ANALYSIS AND IMPLEMENTATION OF WOMEN'S SAFETY MEASURES USING VICTIM'S HEART RATE AND BODY TEMPERATURE

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Abstract --- **Thousands of people (mainly women) are daily mistreated, battered and abused by their ex-couples or their current couples. In this sense, electronic surveillance can be an efficient tool for helping to guarantee the safety of victims. Ambient Intelligence (AmI), based on ubiquitous computing, represents a promising approach to make technology adapt to people in order to solve the challenge of developing strategies that allow the early detection and prevention of problems in safety environments and, more specifically, the protection of people under risk situations, including cases of mistreatment or loss. This project describes Guardian, an integral solution designed for improving the protection of mistreated and at-risk people by means of the integration of GPS, Wifi and IOT technologies. The basic architecture of the system, the proposed wireless devices, as well as the communication protocol used between the system and the devices are described. Furthermore, a first hardware and software prototype is depicted and tested.**

Keywords–Ambient Intelligence, Ubiquitous Computing, GPS(Global Positioning System),Wifi,IoT Techonology.

1.INTRODUCTION

According to the National Crime records Bureau, the total number of rape cases in India was a staggering 228,650 and Delhi, the national capital accounted for 5234 of those and in 2011 according to Ministry of Home Affairs, a total of 24193 cases were reported. This is just the tip of the iceberg. Rape is a notoriously under-reported crime, thanks to its social stigma. A woman is raped every 21 minutes in India and every 18 hrs in Delhi it's shameful for the whole world. The primary reasons behind such shocking statistics is the society which is prejudiced against   the girl child, lack of proper policing, ineffective laws etc. While the long term solutions should aim to correct the above factors. Now there is requirement of some change. By observing such bad conditions of women in the world, we the team "Dream Team" came up with "Smart Watch for Women". This "Smart Watch for Women" has the potential to help women by the technologies that are embedded in it. "Smart Watch for Women" provide watch and this watch is specially designed for women safety. It has a button that will be used by women to inform nearby police when they feel danger. This watch directly gets connected to the satellite through GPS when activated. Then the location is transferred through the GSM and this watch is also provided with a system that produces 60 shockwaves in 1 second in emergency situations.

Existing System :

The world is becoming unsafe for children and women in all aspects. The crimes against women due to sexual harassment and eve teasing are increasing at a higher rate. The employed women are feeling threaten due to increasing crime rates. There are many methods raised for providing security to the women. In this section we discussed few methods for women's security. Women and Children's Security based Location Tracking System Now-a-days children and women are fronting many safety related difficulties. In such circumstances, they are helpless and don't have any way to protect them or inform it to their family supporters, neighbors or police station and they feel as handicaps. Hence there should be a system to guard them in such times. So this system helps them to search for help in any critical condition. For that, the system comprises GPS to detect location and GSM mechanisms to pass their current position to any one of the trusted contacts as a Google map link and services are provided to track the locations from that moment onwards to save the person. Smart Security Solution for Women Based on Internet of Things (IOT) they propose to have a device which is the integration of multiple devices, hardware comprises of a wearable "Smart band" which continuously communicates with Smart phone that has access to the internet. The application is automated and loaded with all the required data which comprises Human behavior and responses to different situations like anger, fear and anxiety. This makes a signal which is communicated to the smart phone. The software or application has access to GPS and Messaging facilities which is pre-programmed in such a way that whenever it receives emergency indicator, it can send help request along with the site co-ordinates to the nearest Police station, relatives and the people in the near radius who have request. This action allows help immediately from the Police as well as Public in the near

area who can reach the victim with great precision multiple devices, hardware comprises of a wearable "Smart band" which continuously communicates with Smart phone that has access to the internet. The application is automated and loaded with all the required data which comprises Human behavior and responses to different situations like anger, fear and anxiety. This makes a signal which is communicated to the smart phone. The software or application has access to GPS and Messaging facilities which is pre-programmed in such a way that whenever it receives emergency indicator, it can send help request along with the site co-ordinates to the nearest Police station, relatives and the people in the near radius who have request. This action allows help immediately from the Police as well as Public in the near area who can reach the victim with great precision

Existing Systems as a part of literature survey, we investigated some applications that offer the same or similar services. The aim is to see how these band work and to see how they can be improved. Today the cases of atrocities on women are growing. In these types of cases, a smart phone and hand band plays an important role for safety of women. Some of the previous developed applications are as follows:

