

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

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### ABSTRACT:

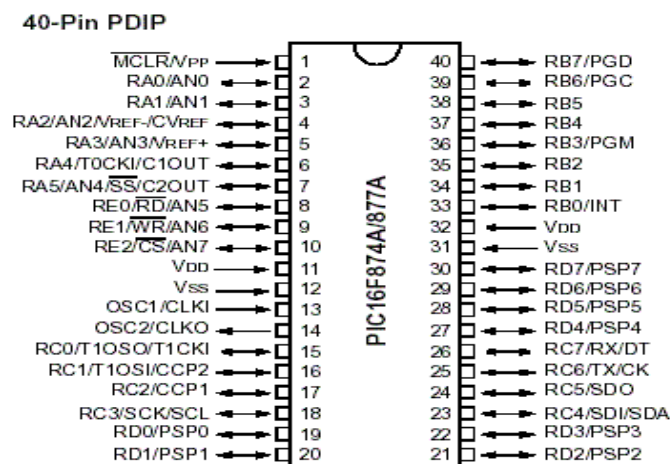
With the spurt in crimes against women, women security has become a matter of concern. The main intention of our project is to make women security system more reliable and accurate so that we can deal with this social issue promptly thereby enhancing women security. Some evil mentality people consider women as a toy and merely respect them. In order to save women from such disturbing elements; GPS Tracking and Messaging System has a pivotal role to play. From GPS used as a GPRS location of women travelling in the cab would be accessible to the Police Control Room and simultaneously her location will be immediately sent to her relatives for her rescue.

**KEYWORDS:-**GSM, GPS, GPRS, MICROCONTROLLER

### I. INTRODUCTION:

Basically this technology is an application of wireless system. We are using GSM for communication of women's location to her relatives through the MEMORY IC which has addresses of her contact numbers. Location of women would be monitored 24\*7 at the police control room through a website designed especially for this purpose.

The main perspective of designing this project is that we will make small, handy equipment which could be kept in purse. This equipment will be having a panic switch and as soon as the panic switch is pressed, her relatives will receive a message about her location and even the police control room will be informed through the ease of website. In this way, GSM and GPS will come into play. By this technology immediate help could be provided, thereby; avoiding crime.



**FIGURE 1: PIC MICROCONTROLLER**

## II. ARCHITECTURE OF THE TECHNOLOGY:

We have used PIC Microcontroller which has basically 40 pins. The reason for using microcontroller instead of a microprocessor is that unlike microprocessor which has only CPU in it, microcontroller has RAM, Rom which makes it more storage efficient. In addition to that communication with computer becomes easy through microcontroller. PIC is used as it is very convenient to use and the large number of pins help in interfacing.

We have used 7805 as voltage regulator as the PIC microcontroller works on 5V. Memory IC is used for storage as the phone addresses are stored in it. A crystal oscillator is also used with microcontroller to provide an external clock to microcontroller by which we set the machine cycle of the controller. LCD of 16×2 is used for display.

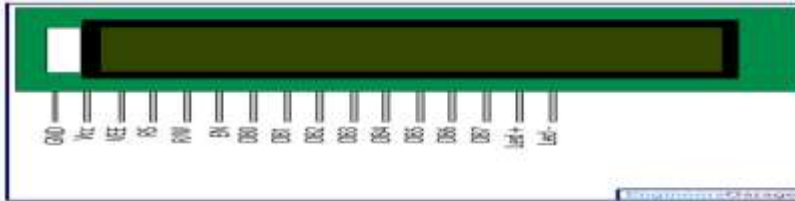


FIGURE 2: LCD DISPLAY

## III. A BASIC CONCEPTUAL STRUCTURE OF THE PROJECT:

The speed by which instructions are executed by microcontroller is known as crystal speed. Crystal oscillator is connected to the microcontroller. The crystal oscillator works at various frequencies but the one used in the project is 12MHz. UART interfaced with PIC Microcontroller is used for communication to computer. Panic Switch interfaced with PIC microcontroller is used as a trigger. On pressing the panic switch immediately trigger would be set up and due to this the circuit will immediately perform the necessary actions like first and foremost tracing the exact location and then the GSM is used for communication to the emergency contacts stored in our memory IC and the message which would be sent will be displayed on the LCD.

