Womens Safety System: An Encompassing Review

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Abstract— Women's 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. This system can be turned on by a woman in case she even thinks she would be in trouble. This paper discusses various security system which has been already implemented. Also this paper summarizes about proposed system which is going to implement using GPS and GSM. Thus this paper may act as a supportive material to know about security system for ladies.

Keywords: GPS, GSM

I. INTRODUCTION

Women's 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. This system can be turned on by a woman in case she even thinks she would be in trouble. It is useful because once an incident occurs with a woman she may or may not get the chance to press the emergency button. In a button press alerting system, in case a woman is hit on the head from behind, she may never get the chance to press panic button and no one will know she is in trouble.

Here we are introducing an intelligent women security system using Arduino UNO to inform about an emergency situation faced by women to the authorized people. We are using the GSM technology for the intimation to allocate the women. A GSM modem is used to send the position of the women from a remote place. This security system can be provided to the women. A manual switch called the emergency switch is attached with our system. During an emergency situation the women can press this switch. If the emergency switch is pressed, the microcontroller controls the function of the GSM modem for the intimation to the concerned person via SMS. MCU takes the value of latitude and longitude from the GPS receiver and transfer it to the pre-programmed mobile number via SMS through GSM modem. GPS module trace the position of mobile number from which SMS was send.

Our system solves this problem. This device is to be turned on in advance by a woman in case she is walking on a lonely road or some dark alley or any remote area. Only the woman authenticated to the devices can start the system by fingerprint scan. Once started the devices requires the woman to constantly scan her finger on the system every 1 minute, else the system now sends her location to the authorized personnel number through SMS message as a security measure and also sounds a buzzer continuously so that nearby people may realize the situation. In this case even if someone hits the woman or the woman falls down and get unconscious, she does not need to do anything, the system does not get her finger scan in 1 minute and it automatically starts the dual security feature. This device will prove to be very useful in saving lives as well as preventing atrocities against women. Women all over the world are facing much unethical physical harassment. Women and girls experience and fear various types of sexual violence in public spaces, from sexual harassment to sexual assault including rape and feticide. It happens on streets, public transport and parks, in and around schools and workplaces, in public sanitation facilities and water and food distribution sites, or in their own neighborhoods. This acquires a fast pace due to lack of a suitable surveillance system. So that our project is use to resolve this problem. The systems consist of GPS, GSM & Microcontroller. In which when any woman is critical condition then she press the key and at that time microcontroller start working GPS trace the location of woman and with the help of GSM message will be send to the number which we are already registered in SIM. We really believe that this endeavor will make a difference in the life of many and dream about seeing this world with individuals walking fearlessly.

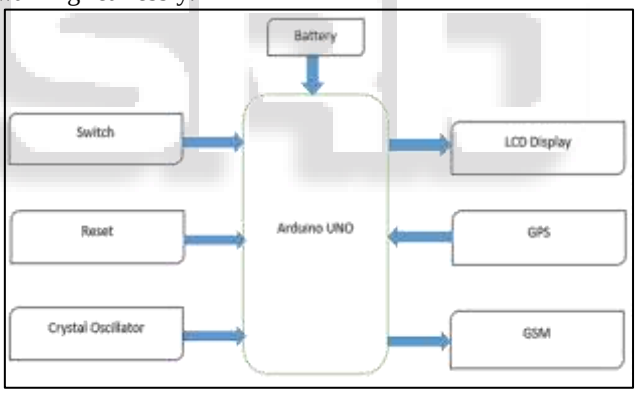

Fig. 1.1: Block Diagram of Proposed System

II. LITERATURE SURVEY

A. *Title 1:- Smart Girls Security System.*

Authors: - Basavaraj Chougula, Archana Naik.
International Journal of Application or Innovation in Engineering & Management (IJAIEM) Volume 3, Issue 4, April 2014

This paper explains about the existing and previous safety systems for ladies. Also this paper focuses on a security system that is designed solely to serve the purpose of providing security to women so that they never feel helpless while facing such social challenges. The system consists of various modules such as GSM shield (SIM 900A), Arduino ATMega328 board, GPS (GYGPS6MV2), screaming alarm (APR 9600), a set of pressure sensors for activation and power supply unit. The Delhi Nirbhaya case that triggered the whole nation was the greatest motivation for this system. It was high time we women needed a change.

