Scientific Journal of Impact Factor (SJIF): 5.71

e-ISSN (O): 2348-4470
p-ISSN (P): 2348-6406

International Journal of Advance Engineering and Research Development

Volume 6, Issue 03, March -2019

WOMEN SAFETY DEVICE

(Emergency alert for women using GPS, GSM and Electric shock)

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Abstract — *now a day's crimes in the country are exponentially increased. The primary reason behind this can be the society that is prejudiced against the woman, lack of correct policing, ineffective laws etc. While the future solutions ought to aim to correct the on top of factors. Currently there's demand of some modification. Microcontroller applications have become additional standard in industrial controls. Because of integration of range of chips in one chip as result, price wise it's come back down, smaller size, less power dissipation. This factor created small controller a lot of common in industrial controls. Thanks to this options it created US potential to use microcontroller in police work the placement so avoid the crimes and save the life`s. the current project "WOMEN SAFETY SYSTEM" aims at providing security throughout emergency things by as well as GPS(the location wherever the victim is in) and GSM(sends message to close police stations or family members).Normally in emergency things an individual presses associate emergency key thus whenever associate emergency secret is ironed the ALARM gets activated for a such length and later the system can take GPS points (the location wherever victim is in terms of latitude and longitude) and it'll send it to the members of the family through GSM and furthermore because the close station house and necessary actions are taken.*

Keywords-*GPS (Global Positioning System, GSM (Global System for mobile).*

I. INTRODUCTION

Social evils like molestation, dowry, crime against ladies, worst among all is rape is on the increase in several countries. Incidents of crime against ladies have been increasing at associate fearful pace in Indian cities, commonest incidents being rape, kidnapping, harassment and eve teasing. Security {for ladies for ladies for women} continues to be serious issue because the range of crimes over ladies is increasing day-by-day.

Mobile phone is one appliance nearly everybody uses to stay in contact with family and friends. All they have may be a device that may be carried around simply whenever the lady feels unsafe. This proposal document describes a fast responding, value protection system for a personal and particularly for ladies exploitation that a girl in distress will incorporate facilitate simply with the press of a button on this good appliance. Self-weaponry for ladies safety may be a wearable device sort of a good Bracelet for ladies. It has the ability to help women with technologies that are embedded into a compact device. The women sporting this device like a watch or band, just in case of any harassment or once she finds that somebody going to harass her, she will press a swtch that's situated on the watch or band or once the ladies has fallen info the knowledge the data} regarding the attack beside the body posture and placement information is distributed as SMS attentive to some predefined emergency numbers and shortly assistance is on its way! The system can include embedded hardware and software system co-designed for this dedicated application. The system permits for knowing actual location of the individual, as presently because the trigger key on the belt is ironed. By providing the moment location of the distressed victim to the police in order that the incident may be prevented and therefore the wrongdoer understood. Just in case if the care taker desires to understand this location of the girl, he/she will do thus by causing a SMS to the SIM variety of the girl that contains a secret. Then this method responds to such request by causing back a SMS containing location data in terms of Latitude and meridian. This would facilitate scale back crime against ladies. It conjointly contains a shock mechanism to provide non-lethal electrical shock in emergency things to discourage the aggressor.

II. LITERATURE SURVEY

Mobile primarily based ladies safety application. During this paper some app created to understand whether or not a lady is safe or not? that indicates this state of affairs of the lady by touching the choice, that additionally indicates the placement of the vulnerable lady they gave a telephone, video forwarding, fake

calls, and site of the person, first-aid details, and application having the directions that's the thanks to use the applying.

Machine-controlled security system mistreatment police investigation

AUTHOR: -P. Vigneswari. The world is experiencing a massive implementation of home security. And automation plays a significant role within the day to day life. The aim of this paper is to supply high level security and automation of appliances .In this paper "Automated security system mistreatment surveillance" uses raspberry pi board that itself acts as a mini laptop. Whenever a person enters into the area, the fans and lightweight can mechanically turn on. At a similar time camera is additionally switched on and it takes the image of the one that has interrupted. The user is alerted by causing ANSMS with the link victimization GSM electronic equipment. The image may be viewed by clicking on this link. In the absence of an individual the fans and light can mechanically be transitioned.