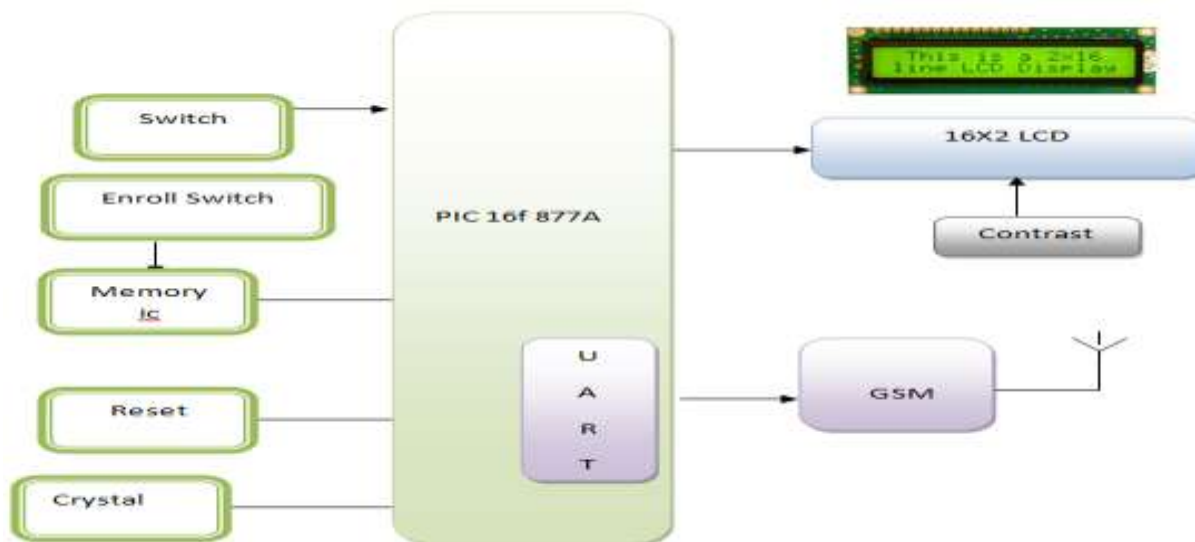


FIGURE 3: BLOCK DIAGRAM

**IV. CONCLUSION:**

The project has been completed successfully with proper result. The main motto of the project was women security which was aptly achieved through the location coordinates provided by GPS and the further communication of these coordinates converted into location name through GSM to the emergency contacts. The major advantage of the system is its simplicity in design and it requires no regular maintenance. Since it is quite economical it would be easy to afford thereby improving security which is the main motive of this project.

The only constraint which we faced during the course of project was applying this on a large scale as for this we need permission from Google Maps which is not an easy task as the permission from Google includes some more formalities along with it but for small scale it was not a hindrance on small scale.

In this prototype, two relays were kept which increase the versatility of this project as project is not restricted to only rather it can be used as a vehicle theft intimation device using the same GPS and GSM as used in women security system and further the ignition of car could be turned off; thereby preventing stealing of cars..

**V. ACKNOWLEDGEMENT:**

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**VI. REFERENCES:**

1. Francis Enejo Idachaba, "Design of a GPS/GSM based tracker for the location of
2. stolen items and kidnapped or missing persons in NIGERIA", ARPN Journal of
3. Engineering and Applied Sciences VOL. 6, NO. 10, OCTOBER 2011.
4. J.Parthasarathy, "Positioning and Navigation System Using GPS", International
5. Archives of the Photogrammetry, Remote Sensing and Spatial Information Science,
6. Volume XXXVI, Part 6, Tokyo Japan 2006.
7. Ibrahim Abdallah Hag Eltoum , Mohammed Bouhorma, "Velocity based Tracking and
8. Localization System using Smartphones with GPS and GPRS/3G", Department of
9. Computer Engineering, Laboratory of the Computer System and Telecommunication
10. "LCST" FST, Abdelmalek Essaadi University, Tanger, Morocco.
11. INTERNATIONAL JOURNAL FOR RESEARCH IN EMERGING SCIENCE AND TECHNOLOGY, VOLUME-2, ISSUE-1, JANUARY-2015 E-ISSN: 2349-7610 VOLUME-2, ISSUE-1, JANUARY-2015 IJREST,65-71pages Women Employee Security System using GPS And GSM Based Vehicle Tracking.
12. International Journal of Application or Innovation in Engineering & Management (IJAIEEM) Web Site: www.ijaiem.org Email: editor@ijaiem.org Volume 3, Issue 4, April 2014 ISSN 2319 - 4847 Volume 3, Issue 4, April 2014 Page 281.
13. International Journal of Information & Computation Technology. ISSN 0974-2239 Volume 4, Number 8 (2014), pp. 787-792 © International Research Publications House [http://www. irphouse.com](http://www.irphouse.com)
14. IJRET: International Journal of Research in Engineering and Technology eISSN: 2319-1163 | pISSN: 2321-7308 pages Volume: 04 Issue: 03 | Mar-2015, Available @ <http://www.ijret.org> 65 PORTABLE DEVICE FOR WOMEN SECURITY.
15. IJRET: International Journal of Research in Engineering and Technology eISSN: 2319-1163 | pISSN: 2321-7308 pages Volume: 04 Issue: 03 | Mar-2015, Available @ <http://www.ijret.org> 65 PORTABLE DEVICE FOR WOMEN SECURITY
16. Sumit Dwivedi, Shubhankar Tiwari, Ravi Mohan Singh, Swati Sharma, "Intelligent Train Engine and Running System", International Journal for Research in Applied Sciences and Engineering Technology, Volume 3 Issue IV, April 2015, ISSN 2321-9653.