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Review of One Touch System for Women Safety

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Abstract: ***Now a day, Women all over in the world are more unsafe. So, in such cases they feel physical weak. In news papers we see there at list one news are rape and murder case. we watch on TV crime most of the women's kidnapping, sexual and physical harassment, rape, murder. In the light of latest news kopardi and Delhi bus rape and murder shock the nation. with some statistics cities rape incident occurrence of one rape incident in every 25minutes, lots of misbehavior activity does in rural part. So we wake us to help and protect them by using different tecniques.one of that most important and 100% useful and protecting technique is "one touch system".***

In an age of technology, mobile growth is increased to connect one person to another and keep in touch with each other. And our nation aim is digital India. So our project one-touch system using GSM &GPS & RASBERRY PI women's never feels unsafe, and physically weak. This application tracks the exact location. Anytime when women want she is in danger situation, someone follows her then press panic switch on the device. GPS track the location of women and send emergency help message using GSM to saved important contact also cyber-crime. Raspberry pi saved that live video and after 5 or 10 sec, that video also send to the saved contact numbers.so this system saves that women and as well as all data we get.so she gets compete security.

Keywords: Microcontroller 89C51, GPS receiver, GSM modem, Level Converter MAX 232, raspberry pi, etc.

I. INTRODUCTION

In today's world, women safety has become a major issue as they can't step out of their house at any given time due to physical/sexual abuse and a fear of violence. Even in the 21st century where the technology is rapidly growing and new gadgets were developed but still women's and girls are facing problems. Women are adept at mobilizing diverse groups for a common reason. They often work across ethnic, religious, political, and cultural divides to promote liberty. We are all aware of importance of women safety, but we must analyse that they should be properly protected.

Women are not as physically fit as men; in an emergency a helping hand would be assistance for them. The best way to cur tail your probability of becoming a dupe of violent crime (robbery, sexual assault, rape, domestic violence) is to recognize, defence and look up resources to help you out of hazardous situation. If you're in dilemma or get split from friends during a night out and don't know how to find back residence, this device with you will guard you and can reduce your risk and bring assistance when you need it. There are several app reduce the risk of sexual assault on women by informing control centre and their associates through SMS, but in lay of those this apparatus have much more efficient way to inform those this respected personal and also has a defending system which cannot be provided by existing app.

II. LITERATURE SURVEY

Following paper are used for this project

A. GSM based wireless home security system

In this work, we present the design and implementation of a GSM based wireless security system. This system contains the various parameters for security purpose, which contains a GSM modem. This system rapidly detects an intruder & conveys this information for alert women. "Abhishek S. Parabetal, / (IJCSIT) International Journal of Computer Science and Information Technologies, Vol. 6 (3), 2015, 2950-2953".

B. Mobile Application

In this paper, we describe the design and implementation details of a mobile application supporting news access and virtual community interactive services, based on open technologies such as Android, Java programming language, Android libraries, MySQL database and an open Web server. The objective of this project is to handle the mobile application easily, interactive, flexible, with a portable Android. This paper presented by" L. Ashwin Kumar. Mobile Application for News and Interactive Services in ARPN Journal of Science and Technology 2010-2012 ARPN Journals."

C. Video Application

In this paper, we are giving brief explanation about the camera based for night work of woman and

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the technique is used. "Ramya R, Hari Prashanth.D, Usha M, "A GSM Based Security Device for Women Working Late Night", International journal of advanced research in computer engineering & technology (ijarcet) Volume 4 issue 4, April 2015 1213".

D. GPS based wireless Application

In this we have found the brief description about the finding the location of user through GPS system. Self-defence system for women with location tracking and SMS alerting through GSM Network-B. Vijaylashmi, Renuka.S, Pooja Chennur, Sharangowda. Patil International Journal of Research in Engineering and Technology(IJRET) eISSN: 2319-1163 | pISSN: 2321-7308 Volume: 04 Special Issue: 05.

E. Security Application

In this we have searched the best protection security for woman's safety based on programming. Prof. Basavaraj Chougula, Archana Naik, Monika Monu, Priya Patil and Priyanka Das, "Smart Girls Security System", international journal of application or innovation in engineering & management (ijaiem) Volume 3, issue 4, April 2014 ISSN 2319 –4847

III. PROPOSED WORK

The "self defence system" is the project which will benefit to the women's safety. Here we are going to implement a system that can easily be carried out by each woman. As we have shown detail information about the proposed work in our block diagram.