III. CIRCUIT DESCRIPTION

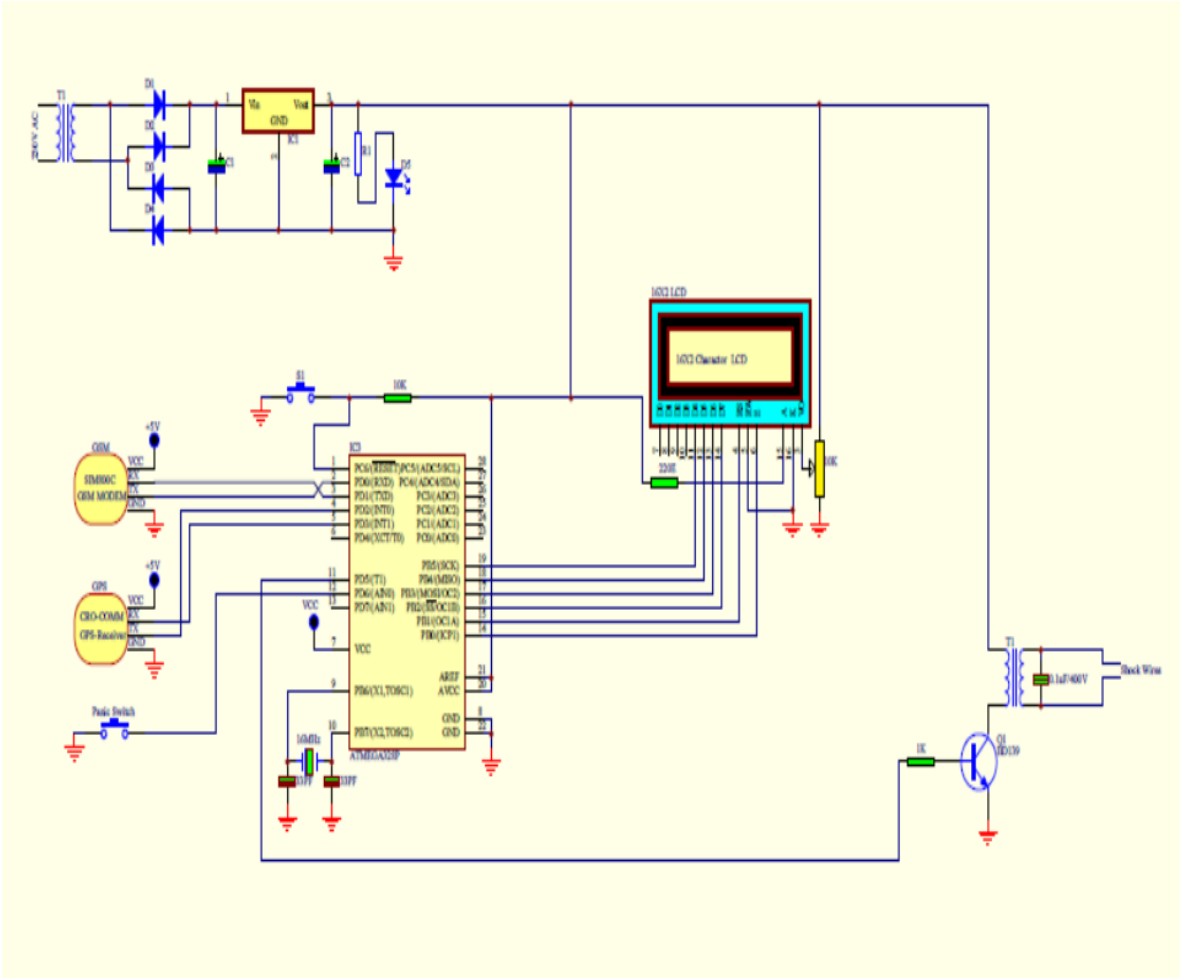
The circuit diagram of the ladies Safety System is as shown within the figure above. The circuit of the system starts with the power supply. The mains 230V AC is supplied to the primary of the step down transformer. The transformer steps down the supply and at secondary it gives 12V AC supply. The components in the system require DC supply. To convert the AC to DC supply a bridge rectifier is used in the system. This rectifier converts the supply to DC and fed it to the input filter to avoid the ripples in the supply. This 12v is provided to the regulator IC. The regulator IC used is LM7805. The input to the regulator is provided at pin no 1 of the regulator and the output is taken out from pin no 3 of the regulator. The pin no 2 of the regulator IC is grounded. The 5v from regulator IC is provided to the controller and different parts. A semiconductor diode is connected in between the regulator and also the controller to point whether or not the facility is on or off. The condenser at the input and also the output of the regulator is employed to get rid of the ripples in the signal i.e., this are filter capacitor.

The 5v supply to the controller is provided at pin no 7, 20 and 21 and the pins 8 and 22 are grounded. A reset switch is connected at pin no 1 of the Atmega328 microcontroller. When the reset switch is pressed it bypass the supply from pin no 1 of the controller to the ground. Hence the controller gets reset. As this switch is used to reset the controller this switch is called reset switch. A diode and resistor is also connected to the pin 1 of controller. A crystal of 16MHz with two capacitors is connected at pin no 9 and 10 which forms a crystal oscillator. This oscillator provides machine cycle to the controller on which the controller operates.

In this system a panic switch is included as given in the architecture of the system. This switch is used by the user. When the user senses danger or any culprit attacked the victim, the victim will press the switch to activate the system for self-defense by means of shock generator as well as to inform the family and police about the danger. This switch is interfaced with the µ-controller and connected to the identification number twelve of the controller IC as shown within the circuit diagram of the system. A sturdy correct positioning system with seamless indoor and outside coverage is extremely required tool for more safety in emergency response. The GPS utilized in the project is employed to sight the situation of the vehicle and therefore the GSM is employed to send the text message.

