SAFETY DEVICE FOR WOMEN

[1]Ms. Bangar Madhuri, [2]Ms. Bhadane Srushti, [3]Mr. Bhamare Manish
[4]Mr. Jore Omkar, [5]Prof. Ms. Shraddha Shinde

Matoshri College of Engineering and Research Centre in Nashik
Maharashtra

***Abstract*- Today in the current global scenario, women are facing many problems like women's Harassment. We propose to have a System which is the integration of multiple devices, Hardware comprises of Portable system that endlessly communicates with a sensible phone that has access to the web. This paper covers descriptive details about the design and implementation of "System". The System consists of an Arduino UNO, GSM module (SIM900A), GPS module(Neo-6M), IoT module(ESP8266), Accelerometer Sensor(ADXL345), Buzzer, Panic Button, LCD . In this project, when a woman senses danger she has to press the Panic Button of the device. Once the system is activated, it tracks the current location using GPS (Global Positioning System) and sends an emergency message using GSM (Global System for Mobile communication) to the registered mobile number and nearby police station. IoT module is used to track the location continuously and update it into the webpage. Accelerometer Sensor can detect when she would fall, the buzzer is used as an alarm to alert the nearby people so that they may understand that someone is in need. The main advantage of this project is that this device can be carried everywhere since it is small and also provides safety to Women**

***Key Words*: Arduino UNO, GSM, GPS, Accelerometer sensor, Panic Button.**

Published in IJIRMPS (E-ISSN: 2349-7300), Volume 11, Issue 6, Nove- Dec 2023

INTRODUCTION

In the present-day scenario, women are actively participating and competing with men in every aspect of society. Women make a significant contribution to the development of our nation. However, despite their many achievements, women still face the very real fear of harassment and violence. Unfortunately, cases of harassment against women are on the rise. Therefore, it is imperative to ensure the safety and security of women. Introduces a proposed model of a system that aims to provide the necessary safety and protection for women. The model consists of a device capable of continuously tracking the user's location and sending location information to a predefined contact or number. Additionally, this system leverages the Internet of Things (IoT), which is a relatively new and rapidly evolving concept in technology. By utilizing IoTbased technology, guardians, relatives, and law enforcement can monitor and track various sensor data and the precise position of the device in real-time. The system is designed to be user-friendly, and it offers the advantage of portability, making it easy to carry and use. This innovative system is designed to address the increasing concern of women's safety by providing a means for continuous tracking and communication, ultimately offering a sense of security and peace of mind to women in our society. GPS Tracking: Once activated, the system uses the Global Positioning System (GPS) to determine the user's current location accurately. Emergency Message: The system employs the Global System for Mobile Communication (GSM) to send an emergency message to a pre-registered mobile number and the nearby police station. This message includes the user's location details.

1. PURPOSE

Ever rising increase of issues on women harassment in recent past is mostly about her safety and security. Women's safety is a major issue and the need for the hour. Thus we are implementing a women's safety

app which will enable us to track her live location and which will allow her to send instant message to her relatives and a nearest police station.
Key objectives and purposes of a Women Safety Device include:
This system consists of a microcontroller, Bluetooth module, Power supply, and a smart phone.
The GPS tracking, messaging and the alarm facility of the smart phone are also utilized. Here we are using a power supply of 9V. A 5 V to the microcontroller is given after regulation. Hardware is paired with the smart phone via Bluetooth. During normal operation, the time is displayed in the seven segment displays. If a switch 1 Safety Device For Women is pressed then simply the location will be sent to one or more predefined numbers. Another switch is used to spot the phone if lost or misplaced. The circuit consists of an ATmega328 microcontroller, HC-05 Bluetooth module and a button. Rising Concerns about Women's Safety: In recent times, there has been a significant increase in cases of harassment, violence, and other forms of abuse against women. This alarming trend has raised serious concerns about the safety and well-being of women in society. Empowerment and Equality: Women have made tremendous strides in various fields and are actively contributing to the development of nations. Ensuring their safety is not only a matter of basic human rights but also a way to empower women to participate fully in all aspects of society

OBJECTIVE OF SYSTEM

- **To Create Safety Device which can be carried by everyone.**
- **To Easy to wear.**
- **To be Compact.**
- **To have Ultra-low power consumption.**
- **To give Wireless connectivity.**
- **During danger situation can be activated very easily..**

LITERATURE SURVEY:

1. Design And Development Of Women Self Defence Smart Watch Prototype
Author: Shreyas R.S, Varun.B.C, Shiva Kumar.H.K, Punith Kumar B.E, Kalpavi.C
Year: Dec 2018
Women all over the world are facing and even subjected to unethical physical harassment. Security for women is still a major issue as the number of crimes and harassment over women and girls is increasing day-by-day.
2. Women Safety Device and Application "FEMME"
Author: hahreen Kasim Rohayanti Hassan
YEAR:2022
Using ARM controller for the hardware device is the most efficient and it consumes less power. We use radio frequency signal detector to detect hidden cameras. Findings: We analysed that there are no security device for our total safety
3. Design and Implementation of Women safety system based on IOT technology
Author: B. Sathyasri
Lobo Year: 2019
In this paper we present "Smart band". The device consists of a trigger,microcontroller.
4. One Touch Alarm for Women's Safety Using Arduino
Author: C. Priya
Lobo Year: 2022
switch tracks the place of the women using GPS (Global Positioning System) and sends emergency messages using GSM (Global System for Mobile communication).

