



# Design And Implementation of Intelligent Guard Device for Women Safety

1.Mahvash Iram Khan,2.Prachi B. Thote,3.Shubhangi G.Wankhede,  
4.Ruchira P.Shrikhande,5.Kavita R. Jagtap

1 Assistant Professor, Department of Computer Science and engineering,  
Nagpur Institute of Technology ,Nagpur , Maharashtra ,India.

2,3,4,5UG Students ,Department of Computer Science and engineering,  
Nagpur Institute of Technology Nagpur , Maharashtra ,India

## Abstract

As we know the present era is with equal rights, where in both men and women are taking equal responsibility in their respective works. Women also work in nightshift. But when it comes to women security, the rate of women harassment cases are increasing day by day. The streets,public,transport,public spaces in particular have become the territory of hunters. Because of this reason women can't step out of their house. In critical situations the women will not feel insecure or helpless if they have some kind of safety device with them. The main purpose of our project is to provide hardware device to women which can send location quickly and accurately to the nearest police station. We propose to have a device consist of hardware components and that has access to the internet. User can send their location to nearer police station via intelligent guard device by giving voice command through mic. Police station will check the help (means locations sent by hardware device or android app) requests by logging into the admin panel. User can use android app where it will press power button three times for sending location to the admin panel.

## Introduction

In today's world, women come across many situations that make them feel insecure and unsafe. With the onset of IT&BT industry, women work in night shifts. Now a days security of the women is not fully ensured. We propose to have a device which is the integration of multiple components. Smart device which can communicate with server that has access to the internet. This system can be used at places like bus stops, railway stations, offices, footpaths, shopping malls, markets, etc.

This paper involve implementation of the hardware device that provide quicker help to women in danger. This system consists of three main module , first is admin panel, in this module police station can create one account and check the recent help request. Second module is Android app . Here user can press power button three times and software will send the current location of that mobile phone to Admin panel. Third module is intelligent guard device, if we give help command then it will send it's current location to admin

panel . In critical situations the women will not feel insecure or helpless if they have some kind of safety device with them.

## Literature Survey

The literature consists of a lot many research contributions, but, here, we have analyzed some of the research and review papers. The existing approaches are categorized based on the basic concepts involved in the mechanisms. Finally, the findings are summarized related to the scanned and analyzed research papers.

Sr. No	Title of the paper	Author	Methodology	Limitations
1.	Smart Gadget for women Safety	Mr. Mohammad Zikriya Mr. Parmeshwar M G Mr. Shanmukhvyya R Math Ms. Shraddha Tankasali	The smart device is equipped with the motion software , which make the device to get triggered if there is any suspected activity in front of the camera and GPS location of the victim and the captured image of the culprit are sent through the E-mail from the device. Also makes the Emergency alert call to the victim's family/police station indicating the women is in danger.	Only saved mobile numbers will get notification.
2.	Cyber security and women safety app	Komal Bankar, Mayuri kakkad, Snehal Pawar, Aishwarya Shelar	Only we need to press panic button and location will be send.	System totally dependent on mobile phone.
3.	IOT based child and women safety	Mehajabeen Budebhai	Proposed solution contain various sensors which measures	If sensor take more time for sensing then response may be

			<p>various parameter on a regular basis(eg . temperature).If parameter is different than normal value then location will be send.</p>	<p>delayed.</p>
<p>4.</p>	<p>Women safety system using Raspberry Pi</p>	<p>Priyanka Yuvaraj Gonde</p>	<p>It is proposed to women safety using Raspberry Pi , the device intends to work in two sections. In the first section, if a woman is subjected to attack by an adversary, then a switch has to be pressed manually, by her (which will be ideally located at a convenient location on the body). This switch will trigger the controller (raspberry pi) to capture the image/video of the attacker and transmit it through duplicity. Attempts are</p>	<p>Only saved mobile numbers will get notification.</p>

			<p>being made to develop a method by which this image can be transferred on a web server. In Second section, emergency message "Please Help" will send to the pre decided cell phone numbers (typically the family and the friends) via GSM module.</p>	
5.	<p>Android Based Smart Device for Women's Safety</p>	<p>Prachi Dhole, Surabhi Joshi, Varsha Bansode, Prof. Bhakti Aher</p>	<p>Once button is press by victim, good phone vibrates and that we get a pop message as "calling for help", and then GPS trace the situation which location can send to the emergency contact via GSM of good phone.</p> <p>When the edge worth of measuring device crosses, the device can get activated mechanically. Directly the situation of the victim is</p>	<p>If sensor take more time for sensing then response may be delayed.</p>

