, hijacked, and annoyed by the drivers. Henceforth executed electronic framework is fitted in the vehicle which has a presentation, keypad, GPS, GSM, and implanted board to control and interconnect all of the abovementioned. As the excursion is begun traveler can enter her gatekeeper, companion, or relative portable no, he/she will get every one of the warnings of the female traveler venture. Most importantly the driver's name, portable number, vehicle enrollment number, and the security pin produced by a traveler are sent by SMS to the concerned individual of traveler. We can likewise add the objective locale regardless of whether the concerned individual check the updates, then, at that point, additionally it would be helpful in the examination assuming any issue happens. Traveler may consistently not get down at objective chosen, she might get down minimal early or minimal further contingent upon different elements, thus a choice to end venture is likewise given called as the finish of an excursion which is executed and approved utilizing secure pin, which driver won't know about. This framework utilizes sequential EEPROM to store different areas of urban communities and consequently new areas can be added along these lines the task will work in any city since areas are not hardcoded in the code however it is outer to the code [2].

Women's security is a major issue of concern in today's world. Women are subjected to unethical physical harassment. Women safety methods such as various mobile apps have been tried and implemented, but the need of the time is that they need is a device that can be carried everywhere easily. Here we present Touch Me Not, an thought to plan one such gadget which can be connected to clothing.. This button will be connected to the system which has two modules, one which can be used when someone makes some sort of unethical movement and the other one which can be used when you sense danger. The first module can be used just to record that is making a short video to capture the assailant, while the second one can be used during times of danger to send your location to family or friends as well as alerts the nearest police station, such that help can reach as soon as possible. The tools that we will be using include microcontrollers, GSM and GPS modules for the hardware section, python for the software section [3].

These days women provocation is expanding and ladies and kids' security is a central issue mark. To defeat this issue, this paper investigates the IOT ideas, for example, estimating the internal heat levels, heart beat rates/beat rates by sensors to screen their conditions and cautions close by area police headquarters or family members. Since, there are a few web or versatile applications for women wellbeing and crises, it doesn't work at all circumstances. The woman can't remain on the device at constantly. All things being equal, she could be observed by wearing savvy watches, and so forth It very well may be gotten to by remote advancements like GPS, GSM, GPRS, and Wi-Fi and checked by adjacent gadget [4].

IV. EXISTING SYSTEM

- Most of the existing systems for women security based mobile applications are concentrated on post execution implementation like after the person was affected by the unknown person.
- In the existing system the affected person was informed to their trusted persons who they are listed in their mobile contact list.
- Here no intimation sent to the persons who they are all in contact list before the harassment was happened.

V. PROPOSED SYSTEM

- In the proposed women security system the user can install our application and register with their information and they provide their current location and set the emergency contact numbers.
- When the user feels insecure somewhere they can use the alert and the voice for intimidating the emergency contacts with the help of application
- Furthermore, we can automatically connect the emergency contacts through call and also by automatically sharing the current location of the user
- In the proposed system current location of the user directly send to the emergency contacts and when the user press the emergency button in our application.
- At the same time we can immediate alert and location notification will be sent to the emergency contacts. So that they can easily identify the accused identity and location.
- Through our application we can make women more secured while they are travelled somewhere.

VI. METHODOLOGY

Software is partitioned into independently named and addressable parts called modules that are incorporated to fulfill issue prerequisites. Modularity is the single property of software that permits a program to be mentally sensible.

- **User login Module**
- **Information Module**
- **User Module**

User Login Module

Login module is the interface that is designed for the main user and the contacts mentioned by the user. User first registers by using the phone number. After registration process user enters the contact information about her parents, siblings and friends. When the user is in a trouble the current location and the crime details are sent to these contacts.

