

# Women Security Assistance System with GPS Tracking and Messaging System with Recordable Camera

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**Abstract:** The project “Women security assistance system with GPS tracking and messaging system” using PIC16F877A microcontroller is an exclusive project which is used to find the position of the person or vehicle where the user located on the earth. This information is provided by the GPS with the help of the data it receives from the satellites. The Microcontroller processes this information and this processed information is sent to the predefined mobile number using GSM modem and position values displayed on LCD. The recordable camera was recording everything.

**Keywords:** Recordable camera, Women security.

## 1. Introduction

The system permits localization of the person and transmitting the position to the mobile phone as a short message (SMS) and position values (latitude and longitude values) displayed in LCD. The system can be interconnected with the person and alert given to predefined mobile phone. The major components interfaced to this system are GPS Receiver, GSM Modem, and LCD. This tracking system consists of GPS receiver, Microcontroller and a GSM Modem. GPS Receiver gets location information from satellites. The Microcontroller processes this information and this processed

Information is sent to the predefined mobile number using GSM modem and position values displayed on LCD. There is also a recordable camera which records everything that is happening in the surroundings in a memory card.

## 2. An overview of existing systems

All in one Intelligent Safety System for Women Security [1] concluded that the 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 it will be detected and it helps for reducing the crime rate against the women.

Smart Electronic System for Women Safety [2] uses microcontroller, GPS, GSM etc. With the constant progress of mobile phone hardware and multimedia technologies we can access web technology.

Android Based Women Tracking System Using GPS and

GSM [3] propose a monitoring arrangement established on Android mobile terminal, alongside SMS as the medium. Our proposed work has been developed as a project but it could be enhanced further using nanotechnology concepts. Self Defence System for Women Safety with Location Tracking and SMS alerting [4] the emergency response system which is helpful for women in the incidents of crime. The main objective is to develop a low cost system which can store the data of the members in the particular locality and send immediate alert in case of crime against women.

Design and Implementation of a Rescue System [5] for the Safety of Women by using Arduino Controller will deal with critical issues faced by women and will help to solve them with technologically sound equipment and ideas. The crime against the women can be now brought to an end with the help of real system implementation of the model.

An extensive survey is done on RFID [6] and many methods can be used to design various form of RFID which results in accurate reading of information and better performance in power and image reading as well as in retrieving the information from the database

GSM and ADHAR based safety management system through Smart Poles [7] A step towards safety for humanistic Society (Women) will help to reduced crime rates especially for women in the city especially in market areas, lonely roads and rare areas.

Women Security System Using GSM and GPS design [8] will deal with critical issues faced by women in the near past and will help to solve them with technically sound.

## 3. Proposed system

Fig. 1, shows the block diagram of Women security assistance system with GPS tracking and messaging system. Each and every module is connected to microcontroller.

1. Micro controller (16F877A)
2. Reset button
3. Crystal oscillator
4. Regulated power supply (RPS)
5. LED indicator.

6. GPS module.
7. GSM modem.
8. LCD.
9. Recordable camera.

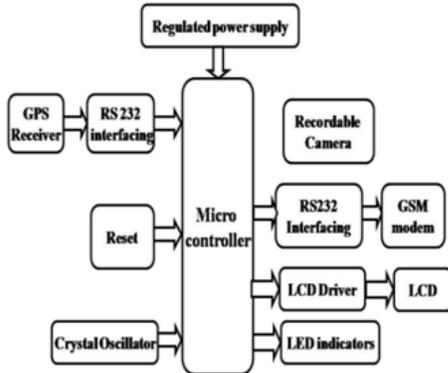


Fig. 1. Block diagram of women security assistance system with GPS tracking and messaging system

#### 4. Working of proposed system

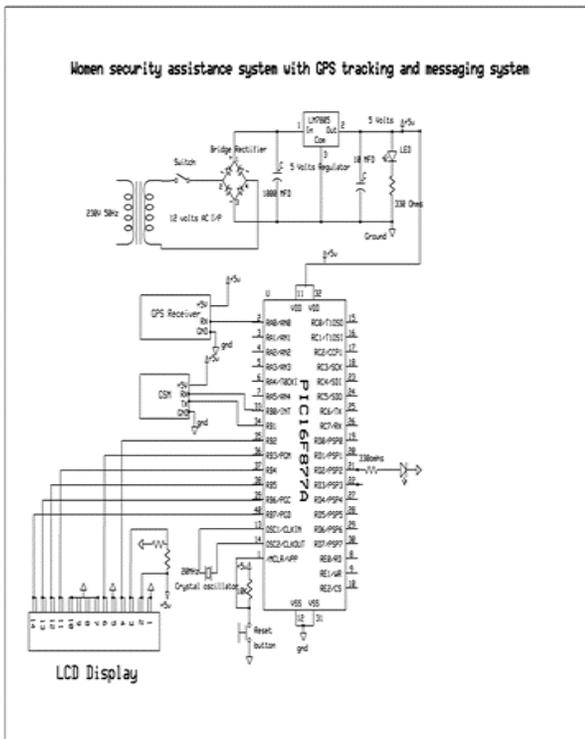


Fig. 2. Schematic diagram of women security assistance system with GPS Tracking and messaging system