We have interfaced the GPS electronic equipment with the microcontroller and connected to the identification number four and five of the controller IC as shown within the circuit diagram of the system. The GSM electronic equipment is interfaced with the µ-controller and connected to the identification number two and three of the controller IC.GPS-based positioning strategies in the main accustomed track the persons/system user. This GPS electronic equipment provides the situation of the user in meridian and latitude parameters.

These parameters are going to be showed on the alphanumeric display display connected within the unit. This {led| liquid crystal show |LCD| digital show |alphanumeric display} display is interfaced with the µ-controller in four bit mode for the display purpose. For self-defense in a very state of affairs wherever less or no individuals area unit close, a lady should be ready to shield and defend herself also as produce some bother for the maltreated by some terribly simple suggests that. The protection unit consists of a shock generator devices that produces a moment electrical shock that once utilized by the lady will immobilize and hurt the assailant. This shock generator unit consists of an electrical device through that a pair of wires are taken out to give shock to the assailant as shown within the circuit diagram. This unit is interfaced with the microcontroller through a junction transistor to the PIN number eleven as shown in diagram. A simple, however powerful associate in nursing effective thanks to raise an alarm is thru a loud siren. And this can be achieved with the assistance of Associate in nursing electronic siren i.e. a Buzzer interfaced with the µ-controller as shown within the circuit diagram of the system. Thus, once the ladies device senses the emergency scenario of a lady, it triggers its alerting unit that alerts the close individuals concerning the crime by loud noises. The system shows the situation of the user on this alphanumeric display that is interfaced with the µ-controller in four bit mode.



In 4-bit mode, solely four knowledge pins of alphanumeric display area unit connected to the controller. This mode, thus, saves four pins of the controller in contrast to 8-bit mode. In four-bit mode solely 4 bit knowledge is send to alphanumeric display. Since 8-bit microcontrollers contains knowledge in 8-bit kind thus we have a tendency to divide our knowledge in to 2 nibbles (1 nibble=4-bits). 1st higher 4-bits (nibble) area unit send to alphanumeric display then the lower 4-bits (nibble). Only D4, D5, D6, D7 knowledge pins of alphanumeric display area unit utilized in 4-bit mode. D1, D2, D3, D4 area unit left empty. D4 is our least important bit and D7 is highest important bit. Interfacing alphanumeric display with Arduino microcontroller is straightforward. Port-B 1st four bits (PB2, PB3, PB4, and PB5) of microcontroller area unit wont to send 4-bit knowledge and commands to alphanumeric display. These four Pins(PB2,PB3,PB4,PB5) area unit Connected to for knowledge pins of 16x2 alphanumeric display (D4,D5,D6,D7).Port-C0 pin no twenty three is connected to RS pin of alphanumeric display. Port-B0 pin no 14 is connected to EN (Enable) pin of 16x2 LCD

IV. WORKING

The main purpose of our project is to provide security to the women from dangerous situations. This device consists of a key or button which might be ironed by the ladies once she is in would like or once she feels insecure. Because the switch is ironed by the ladies the microcontroller gets the command and it takes the present latitude and meridian price of the victim with the assistance of GPS module. Not solely this, the shock generator conjointly becomes active. In a situation where less or no people are nearby, a woman must be able to protect and defend herself as well as create some trouble for the abuser by some very easy means. The self-defense unit consists of a shock generator devices that produces a second electrical shock that once employed by the lady will immobilize and hurt the offender. The microcontroller put on the buzzer gift within the device in order that near folks could notice the essential condition and should come back to rescue. And microcontroller sends the SMS of current location to the registered mobile range of the loved one and police with the assistance of GSM module. The GSM sends this location and different knowledge at each 10sec in order that if victim is ever-changing its current location unendingly then which will be simply derived by police. And this GSM module conjointly calls the loved one and station house.

V. ADVANTAGES, DISADVANTAGES, APPLICATIONS

5.1 ADVANTAGES

- Safety Device which can be carried by everyone
- Ultra-low power consumption.
- Compact in size.
- Wireless connectivity.
- Easy and fast to install.
- Easy Maintenance
- Low cost with high performance.
- Works round the clock.
- Fast response.
- Environmental friendly system.

5.2 DISADVANTAGES

- Network problem

5.3 APPLICATIONS

- It is used for safety of women. It may be used for kid pursuit throughout faculty time.
- It may be used as a vehicle pursuit system.

VIII. CONCLUSION

Nowadays security is very important aspect for everyone, mostly for women who are facing various harassment problems. This system is helpful for such women to escape from the dangerous situation.
Our effort behind this project is to style and fabricate a gizmo that is therefore compact in itself that give advantage of non-public security system. The emergency response system that is useful for girls within the incidents of crime. It's low value system which may store the info of the members within the explicit neighborhood and supply immediate alert just in case of crime against ladies.

IX. FUTURE SCOPE

The thought will be accustomed offer the protection for Physically Challenged women by adopting voice recognition kit. It may be employed in the military applications to trace the troopers. The device may be employed in the journey connected events.

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