A. Block diagram

1) Transmitter

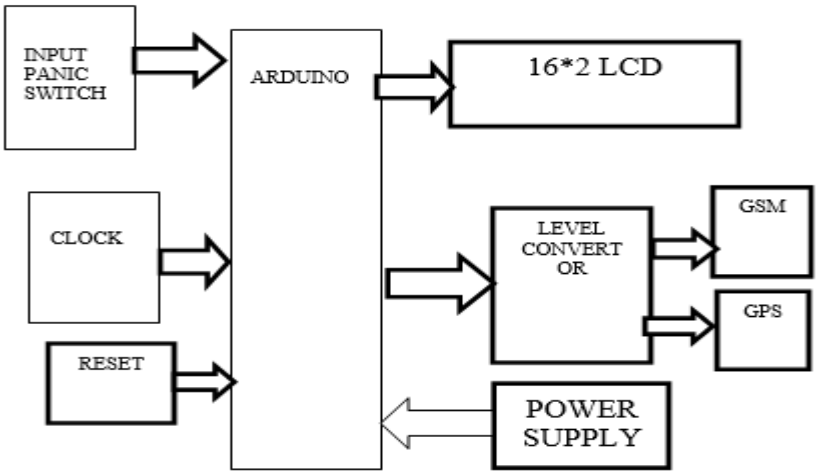


Figure: - (A) Shows the Transmission section

B. Receiver

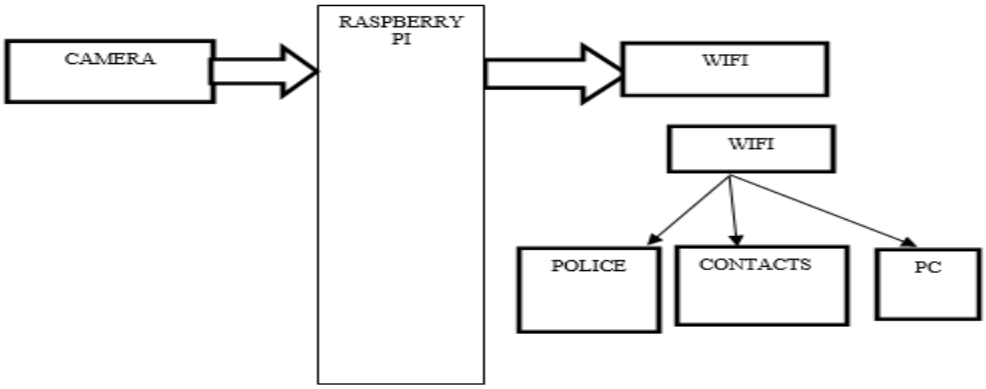


Figure: - (B) Shows the Receiving section

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C. *TRANSMITTER*

1) *Arduino Uno:* Arduino is an open-source platform used for building electronics projects. Arduino consists of both a physical programmable circuit board and a piece of software, or IDE (Integrated Development Environment) that runs on your computer, used to write and upload computer code to the physical board. The Arduino platform has become quite popular with people just starting out with electronics, and for good reason. Unlike most previous programmable circuit boards, the Arduino does not need a separate piece of hardware (called a programmer) in order to load new code onto the board – you can simply use a USB cable. Additionally, the Arduino IDE uses a simplified version of C++, making it easier to learn to program. Finally, Arduino provides a standard form factor that breaks out the functions of the ARDUINO into a more accessible package. The Arduino hardware and software was designed for artists, designers, hobbyists, hackers, newbie's, and anyone interested in creating interactive objects or environments. Arduino can interact with buttons, LEDs, motors, speakers, GPS units, cameras, the internet, and even smart-phone or TV. This flexibility combined with the fact that the Arduino software is free, the hardware boards are pretty cheap, and both the software and hardware are easy to learn has led to a large community of users who have contributed code and released instructions for a huge variety of Arduino-based project
2) *LCD display::* This display contains two internal byte wise resisters, one for the commands (RS=0) and second for character to be displayed (RS=1). It also contains a user programmed RAM area (the character RAM) that can be programmed to generate any desired character that can form using a dot matrix. To distinguish between these two data areas, the hex command byte 80H will be used to signify that display RAM address 00H is chosen. The display takes varying amounts of time to accomplish the functions. LCD bit 7 is monitored for logic high (Busy) to ensure the display is not overwritten
3) *Power supply:* This block converts 230 Vac into +5-volt dc and +12-volt dc. +5 volts is required for Micro-controller89C51 board, MAX232 level converter, LCD display, sensors and signal conditioning etc. + 12 Volts are required for Buzzer, GSM and GPS Module
4) *Level converter MAX 232:* RS-232 INTERFACE: For GSM modem, which works on the RS-232 voltage levels, logic 1, varies from -3 to -15 volts and logic 0 from +3 to +15 volts. The microcontroller, which works on TTL logic levels, logic 1, is +5 volts and logic 0 is 0 volts. Therefore, to interface the two we use a MAX 232 driver IC manufactured by Maxim
5) *GSM Modem:* A GSM modem is a wireless modem that works with a GSM wireless network. A wireless modem behaves like a dial-up modem. The main difference between them is that a dial-up modem sends and receives data through a fixed telephone line while a wireless modem sends and receives data through radio waves. Like a GSM mobile phone, a GSM modem requires a SIM card from a wireless carrier in order to operate. A GSM modem can be an external unit or a PCMCIA card (also called PC Card). An external GSM modem is connected to a PC through a serial cable, a USB cable, Bluetooth or Infrared. Like a GSM mobile phone, a GSM modem requires a SIM card from a wireless carrier in order to operate. PC's use AT commands to control a GSM modems. You can use a GSM modem just like Hayes compatible modem. GSM modems support an extended set of AT commands. These extended AT commands are defined in the GSM standards.
6) *GPS Modem:* Developed by the U.S. Department of Defence for the military, the Global Positioning System (GPS) is a worldwide, satellite-based, radio navigation system that will give you the exact position of your device, no matter where they are, what time it is, or what the weather is like. A total of 24 satellites orbit the Earth, monitored continuously by earth stations. The satellites transmit signals that can be detected by GPS receivers located in your device and used to determine their location with great accuracy.