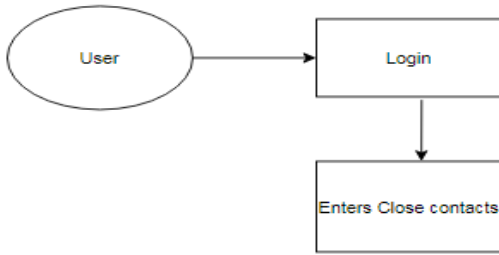


Figure 1. User Login Module diagram

Information Module

This module is the core module of the application. This has a button called “Emergency contact”. When the user is in some trouble, she can inform to her close contacts by pressing the “emergency button”. During this period a message and the current location of the user is sent to her close contacts.

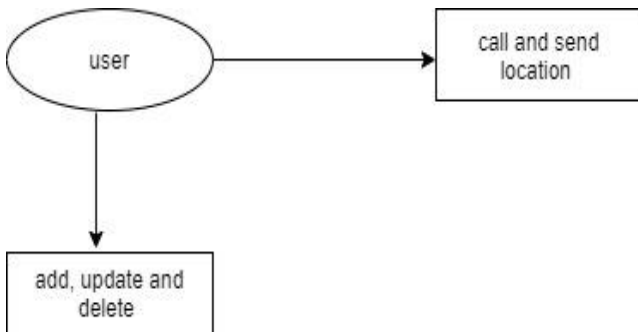


Figure 2. Information Module diagram

User Module

In this module, the user stores the information of the emergency contacts. The user can access the alert and voice for specifying the contact person that there is an emergency. If there is an emergency, then the automatic call and current location will be shared through SMS.

