WOMENS SAFETY PANIC BUTTON

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Abstract : Security is the condition of being protected against danger or loss. In the general sense, security is a concept similar to safety. The word "security" in general usage is synonymous with "safety," but as a technical term "security" means that something not only is secure but that it has been secured. Women safety is a very important issue due to rising crimes against women these days. To help resolve this issue we propose a GPS based women's safety system that has dual security feature. This device consists of a system that ensures dual alerts in case a woman is harassed or she thinks she is in trouble.

INTRODUCTION

As we can see the incidents happening in our country related to women are increasing day by day with respect to that we have created the project – women safety panic button. A Women Safety Panic Button is a device that allows women to quickly alert authorities, family, or friends in emergency situations, such as: So here I introduce one touch women's safety system that can be used by Any Woman Who Is Working Late at night Or Has the Doubt about Any abuse against her. The Women Just Has to Press The button For Help That's it.

- Assault

- Harassment

- Rape

- Kidnapping

- Domestic violence

Considering the situations mentioned above, we have designed a system through which a woman will be able to receive administrative and volunteer assistance in a very short time. We have given the highest priority to women's security so we have designed a system with a combination of hardware and software. Because only hardware or only software cannot guarantee complete security. We used a band as hardware and a mobile application as software. Hardware and software are connected to each other via Bluetooth. If a woman is in danger, then she will press the panic button available in the band. As a result, an emergency SMS will be sent to the user's family as well as at the police box, the traffic police, and certain volunteers who are near the victim.

This Project presents a women safety detection system using GPS and GSM modems. The system can be interconnected with the emergency call system and alert the family. This detection and the messaging system is composed of a GPS receiver, ESP worrom 32, MPU6050 and a GSM Modem. GPS Receiver gets the location information from satellites in the form of latitude and longitude. The ESP worrom 32 processes this information and this processed information is sent to the user using GSM modem. The GSM modem sends an SMS and call to the predefined mobile number. When a woman is in danger and in need of self-defence then she can press the panic button which is allotted to her. By pressing the panic button, the entire system will be activated then immediately a SMS will be sent to concern the person with location using GSM and GPS.

LITERATURE SURVEY

One of the key features of this innovative approach is the utilization of SMS with calling to alternative number of family technology to transmit the location's coordinates in case of an emergency. This method serves as a proactive and immediate response mechanism, aiming to enhance the safety of Indian women who may find themselves at risk. The safety gadget, as recommended offers a straightforward yet effective solution. In the event of an emergency, the device is designed to send an SMS containing the precise location coordinates to pre- programmed mobile numbers. This feature ensures that designated individuals, such as parents, friends, or authorities, receive immediate information about the user's location when an emergency situation arises.

METHODOLOGY

Modern security systems are built on the basis of precise controls where it is possible to design protection system that alerts the user by sending a text message and can use GPS for the purpose of tracking the victim and send a text message for the purpose of stopping it and can be used internet stuff to do this work that these innovative and modern methods are capable to limit women harassment. In case of emergency user will pressed a pushbutton then the Arduino will get's triggered , it executes the given program code, and then an emergency SMS will sent to emergency contact number which is programmed in device by the user.
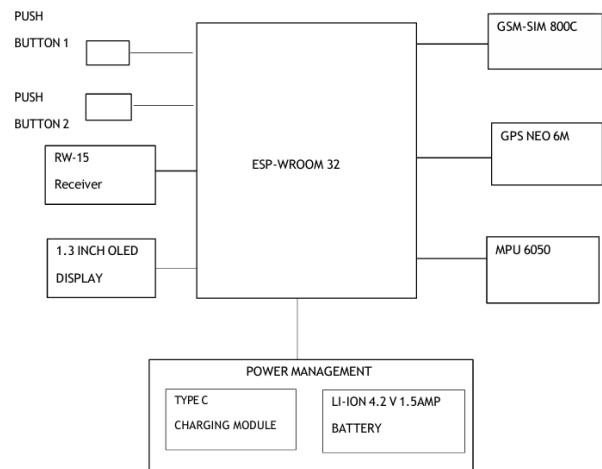

Fig: Block Diagram

RESOURCE USED

Hardware:
1. ESP WORROM 32
2. SIM800C GSM TTL
3. Type C charging module
4. Lithium-ion battery 3.7V
5. Pushbutton
6. 10k ohm resistor
7. Soldering wire
8. Soldering flux
9. Multimeter
10. Wirecutter
11. Breadborad
12. Male / Female connectors
13. PCB Board
14. A to B interfacing cable
15. OLED Display
16. MPU6050

Software:
1. Arduino IDE
2. Google map

CONCLUSION

In conclusion, the Women's Safety Panic Button using ESP32, MPU6050, I2C OLED Display, and SIM800C GSM TTL is a groundbreaking device that has the potential to make a meaningful difference in the lives of women everywhere. Its innovative design, user friendly interface, and robust safety features make it an essential tool for women's safety and security. As we move forward, it is essential that we continue to prioritize women's safety and security, and that we work towards creating a world where women can live without fear of violence or harassment.

In addition to its practical applications, the Women's Safety Panic Button also has the potential to contribute to a broader cultural shift towards greater awareness and action on women's safety and security. By providing women with a tangible tool to assert their right to safety, this device can help to challenge and change societal attitudes towards women's empowerment and protection.

One of the most significant advantages of this device is its ability to provide women with a sense of security and confidence. Knowing that help is just a button press away can be incredibly empowering, especially in situations where women may feel vulnerable or threatened. Moreover, the device's compact design and user-friendly interface make it an ideal solution for women of all ages and backgrounds.

FUTURE SCOPE

Integration with Wearable Devices: Integrating the panic button with wearable devices such as smartwatches or fitness trackers could provide an additional layer of convenience and accessibility.

Enhanced GPS Capabilities: Incorporating more advanced GPS capabilities, such as real-time location tracking, could enhance the device's ability to provide critical location information to emergency responders.

Collaboration with Emergency Services: Partnering with emergency services and organizations could help ensure seamless integration with existing response systems and protocols.

Advancement: By addressing these challenges and considerations, a Raspberry Pi-based Women's Safety Panic Button can become a powerful tool for enhancing personal safety and security

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