B. Title 2:- Women Employee Security System using GPS and GSM Based Vehicle Tracking.

Authors:- Poonam Bhilare, Akshay Mohite, Dhanashri Kamble, Swapnil Makode and Rasika Kahane, INTERNATIONAL JOURNAL FOR RESEARCH IN EMERGING SCIENCE AND TECHNOLOGY, VOLUME-2, ISSUE-1, JANUARY-2015

This paper describes a GPS and GSM based vehicle tracking and women employee security system that provides the combination of GPS device and specialized software to track the vehicles location as well as provide alerts and messages with an emergency button trigger. The information of vehicle position provided by the device can be viewed on Google maps. The IT companies are looking forward to the security problem and require a system that will efficiently evaluate the problem of women employee's security working in night shifts. This paper focuses on the proposed model that can be used to deal with the problem of security issues of women employees using GPS and GSM based vehicle tracking.

C. Title 3:- A Mobile Based Women Safety Application

Authors: - Dr. Sridhar Mandapati, Sravya Pamidi,Sriharitha Ambati
IOSR Journal of Computer Engineering (IOSR-JCE) Volume 17, Issue 1, Ver. I (Jan – Feb. 2015)

This paper discussed various real time incidents that has been occurred in India in detail. Also paper contains limitations of existing system. In order to overcome such problems faced by women the I Safety (women security apps) mobile based application has been developed by authors. The application is not only necessary to use but also plays a pivotal role with android software.

D. Title 4:- Design and Implementation of Women Safety System Based On Iot Technology

Authors: B. Sathyasri, U. Jaishree Vidhya, G. V. K. Jothi Sree, T. Pratheeba, K. Ragapriya
International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-7 Issue-6S3 April, 2019

This paper explains a proposed a device which is the integration of multiple devices, hardware comprises of awearable "Smart band" that endlessly communicates with sensible phone that has access to the web. This paper covers descriptive details about the design and implementation of "Smart band". The device consists of a trigger, microcontroller (ATmega2560), GSM module (SIM900), GPS module (Neo-6M), IoT module (ESP-12E), Neuro Stimulator, Buzzer and Vibrating Sensor. In this project, when a woman senses danger she has to hold ON the trigger of the device. Once the device is activated, it tracks the current location using GPS (Global Positioning System) and sends emergency message using GSM (Global System for Mobile communication) to the registered mobile number and nearby police station. IoT module is used to track the location continuously and update into the webpage. Neuro Stimulator will produce non-lethal electric shock in emergency situations to detect the attacker, buzzer is used as an alarm to alert the nearby people so that they may understand that someone is in need and vibrating sensor will send the last location in case if the device gets defected. The main advantage of this project is that this device can be carried everywhere since it is small.

E. Title 5:- Women Security System using GSM & GPS A.H.Ansari1, Balsaraf Pratiksha P.2, Maghade Tejal R 3, Yelmame Snehal M.4

International Journal of Innovative Research in Science, Engineering and Technology Vol. 6, Issue 3, March 2017

This paper discusses some real time issues that was happened nearby. Also this paper suggests a new technology for a women safety with one touch system using GSM & GPS so that women never feel helpless while facing such social problems or challenges. In this they introduce a device which ensures the protection of women. The problems has been overcome here using raspberry pi, GSM, GPS and force sensor. Anytime when women sense danger only button is to be pressed on the device. In such case GPS tracks the location of the women & sends emergency message using GSM to saved contacts & police control room. The system proven that it is providing complete security to women's and kids wherever.

III. Conclusion

Various security systems for safety of ladies has been implemented throughout. The different technologies are implemented right now. Some technologies has been discussed in this paper. Along with this, proposed system which is going to implement using Arduino UNO is discussed in this paper. Thus it can be summarize that this paper may be useful to know about safety systems implemented for ladies and childrens.

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