			<p>going to be caterpillar-tracked with the assistance of GPS and emergency messages are going to be sent to 3 contacts and one to police room. The Buzzer are going to be activated and can channelize sirens to decision out for facilitate.</p>	
<p>6.</p>	<p>Smart solution for women safety using IoT</p>	<p>Mr. A. Jesudoss Mr. Y. Nikhila Mr. Sahithi Reddy,</p>	<p>The application which is proposed has access to track location and will send messages to the nearby police stations and the scanned phone numbers. This application is not only used for cases like rapes and any perverts teasing girls but this also helps them from any bad condition or any health problem like fainting suddenly. GPS is to track the</p>	<p>System totally dependent on mobile phone.</p>

			<p>location of the victim</p> <p>and to send messages, the location of the victim to</p> <p>the nearby police station and the phone numbers of</p> <p>the relatives of the victim. This application helps</p> <p>women to overcome their fear in going out and do</p> <p>things what they like to do</p>	
--	--	--	--	--

## Problem Statement

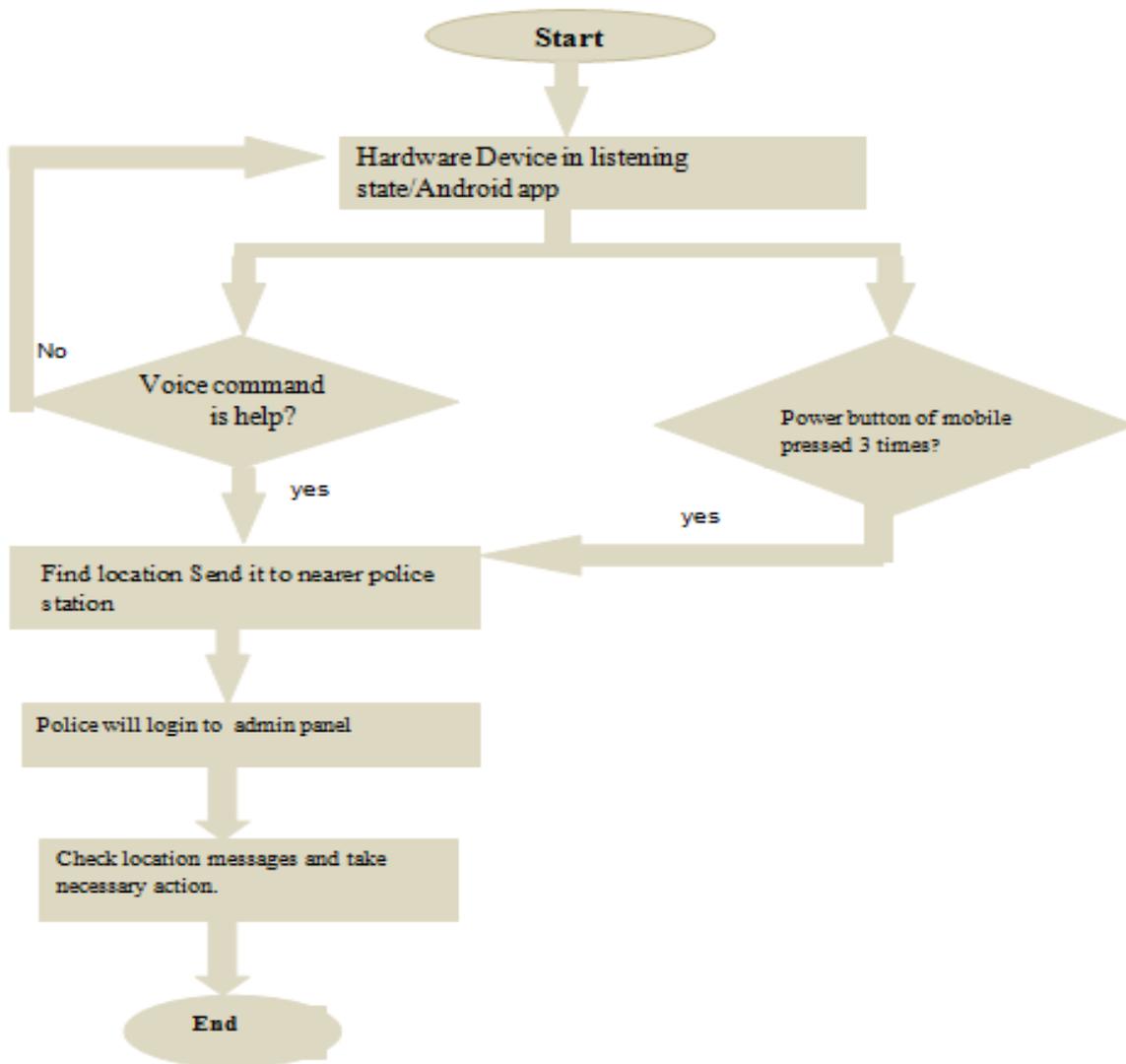
Many women are afraid to be alone in work places and even in public places due to fear of being harmed. This fear has been caused by repeated cases of violence towards women. The level of security can be increased more by electronics assistance device having portability that can be carried anywhere, which can track the location of women .