1.WOMEN SAFETY SYSTEM USING ARDUINO UNO AND INTEGRATED SAFETY APP: It is an accepted fact that brutal crimes against women are occurring in India daily. Now many Indians do not deny or shy away from conversations relating to eve-teasing, sexual assaults or rape. Even the common man's conversation on the streets often steers towards the escalated and horrendous attacks on women. The device called as "Virtual Friend" is specially designed for the women in trouble. It is a device used for the women in a chaotic situation. The basic approach is to use the Arduino Uno microcontroller based on ATmega328P has the function of send and receive data which is provided by Arduino GSM shield using GSM network. Arduino Uno gets the coordinates of the current location; it transfers the coordinate details to the user's smart phone via Arduino GSM shield. The SOS light is a signal used to alert the passerby and it gives the sign of universal help to the victim who is in distress. The alarm buzzer is activated if the woman is in danger situation. In the critical situation, the women send the message or make a call including the location of the particular incident to the registered contacts through the use of GSM and GPS.

2. A SMART ALARM SYSTEM FOR WOMEN'S SECURITY: This paper detailed about a smart alarm system for women's security. Women all over the world are facing much unscrupulous physical irritation. This acquires a fast pace due to lack of a suitable investigation system. The system look like a group on the wrist merged with pressure switch as an input which when triggers shows the result loud alarm imposed for self-defensing purpose and send location and messages to the emergency contacts. The whole process will be held in Arduino Microcontroller.The digital switch incorporates with

the controlling unit. Whenever the user presses the digital switch, the emergency message will be passed to the server unit via GSM SIM 800A module. By implementing the proposed system, the physical harassment on the women will be reduced.

3.ARDUINO BASED SECURITY SYSTEM FOR WOMEN: Nowadays women are facing many problems like rape, molestation, kidnapping etc. This uniquely designed system will help to reduce crime rates against women. It has been prioritized to give security to women especially to the women in urban areas as they can face problems while travelling the system is not so expensive thus many women can benefit themselves.

4. ONE TOUCH ALARM FOR WOMEN'S SAFETY USING ARDUINO: In our country, it has rule and financial betterment, but still there are many abuse against women. These activities can be terminated with the beneficence of mentioned product. This device is used for defense system, especially designed for women in hardship. Method/Analysis: The hardware device used for this is ARM controller. It is the most productive system and it use up very less power. Application / Improvement: Above mentioned ARM controller is used for tracking mechanism. Tracking mechanism which is called GPS is connected to ARM controller. The capacitive sensor need to be pressed for fraction milliseconds to alert locate, and can send emergency message to the emergency contacts with intent location and the buzzer will alert to nearby people for help, then the tear gas will be released after the touching sensor is touched .Thus the victims can have enough time to escape from stranger using our application.

5. SMART SOLUTION FOR WOMEN SAFETY USING IOT: Now-a-days women are facing many problems based on their security. The application which is proposed has access to track location and will send messages to the nearby police stations and the scanned phone numbers. This application is not only used for cases like rapes and any perverts teasing girls but this also helps them from any bad condition or any health problem like fainting suddenly. GPS is to track the location of the victim and to send messages, the location of the victim to the nearby police station and the phone numbers of the relatives of the victim. This application helps women to overcome their fear in going out and do things what they like to do.

Proposed System :

Proposed system introduces measurement of women health parameters using electronic sensors. If we connect an electronic sensor to body it will sense the health parameter and sends it to the doctor to remote location. This system is also used for security of women.GPS system which has introduce area data and after that the Arduino controller permits to send the Alert Message with the location of the women to the saved predefined number.After system gets activate, it uses a GSM module and WI-FI to track the location information of the user and send that location information as a message via SMS and post it on Social Application. Simultaneously, an emergency

signal is sent to people who are selected by the mobile user. This system gets connected to the satellite through GPS when activated. Then the location is transferred through the GSM. OBJECTIVES: 1)In this project, an attempt is made through the usage of GPS technologies to detect and track the position of the Mankind specially women's, Child's and those person they are in trouble.2)In this project, real time implementation of hybrid personal tracking system for anomaly detection is proposed. For future days demand of personal tracking system is increases. Using the advancement in the current technology, it becomes a favorable solution to meet the above requirement.3)Initially, the position of the target is tracked by the authorized care taker using GPS technology. 4)The proposed hybrid tracking system is implemented in real-time using a customized embedded device.Esp32 cam is capturing the image of the victim person.