PROPOSED SYSTEM

A women's safety device is a tool or gadget designed to enhance the safety and security of women. These devices are useful for various reasons, as they address common concerns related to personal safety, especially in situations where women may feel vulnerable The proposed system helps to supports the gender equality by

providing safe environment to women in the society, and allows them to work till late nights. Anyone before doing any crime against the women will be deterred and it help reducing the crime rate against the women. This is IOT Device this can help to women and also it can wear any people for their safety.

SYSTEM ARCHITECTURE

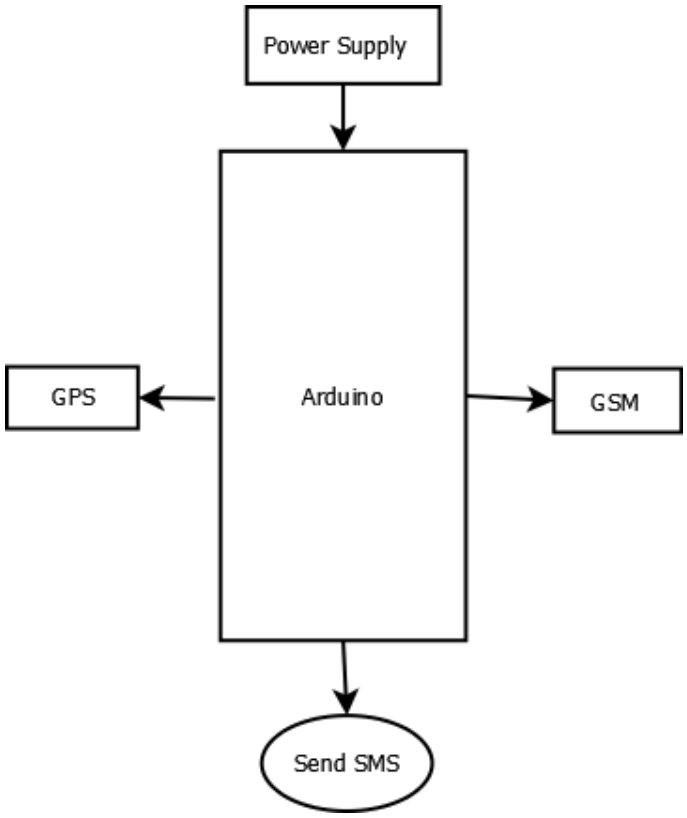

Fig -1: System Architecture Diagram

Modules

System including connecting hardware device

- Check women location through text message
- Location Detection
- Send SMS to Respective contact

ADVANTAGES

- Easy to used system
- Women's safety devices often come with resources and information on personal safety and self-defense.
- Carrying a safety device can provide women with a sense of security and peace of mind.
- Women's safety devices can be adapted to respect cultural norms and preferences, ensuring that they are not seen as intrusive or against local customs.

SYSTEM REQUIREMENTS

Software Used:

1. Operating System: Windows XP and later versions Front End: HTML,CSS
2. Programming Language: IOT
3. Tool: Netbeans IDE
4. Domain: IOT Security

Hardware Used:

1. Processor – i3 or above
2. Hard Disk – 150 GB
3. Memory – 4GB RAM
4. Sensors –GPS,GSM & Arduino

CONCLUSION

The proposed system helps to supports the gender equality by providing safe environment to women in the society, and allows them to work till late nights. Anyone before doing any crime against the women will be deterred and it help reducing the crime rate against the women.In some of the cases the system can provide useful evidences. Since the system can do audio- video recording of incidences which can act as the evidences.people in our country are unsafe everywhere. Public place safety is the need of the hour because the cases of harassment are increasing day by day. There are many reasons why people chose to keep silent when they come across any sort of harassment. The main motto behind initiating this application is to empower people and encourage them to claim their rights when injustice takes place

REFERENCES:

[1] Z. Ma and J. M. R. S. Tavares," A Novel Approach to Segment Skin Lesions in Dermoscopic Images Based on a Deformable Model," IEEE Journal of Biomedical and Health Informatics , vol. 20, no. 2, pp. 615-623, March 2016.

[2] Sudha J, Aramudhan M and Kannan S, "Development of a mathematical model for skin disease prediction using response surface methodology," Biomedical Research 2017; Special Issue: S355-S359.

[3] Igor Kononenko," Machine learning for medical diagnosis: history, state of the art and perspective,"Artificial Intelligence in Medicine , v.23 n.1, p.89-109, August 2001.

[4] V. B. Kumar, S. S. Kumar, and V. Saboo, "Dermatological disease detection using image processing and machine learning," 2016 Third International Conference on Artificial Intelligence and Pattern Recognition (AIPR) Lodz, 2016 , pp.1-6.

[5] Damilola A. Okuboyejo, Oludayo O. Olugbara, and Solomon A. Odunaike, "Automating Skin Disease Diagnosis Using Image Classification," Proceedings of the World Congress on Engineering and Computer Science 2013 Vol II WCECS 2013 , 23-25 October 2013, San Francisco, USA .

[6] "Expert System for Diagnosis of Skin Diseases", International Journal of Science and Technology , vol. 4, no. 1, 2015.