## Proposed System Methodology

For the implementation plan of the system, we provide a reliable security system for safety of women. In case of emergency user can ask for help by pronouncing a specific keyword “Help” in mic that will be recognised by raspberry Pi and will intimate the nearest police station by sending current GPS location of hardware device. It consists of the raspberry Pi 3 , GSM SIM 300 , microphone, memory card , etc.

This device or application will provide the women safety mode, this comes with the voice command or button, which will sends the message to the nearest police station with live location when women in danger situation.

## 4.2.Methodology



16

NIT, Nagpur

Figure 4.1 Data Flow Diagram for proposed approach

## Acknowledgement

This work is done, supervised and supported by the students and faculty members of the Department of Computer Science and Engineering, Nagpur Institute of Technology Nagpur, Maharashtra, India.

## Conclusion

The main goal of this project is to ensure that every women in the society feels safe and secure while travelling at night, on lonely roads, while going to workplaces, etc. As we know that women are facing many problems regarding their security.

## References

- [1] Smart Gadget for Women Safety using IOT by Mohammad Zikriya , Parmeshwar, Shanmukayya R math, Shraddha Tankasali Department of ECE, Basaveshwar engg Bagalkot ,2018.
- [2] IOT based child and women safety by Mehajabeen Budebhai, International Journal of Computer Science and Mobile Computing , august 2018
- [3] Cyber security and women safety application by Komal Bankar<sup>1</sup>, Mayuri Kakad<sup>2</sup>, Snehal Pawar<sup>3</sup>, Aishwarya Shelar<sup>4</sup> NDMVPS's KBT College of Engg., Nasik(India) 2018.
- [4] Women safety system using Raspberry Pi by Gonde Priyanka Yuvaraj; International Journal of Advance Research, Ideas and Innovations in Technology,2018.
- [5] Android Based Smart Device for Women's Safety by Prachi Dhole<sup>1</sup>, Surabhi Joshi<sup>2</sup>, Varsha Bansode<sup>3</sup>, Prof. Bhakti Aher<sup>4</sup>, Dept. of Computer, Dilkap Research Institute of Engg. & Management Studies, Neral, Maharashtra, India
- [6] SMART SOLUTION FOR WOMEN SAFETY USING IoT by A. Jesudoss, Y. Nikhila, T. Sahithi Reddy, Sathyabama Institute of Science and Technology, Chennai,2018.
- [7] Women safety using IoT by Sanjana Babdi, Janhavi Jathar, Tejaswini Tambe, Prof. Simran Singhani, Information Technology Xavier Institute Of Engineering Mumbai , India, 2020
- [8] Design and implementation of women safety system based on IoT Technology by B. Sathyashri ,U. Jayshree Vaidhya,G.V.K Jothi Sree,T. pratheeba,k. Ragarpriya ,2019.

## Websites Visited

<https://www.ijert.com>

<https://www.ijsmc.com>

<https://www.ijream.org>

<https://www.kscst.ernet.in>

<https://www.conferenceworld.in>