The system can be interconnected with the person and alert given to predefined mobile phone. The major components interfaced to this system are GPS Receiver, GSM Modem, and LCD Fig.2. Schematic Diagram of Women Security Assistance System with GPS Tracking and Messaging System This tracking system is composed of a GPS receiver, Microcontroller and a GSM Modem. The Microcontroller processes this

information and this processed information is sent to the predefined mobile number using GSM modem and position values displayed on LCD. There is also a recordable camera which records everything that is happening in the surroundings in a memory card. When a person presses the alert button, it will detect the location of the person by using GPS and sends the alert message and location to the predefined numbers by SMS

#### 5. Results and discussion

The project “Women security assistance system with GPS tracking and messaging system” was designed such that GPS and GSM-SMS services. Fig. 3. shows women security Assistance System with GPS Tracking and Messaging System Kit Fig. 4. Shows User Location and Fig. 5. Shows Message alert in mobile. The system permits localization of the person and transmitting the position to the mobile phone as a short message (SMS) and position values (latitude and longitude values) displayed in LCD. The system records everything and store in to the MMC card.

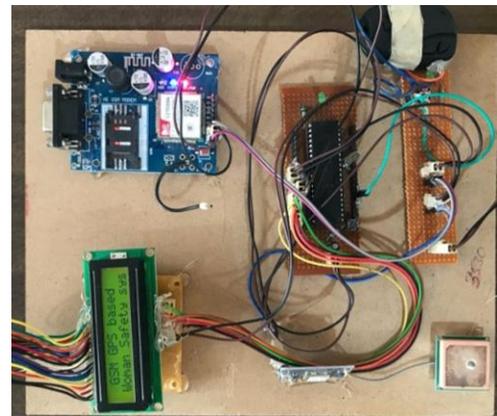


Fig. 3. Women security assistance system with GPS tracking and messaging system kit

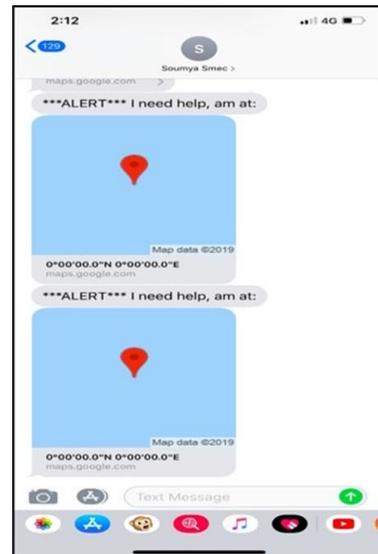


Fig. 4. User location

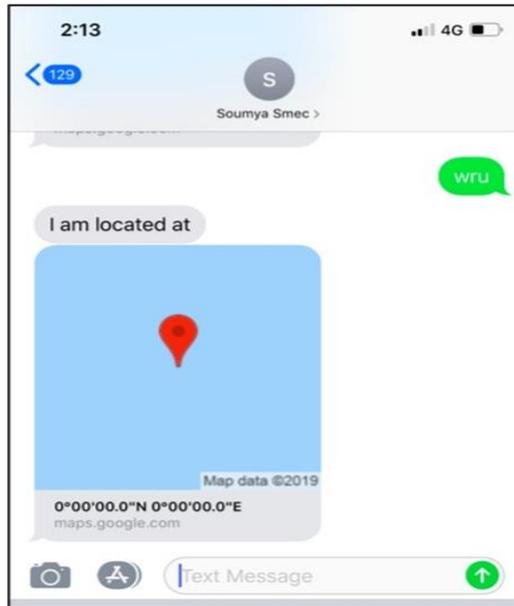


Fig. 5. Message alert in mobile

When a person presses the alert button, it will detect the location of the person by using GPS and sends the alert message and location to the predefined numbers by SMS as shown.

### 6. Conclusion

By using “Women security assistance system with GPS tracking and messaging system with recordable camera” we can

get alerts through mobile and also we can track location by using GPS system.

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