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Solar based Electronic Rescue System for Women safety

[1]Mrs. Sushma S. Bhosle, [2]Mrs.Sarika N. Patil, [3]Dr. Sagar V. Joshi, [4]Mrs.Neeta P. Karhadkar
Electronics and Telecommunication Department., NMIET, Pune, India

ABSTRACT

Women's security is a critical issue in today's world and it's very much needed for every individual to be acting over such an issue. This document describes a GPS and GSM based women security system that provides the combination of GPS device as well as provide alerts and messages with an emergency button trigger. Whenever somebody is in trouble. They might not have so much time all that they have to do is pressing the volume key. Especially women security has become the foremost priority of the world. System uses the Global Positioning System (GPS) technology to find out the location of women. The information of women position provided by the device can be viewed on Google maps using Internet or specialized software. The IT companies are looking forward to the security problem and require systems that will efficiently security working in night shifts, traveling alone. We focus on the proposed model that can be used to deal with the problem of security issue of women using GPS and GSM based tracking system.

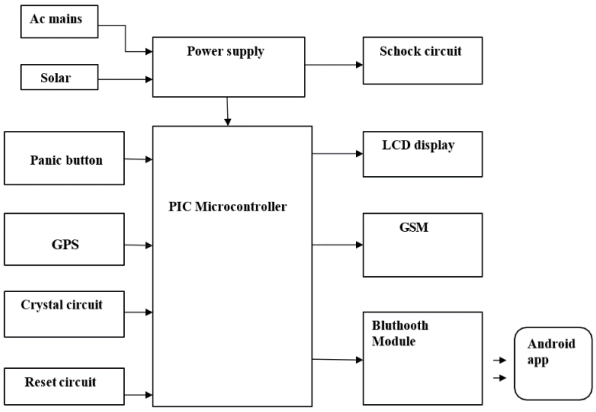
Keywords - GSM GPS, HELP, IOT, Microcontroller.

I. INTRODUCTION

Women are adept at mobilizing diverse groups for a common cause. They often work across ethnic, religious, political, and cultural divides to promote peace. We are all aware of importance of women's safety, but we must realize that they should be properly protected. Women's are not as physically strong as men, in an emergency situation a helping hand would be a relief for them. The best way to minimize your chances of becoming a victim of violent crime (robbery, sexual assault, rape, domestic violence) is to identify and call on resources to help you out of dangerous situations. Whether you're in immediate trouble or get separated from friends during a night out and don't know how to get home, having these device with can reduce your risk and bring assistance when you need it. Although several were originally developed for students to reduce the risk of sexual assault on campus

Here we introduce device which ensures the safety of women. This helps to identify resources to help the one out of dangerous situations. These reduce risk and bring assistance when we need it and help us to identify the location of the one in danger. This project designed to provide security to women. Main purpose of this device to provide the awareness on the time of critical situation for women. When you press the panic button device get activate and send SMS to those contact which you saved at the time of registration the SMS contain your message and your current location.

II. Proposed System



2.1 PIC MICROCONTROLLER:

A microcontroller is a small computer on a single integrated circuit consisting internally of a relatively simple CPU, clock, timers, I/O ports, and memory. Microcontrollers are used in automatically controlled products and devices. Microcontrollers are designed for small or dedicated applications. By reducing the size and cost compared to a design that uses a separate microprocessor, memory, and input/output devices, microcontrollers make it economical to digitally control even more devices and processes.

2.2 CRYSTAL CIRCUIT:

This circuit gives the required clock pulses to the microcontroller to give it the sense of the reference time

2.3 RESET CIRCUIT:

This circuit gives the microcontroller the starting pulse required to start the operation from the start. Unless this pulse is given, the microcontroller doesn't start functioning

2.4 BLUETOOTH:

Bluetooth Smart technology is a wireless communications system intended to replace the cables connecting many types of devices, from mobile phones and headsets to hear monitors and medical equipment. Wireless technology for short-range voice and data communication.

2.5 PANIC BUTTON:

A panic button is an electronic device designed to assist in alerting somebody in emergency situations where a threat to persons or property exists. When pressed, it sends a wireless signal to a home console which dials alarm monitoring staff and alerts them of an emergency condition. Depending on the severity of the situation, alarm monitoring staff will summon friends, family, or emergency services.

2.6 GPS MODULE:

Global positioning system is a navigational system involving satellites and computers that can determine the latitude and longitude of a receiver on earth by computing the time differences for signals from different satellites to reach the receiver.

2.7 GSM MODULE:

GSM (Global System for Mobile communication) is a digital mobile telephony system that is widely used in Europe and other parts of the world. GSM uses a variation of time division multiple access (TDMA) and is the most widely used of the three digital wireless telephony technologies (TDMA, GSM, and CDMA).

III. Result

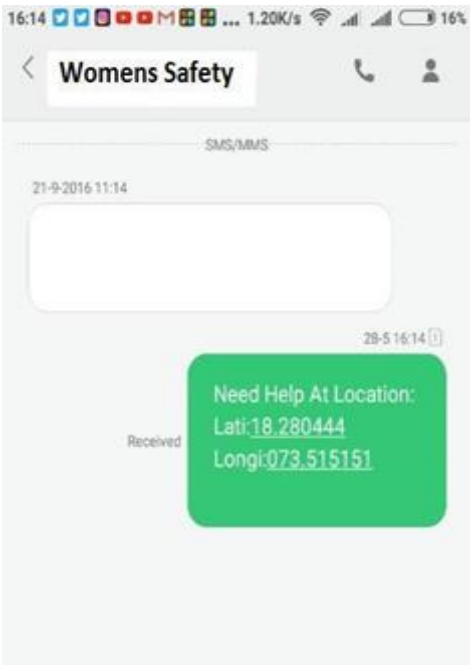


Fig. no.1 shows the sample of alert sms and fig no.2 show the accurate location on map

CONCLUSION

The proposed system is to ensure the security of the women in the society by send the "HELP & POSITION" to the relatives and the Police Station using Internet Of Things. Can be easily modified for improving the setup and adding new features. The system both accurate and reliable. Eliminates the continuously monitoring, it facilitates 24 hours a day, 365 days in year communication between system and user. It does not require line-of-sight operation. It is possible to implement this system on small board space also. Used for the safety of physically challenged people. Used for the safety of women. Used for the safety of children. Used as a legal evidence of crime with exact location information for prosecution.

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