International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 09 Issue: 04 | Apr 2022 www.irjet.net p-ISSN: 2395-0072

SMART SECURITY DEVICE FOR WOMEN USING IOT

Geetha P, Sneha R, Sneka.S, Subhiksha.R

Electronics and Communication Engineering, Hindusthan College of Engineering And Technology, Coimbatore , Tamil Nadu , India

---

ABSTRACT:

In today's society, technology is critical to the development of a system that aids humanity. Women experience a lot of problems and uneasiness when they go alone in our daily lives because of the rising number of crimes. According to the report, 27% of women had been subjected to physical harassment since they were children. A smart security device for women has been designed to safeguard their safety by assisting them in escaping dangerous circumstances and alerting their family members and local police stations. It's a compact and portable device that you may take with you wherever you go. The project's goal is to create and test smart safety gadgets. GSM, GPS, Arduino, and sensors are all included. As a result, the smart gadget for women is extremely needed, and it also lowers female harassment. The suggested little project will, ideally, be a blessing to the female fraternity, assisting them in becoming secure and self-sufficient.

INTRODUCTION

Women are the backbone of every economy, and they are principally responsible for defining the country's destiny. She, who previously stayed at home to attend to her domestic tasks, now works and lives at the same time, equalising her participation in the economic development process.

on equal level with males Women are the most important component of any economy, as they are primarily responsible for shaping a country's destiny. Because of society's hypocritical attitude, many crimes against them go unreported. Victims who try to report their assaults to society are subjected to a variety of humiliations and abuse. In India, only one out of every four cases results in a conviction. To construct a better solution to this problem, proper safeguards should be taken. As a result, this article presents an IoT-based smart wearable for women's safety. The device detects such circumstances automatically and alerts the appropriate people. It not only assists women in escaping dangerous situations, but it also ensures that women are treated fairly by assisting them in times of need. The Indian government has approved an amendment to the Factories Act 1948 that will allow women to work night shifts, addressing a long-standing demand for gender balance in the workforce. The amendment proposes that women work night shifts only if their employer ensures their safety, adequate safeguards in the factory in terms of occupational safety and health, equal opportunity for women workers, adequate protection of their dignity and honour, and transportation from the factory to their nearest point of residence.

Night shifts have been around for a long time, but it wasn't until recently that women were allowed to work night shifts in India, thanks to an amendment to the Factories Act 1948. Women are involved in practically every aspect of economic activity. We can notice a number of women employees and entrepreneurs contributing to the country's national economy from hamlet to city. Garment factories already employ 60% of the female workforce, and this number will skyrocket as the business expands. Until now, the IT industry had no legal responsibility to give the following safety measures to women who worked late at night.

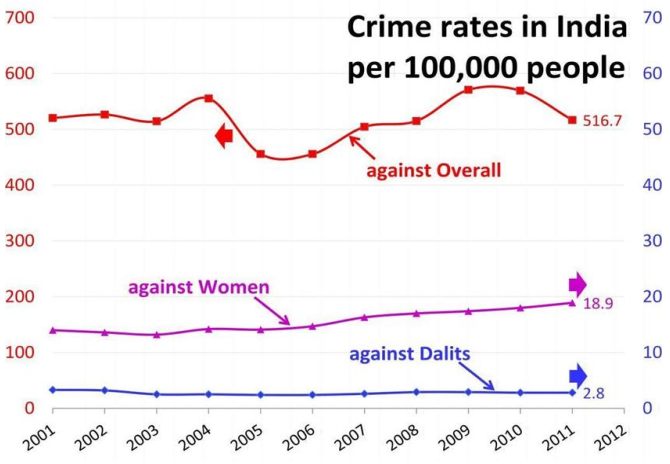


FIGURE 1

OBJECTIVE

The project's main goal is to create a smart wearable that can be used by women in times of need. The smart wearable should be capable of detecting the alarm mechanism. when the woman is in jeopardy at the right time When the warning system is triggered, the message is sent to the appropriate relatives.

APPLICATIONS

● In today's world, give parents a sense of security for their children.

● It can be used to keep physically challenged and elderly individuals safe.

● Soldiers can use this to report any activity.

● Ensures the safety of women.

● It's possible to use it as legal proof of a crime with precise location information for prosecution.

FEATURES

● It's little and simple to use.

● Notification in Real Time.

● Alerts are available 24 hours a day, 7 days a week, from anywhere.

EXISTING METHODOLOGY

There is no such monitoring system for women in the current system. However, in some areas where there is a high risk of molestation, CCTV cameras are installed and the recordings are kept in the cloud. By all means, this system is ineffective in preventing the issue. It can only be utilised after everything else has occurred. They have no choice but to use their cell phone to send a message to their friends and relatives to plead for assistance. Most women find it difficult to get a hold of their phones in the heat of the moment. Even if they do, sending a message fast before anything heinous occurs is tough. It's also incredibly unreliable. It should cause them a lot of problems, and there is no safety mechanism in place to safeguard the females from misbehaviour. Furthermore, there is no alert mechanism for the girl's safety in the current system; it must be done manually. The following are the drawbacks of current systems:

● Not at all dependable

● Manual labour is required.

● Expensive

PROPOSED METHOD

Temperature, pulse rate, and pressure sensors are used in the proposed system to identify any potentially dangerous scenario.

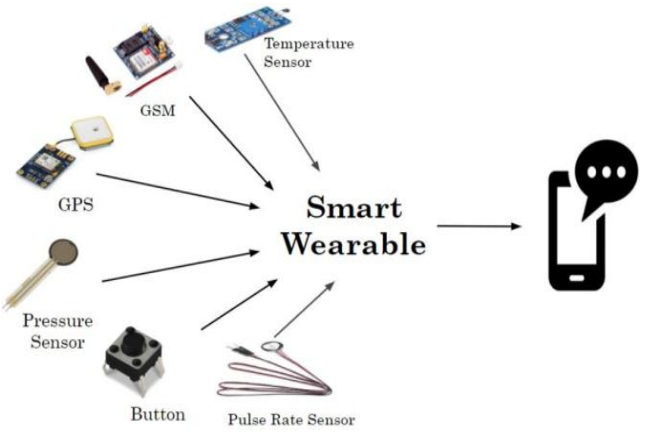
The suggested method gives an alert to prevent incorrect predictions. If one or both of the sensor readings are abnormally high.

- When the woman feels unsafe, she can press a button on the proposed system.
- If either of the above two scenarios occurs, the buzzer alarm will sound to inform others nearby.
- The woman's location will be relayed to her parents and a nearby police station via the SIM 808 module (GPS – GSM).

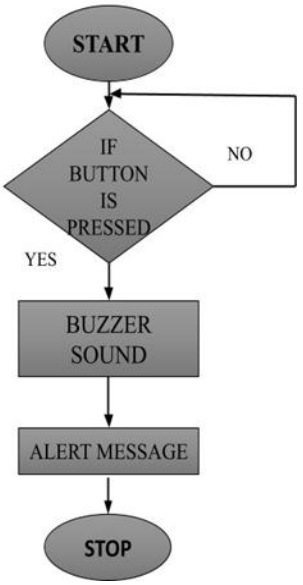
ADVANTAGES

The proposed system is lightweight and portable.

- It is a wearable gadget .
- To avoid confusion, the alarm mechanism is initiated if either of the two sensors senses abnormalities.



BLOCK DIAGRAM



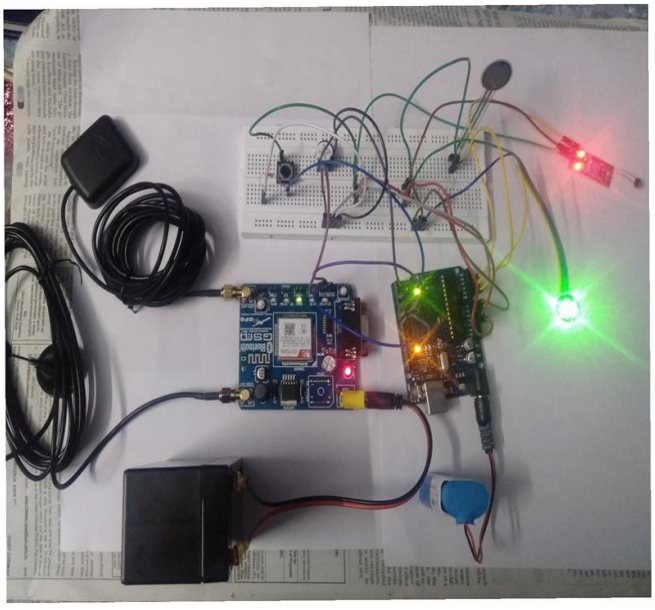
ALERTING METHOLOGY

❖ **GPS** is used to track the location and **GSM** is used to send the message .

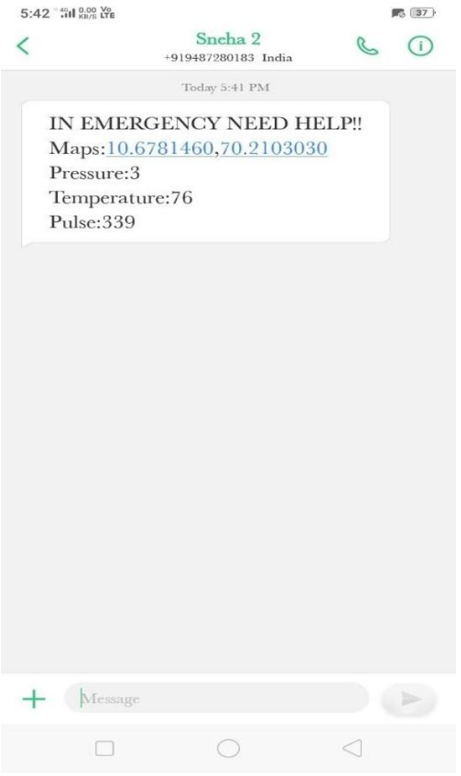
CONCLUSIONS AND FUTURE SCOPE

The components and modules used to build the module are shown in figure 6.1 below; the three sensors for the automatic mechanism, namely pressure, temperature, and pulse rate sensors, are shown on the top of the model, along with the other hardware required, such as GPS, GSM, buzzer, and Arduino, which are all present inside the model. When the victim presses the button and is in danger, an alert message is sent to the pre-programmed mobile numbers. When pressure and temperature sensors become HIGH, temperature and pulse-rate sensors become HIGH, or pulse-rate and pressure sensors become HIGH, the automatic mechanism is triggered.

The suggested system has the benefit of being adaptive, in that it permits activating the warning mechanism with a simple button in situations when it is humanly possible to reach the device, and it detects the threat using the sensor in situations where it is not possible to react. The proposed technology is also portable, lightweight, and cost-effective. It is simple to comprehend and apply. It does not necessitate the use of the internet. The sole stipulation is that the sim card be able to receive mobile signals in the area. Image of the Arduino output 39.



When the manual or automatic mechanisms are triggered, the output from the Arduino is shown in the diagram. The message is sent to the relatives' pre-recorded mobile phone numbers. When the alert mechanism is triggered, the relative receives a message from the prototype, as shown in the image. The coordinates of the victim's location make up the link. When you click the link, Google Maps will appear and give you directions to the victims. The Map Interface displays the locations. The person who is related to the victim can now follow the instructions and assist the victim.



When you click the link in the image above, Google Maps opens and directions to the victim's location are displayed.

REFERENCE

[1] Naeemul Islam , Md. Anisuzzaman , Sikder Sunbeam Islam , Mohammed Rabiul Hossain , Abu Jafar Mohammad Obaidullah “Design and Implementation of Women Auspice System by Utilizing GPS and GSM”. 2019 International Conference on Electrical, Computer and Communication Engineering (ECCE), 7-9 February, 2019

[2] S. A. More, R. D. Borate, S. T. Dardige, S. S. Salekar, Prof. D. S. Gogawale “Smart Band for Women Security Based on Internet of Things (IOT)” International Journal of Advance Research in Science and Engineering, Volume No 6,Issue No. 11, November 2017

[3] Mohamad Zikriya, Parmeshwar M G, Shanmukayya R Math, Shraddha Tankasali, Dr. Jayashree D Mallapur "Smart Gadget for Women Safety using IoT (Internet of Things)" International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, NCESC - 2018 Conference Proceedings

[4] S. Ruiz, L. Negredo, A. Ruiz, C. García-Moreno, Ó. Herrero, M. Yela, et al., "Violencia de género", Programa de Intervención para Agresores, Ministry of Interior of Spain, May. 2010.

[5] Remya George, AnjalyCherian.V, Annet Antony, Harsha Sebestian, Mishal Antony, Rosemary Babu.T " An Intelligent Security System for Violence against Women in Public Places ". International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-3, Issue-4, April

[6] B.Vijayalakshmi, Renuka.S, Pooja Chennur, Sharanagouda.Patil " Self[3] B.Vijayalakshmi, Renuka.S, Pooja Chennur, Sharanagouda.Patil " Self defence system for women safety with location Tracking and SMS alerting through GSM network". IJRET: International Journal of Research in Engineering and Technology eISSN: 2319- 1163 | pISSN: 2321-7308