D. Receiver

1) *Raspberry Pi:* Raspberry pi is like a small size computer. It has facility of SD card which is the storage device of our system such as audio-video features. It has port pins of 40 and from that 26 pins are original layer used where the additional 9 pins GPIO system uses.

E. Operation

1) *Transmission section:* Panic switch comes at first priority in our device. Panic mode ON to start the device. Arduino board start run its system. Level convertor's operation has convert the logical level (voltage). Here the message and record data is send through the GSM. GPS is used to track the location.
2) *Receiving section:* Here the data is received through the net (WIFI). Camera starts to record the video in SD card through Raspberry Pi. It sends the data (video) live recording to selected members.

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IV. CONCLUSIONS

It can be concluded that through our system women's safety are properly protected and they do not feel alone. Video can be recorded as proof.

V. ACKNOWLEDGMENT

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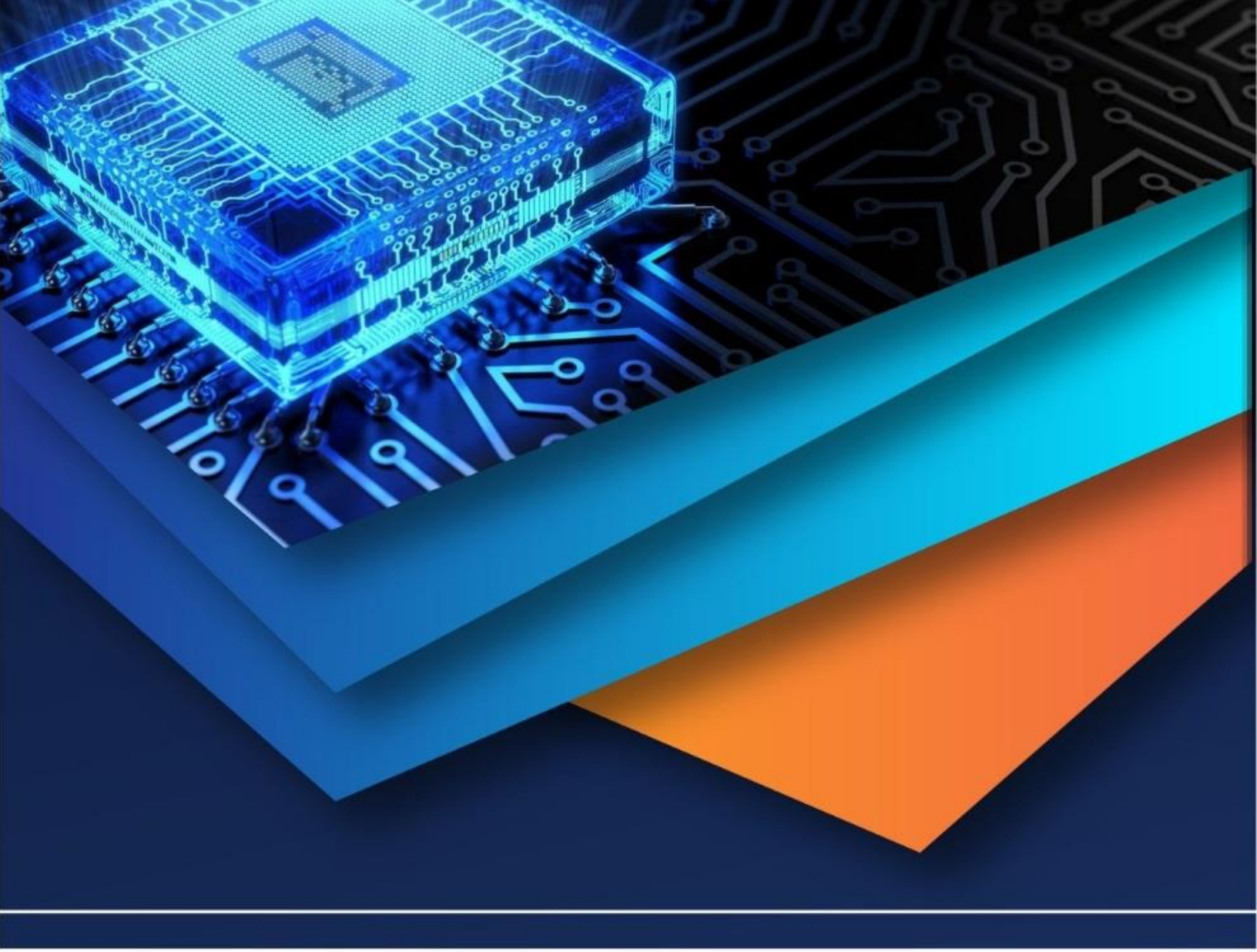
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