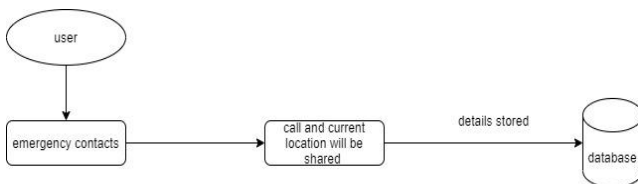


Figure 3. User Module diagram

VII. ARCHITECTURE DIAGRAM

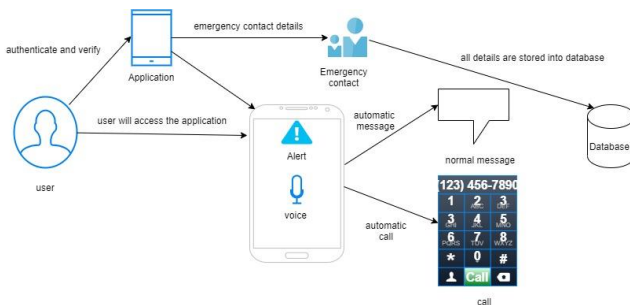


Figure 4. Architecture Diagram

VIII. RESULTS



Figure 5. Welcome Page screenshot



Figure 6. Login Page screenshot



Figure 7. Registration Page screenshot

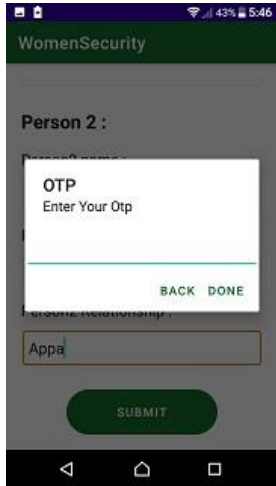


Figure 8. OTP entering page screenshot



Figure 10. Emergency Contacts Page screenshot



Figure 9.1. Alarm Button Page screenshot



Figure 11. Emergency Contacts Update Page screenshot

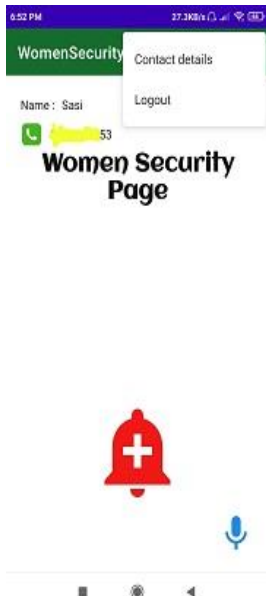


Figure 9.2. Alarm Button Page screenshot



Figure 12. Voice Recognition screenshot



Figure 13. Logout Page screenshot

This mobile application is utilized by person for help in emergency circumstances as it contains an emergency alarm button when it is pressed then it will automatically connect a call to the emergency contacts, it also sends the live location of the user through normal message. This application additionally contains voice alert through which the user can raise a voice and spell "help" for 1 time with the goal that automatically sends the message and the area will be shared to the primary emergency contact number. This likewise contains an extra data that the user can store the emergency contact information like their name, relationship and their contact number and is one more significant component utilized in this application is a chat application which is utilized to work on the current technological process.

IX. CONCLUSION

Women security application helps the women to immediately intimate about any harassment against them to the contact person and to their close contacts. Proper intimation helps to take necessary action. All the processes using this application simplify the entire case registration process. With the help of this application immediate SMS and the location will shared to the contact persons through the application.

REFERENCES

- [1] Abhijit Paradkar, Deepak Sharma Associate Professor, "All in one Intelligent Safety System for Women Security", International Journal of Computer Applications, Vol. 130 – No.11, pp.33-40, 2015.
- [2] S Shambhavi , M Nagaraja, "Smart Electronic System for Women Safety", International Journal Of Innovative Research In Electrical, Electronics, Instrumentation And Control Engineering, Vol. 4, Issue 3, pp.27-28, 2016.
- [3] Jismi Thomas, Maneesha K J, Nambissan Shruthi Vijayan, Prof. Divya R, "TOUCH ME NOT-A Women Safety Device", International Research Journal of Engineering and Technology (IRJET), Vol. 05 Issue: 03, pp.1055-1059, 2018.
- [4] B.Umadevi, Dr.P.Eswaran, Dr.N.Manoharan, "Womens Security Solution Using: Iot", International Journal of Pure and Applied Mathematics, Vol. 119 No. 10, pp.1871-1874, 2018.
- [5] Sunil Punjabi, Suvarna Chaure, Ujwala Ravale, Deepti Reddy, "Smart Intelligent System for Women and Child Security", IEEE 9th Annual Information Technology, Electronics and Mobile Communication Conference, Vancouver, pp.451-454, 2018.
- [6] S. A. Bankar, Kedar Basatwar, Priti Divekar, Parbani Sinha, Harsh Gupta, "Foot Device for Women Security", 2nd International Conference on Intelligent Computing and Control System, pp.345-347, 2018.
- [7] Madhura Mahajan, K.Reddy, M.Rajput, "Design and implementation of a rescue system for safety of women", International Conference on Wireless Communications, Signal Processing and Networking ,Chennai, India, pp.1955-1959, 2016.
- [8] G.C. Harikiran, K.Menasinkai, S.Shirol, "Smart Security solution for women based on Internet of Things(IOT)", International Conference on Electrical, Electronics and Optimization Techniques, Chennai, India, pp.3551-3554, 2016.
- [9] Sharifa Rania Mahmud, Jannatul Maowa & Ferry Wahyu Wibowo, "Women Empowerment: One Stop Solution for Women," International Conferences on Information Technology, Information System and Electrical Engineering, pp.485-488, 2017.
- [10] A.Helen, M. Fathima Fathila, R.Rijwana, Kalaiselvi V.K.G, "A Smart Watch for Women Security based on IoT Concept", 2nd International Conference on Computing and Communications Technologies(ICCCT), Chennai, India, pp.23-24, 2017.

AUTHORS PROFILE

S. Dhivya pursued Master of Engineering and currently working as Assistant Professor in Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology.

R. Ramnath pursuing Bachelor of Engineering in Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology.

C. Redhanya pursuing Bachelor of Engineering in Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology.

S. Sasi pursuing Bachelor of Engineering in Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology.

S. L. Sathiya Priya pursuing Bachelor of Engineering in Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology.