



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

PROTECTION FOR WOMEN BY USING A PORTABLE SMART SECURITY DEVICE

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ABSTRACT:

This Project presents a women safety detection system using GPS and IOT modems. The system can be interconnected with the alarm system and android APP alert to the parents and neighbours. This detection and notify system is composed of a GPS receiver, Microcontroller and push button, buzzers and LED's. GPS Receiver gets the location information from satellites in the form of latitude and longitude. The Microcontroller processes this information and this processed information is sent to the user using IOT platform and the IOT modem sends a notification to the parents. When a woman in danger and in need of self-defense then she can press the button which is allotted to her. By pressing the button, the entire system will be activated then immediately a notification will be sent to concern person with location using GPS and also the parent can track that women from anywhere anytime. And further we can extended by adding up an shock pin Module for self-defence.

KEYWORDS: NodeMCU-ESP8266, GPS, Relay, Buzzer, Shockpin module, BLYNK IOT.

INTRODUCTION:

Now a days, women are facing colorful issues like sexual assaults. similar violence will surely have huge impact on the lives of victim. It also affects their health and their cerebral balance. These kinds of violence keep on adding day by day. Indeed academy women are abducted and sexually abused. We're living in a society where a nine months old girl child doesn't have security, the women was abducted, ravished and also boggled. On witnessing those violations against women, its impulses us to do commodity for women safety. So, in this design we've planned to propose a device which will act as a tool to give security and ensures the safety of the women. Microcontroller, GSM and GPS module are used to shoot announcements and current

position of women to colorful mobile figures in their contact. In addition, this design will also act as a safety measure which will stun the opposition for many seconds. This design will help us to deliver numerous women from those fiendish in the society.

In India, there are now significant worries about the safety of women. According to the National Crime Records Bureau, sexual harassment incidents increased 82% in 2016 versus the previous year. In every case, family members, friends, or neighbours made up 95% of the rapists. With the recent rape and murder of young women, the majority of public discussion has centred on outrage, punishment, and tougher laws. Everyday, women throughout the world are abused or molested. These predators must be kept out of the reach of women. She must protect herself since sometimes the law won't be enough to keep her safe. For it, a self-defense firearm is necessary. We are able to link the gadgets in the women's module to the web server with the aid of Arduino. The GPS kit's data will be collected by Arduino and sent to the web server.

The data will then be sent from the web server to the parent's Android application, allowing the parent to see where the women is right now. In this project, GPS will be utilised to deliver alerts containing the women's current position to Android devices. As a result of this system's reliance on gps capabilities, the cellular network is essential to its operation.

EXISTING SYSTEM:

In Women based security system victim has to press the emergency button, but in emergency conditions pressing the button is may not be possible. Using Smart Phone", the women cannot send its location by itself. The parent of that child has to send the message to the child's system to know their location. In "Mobile Tracking Application for Locating Friends", a tracking application software must be installed in the mobile phone and the friends must be previously registered in the friends group of application. To track their friends mobile phones are needed in both sides. In an Intelligent System based on RFID and GPS Technologies for Women Safety. has some limitations in terms of cost, signal interferences and also the information access to invalid and unauthenticated users. The main drawback of these applications and services is that the initial action has to be triggered by the victim which often in situation like these doesn't happen. So the emphasis is to build a solution that works autonomously in situations encountered. This paper presents new method to provide protection for women by ringing the buzzer and send the messages to the mobile numbers they stored, with the location where the women is present

PROPOSED SYSTEM:

This approach is intended for both parents and women. The women will have a tracking device, and the parents will each have an Android smartphone. Alert is a fundamental feature that will be utilised, but GPS is only available on Android smartphones. For communication between a tracking device and a web server, Arduino will be utilised. Parents use the programme to locate the women.

Using a GPS tracking gadget and an Android phone. The tracking gadget is carried by women along with an alert button on the Android phone that the parents are carrying that also contains the application. Which, when activated, will inform the parent that the women is in danger.

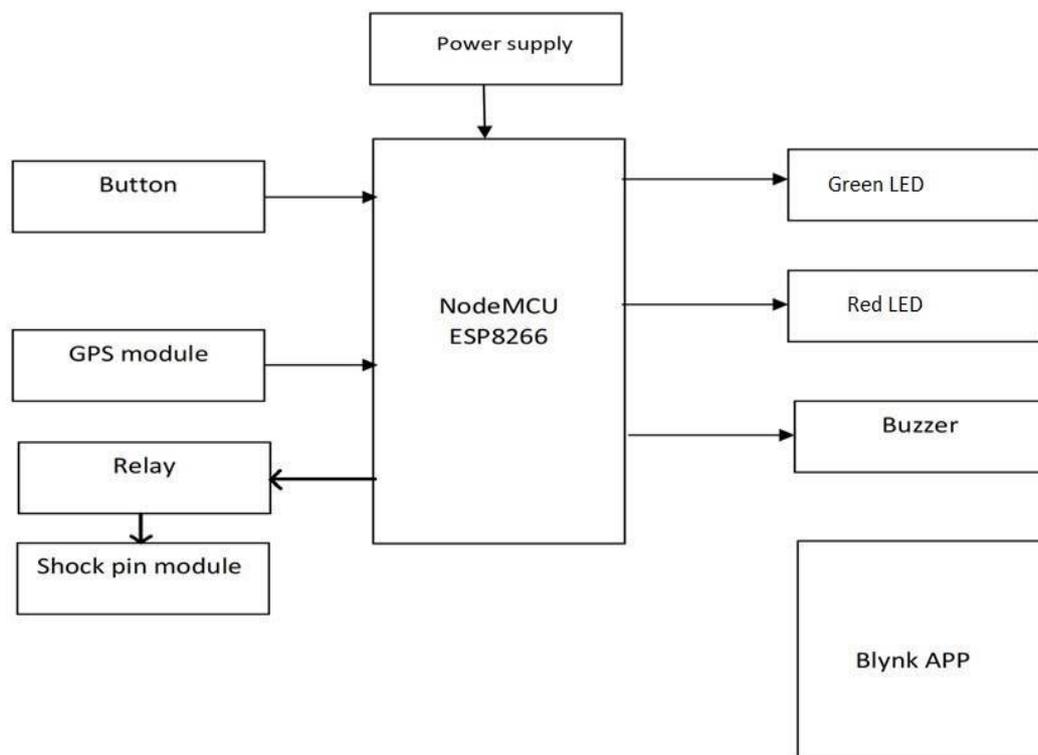


Fig: Block Diagram

WORKING:

After pressing the button, a microcontroller receives our inputs and processes them. Next, gps is used to display the location of the woman who is in danger. The global positioning system, or GPS, is used to find a person's whereabouts online, anywhere in the globe. When the red led is on, we must assume that woman is in danger. If the green led is on, however, the woman is safe. The buzzer will turn on when the woman is in danger.

- **ESP8266:** It stores the data and sends it to NodeMCU. It has an inbuilt wi-fi module and storage with 4MB ROM and 128KB RAM.
- **NODEMCU:** It is a 32-bit microprocessor with 16 GPIO pins, 12 Data pins, 1 UART, 1 SPI. It works at 5V power, with wi-fi frequency 2.4 GHz, 1 analog input pin and I²C pin.
- **RELAY:** Relay which acts as a switch and it gives 12V power to the lock. Relay is also a switch that connects or disconnects two circuits. But instead of manual operation a relay is applied with electrical signal, which in turn connects or disconnects another circuit.

- **BLYNK IOT:** It is a server, used for the send notification to the owner and real time monitor through the app. It provides High Security Service and Server for IOT applications.
- **GPS:** GPS is used to identify the location in the form of longitude and latitude.

CONCLUSION:

In the sphere of protecting the disabled, children, women, and others, smart and intelligent gps-based automatic tracking and alarm systems can be helpful. By employing an automatic calling system, these tracking systems help by boosting the possibilities of tracing the victim. The tool can locate precisely where anything is in a faraway place and track it. A tracking system can serve as a security measure.

REFERENCES:

- [1] Shaista Khanam, Trupti Shah, (2019) Self Defence Device with GSM Alert and GPS Tracking with Fingerprint Verification for Women Safety, International Conference on Electronics Communication and Aerospace Technology [ICECA], IEEE.
- [2] N. Islam, Md. Anisuzzaman, (2019) Sikder Sunbeam Islam, Mohammed Rabiul Hossain, Abu Jafar Mohammad Obaidullah, Design and Implementation of Women Auspice System by Utilizing GPS and GSM, International Conference on Electrical, Computer and Communication Engineering (ECCE), IEEE.
- [3] Sharifa Rania Mahmud, Jannatul Maowa, Ferry Wahyu Wibowo, (2017) Women Empowerment: One Stop Solution for Women, 2nd International Conferences on Information Technology, Information Systems and Electrical Engineering (ICITISEE), IEEE.
- [4] Anand Jatti, Madhvi Kannan, Alisha RM, Vijayalakshmi P, Shrestha Sinha, (2016) Design and Development of an IOT Based Wearable Device for The Safety and Security of Women and Girl Children, International Conference on Recent Trends in Electronics Information Communication Technology, IEEE.
- [5] Sunil K Punjabi, Suvarna Chaur, Ujwala Ravale, Deepti Reddy, (2018) Smart Intelligent System for Women and Child Security, 9th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), IEEE.
- [6] M. Kavitha, V. Sivachidam baranathan, (2018) Women Self-Protecting System Using Internet of Things, International Conference on Computational Intelligence and Computing Research (ICCIC), IEEE.
- [7] R. Pavithra, S. Karthikeyan, (2017) Survey on Women's Safety Mobile App Development, International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS), IEEE.

[8] Madhura Mahajan, KTV Reddy, Manita Rajput, (2016) Design and Implementation of Rescue System for Safety of Women International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET), IEEE.

[9] Nandita Viswanath, Naga Vaishnavi Pakyala, G. Muneeswari, (2016) Smart Foot Device for Women Safety, IEEE Region Ten Symposium (TENSYP), IEEE.