II. REQUIREMENT SPECIFICATIONS

Software Requirements:

1. Arduino IDE
2. Embedded C
3. Blynk

Arduino IDE: The Arduino integrated development environment (IDE) (figure 4.4.1) is a cross-platform application for Windows, macOS, Linux that is written in the programming language Java. It is used to write and upload programs to Arduino compatible boards, but also, with the help of 3rd party cores, other vendor development boards. The Arduino IDE supports the languages C and C++ using special rules of code structuring. It is an official Arduino software, making code compilation too easy that even a common person with no prior technical knowledge can get their feet wet with the learning process. The main code, also known as a sketch, created on the IDE platform will ultimately generate a Hex File which is then transferred and uploaded in the controller on the board. The main code, also known as a sketch, created on the IDE platform will ultimately generate a Hex File which is then transferred and uploaded in the controller on the board.The IDE environment is mainly distributed on three sections:

- Menu Bar
- Output Pane
- Text editor

Embedded C: An extension to C programming language that provides support for developing efficient programs for embedded devices. It is not a part of the C language. C is the most widely used programming for embedded processors/controllers. Assembly is also used but mainly to implement those portions of the code where very high timing accuracy, code size efficiency, etc. are prime requirements.Arduino IDE (Integrated development Environment) is fully developed into functionality of full of libraries, as long as programming the Arduino UNO in

Embedded C language is possible because Arduino IDE can compile both Arduino code as well as AVR standard code.When designing software for a smaller embedded system with the 8051, it is very common place to develop the entire product using assembly code. With many projects, this is a feasible approach since the amount of code that must be generated is typically less than 8 kilobytes and is relatively simple in nature. If a hardware engineer is tasked with designing both the hardware and the software, he or she will frequently be tempted to write the software in assembly language.The trouble with projects done with assembly code can is that they can be difficult to read and maintain, especially if they are not well commented. Additionally, the amount of code reusable from a typical assembly language project is usually very low. Use of a higher-level language like C can directly address these issues. A program written in C is easier to read than an assembly program.Since a C program possesses greater structure, it is easier to understand and maintain. Because of its modularity, a C program can better lend itself to reuse of code from project to project. The division of code into functions will force better structure of the software and lead to functions that can be taken from one project and used in another, thus reducing overall development time. A high order language such as C allows a developer to write code, which resembles a human's thought process more closely than does the equivalent assembly code.The developer can focus more time on designing the algorithms of the system rather than having to concentrate on their individual implementation. This will greatly reduce development time and lower debugging time since the code is more understandable.By using a language like C, the programmer does not have to be intimately familiar with the architecture of the processor. This means that someone new to a given processor can get a project up and running quicker, since the internals and organization of the target processor do not have to be learned. Additionally, code developed in C will be more portable to other systems than code developed in assembly. Many target processors have C compilers available, which support ANSI C.All of this is not to say that assembly language does not have its place. In fact, many embedded systems (particularly real time systems) have a combination of C and assembly code. For time critical operations, assembly code is frequently the only way to go. One of the great things about the C language is that it allows you to perform low-level manipulations of the hardware if need be, yet provides you the functionality and abstraction of a higher order language.

Blynk: Was designed for the Internet of Things. It can control hardware remotely, it can display sensor data, it can store data, visualize it and do many other cool things.There are three major components in the platform: Blynk App - allows to you create amazing interfaces for your projects using various widgets we provide. Blynk Server -

responsible for all the communications between the smartphone and hardware. You can use our Blynk Cloud or run your private Blynk server locally. It's open-source, could easily handle thousands of devices and can even be launched on a Raspberry Pi. Blynk Libraries - for all the popular hardware platforms - enable communication with the server and process all the incoming and outcoming commands.

Now imagine: every time you press a Button in the Blynk app, the message travels to the Blynk Cloud, where it magically finds its way to your hardware. It works the same in the opposite direction and everything happens in a blynk of an eye.
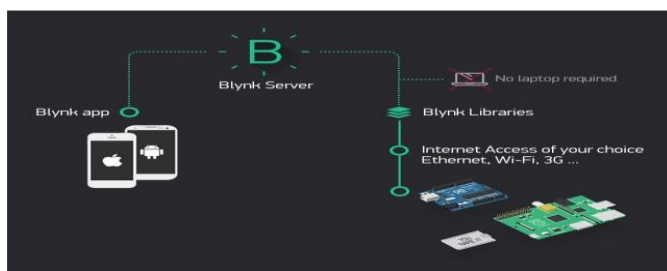

Fig.1. Blynk operation process

Hardware Requirements:

1. Arduino uno
2. LCD-16*2
3. Pulse Sensor
4. Temperature Sensor
5. Fingerprint Sensor
6. Wifi module
7. Power Supply
8. Alarm
9. Relay
10. Shock Generator
11. Esp32 Cam

Arduino Uno: Arduino/GenuinoUno is a microcontroller board based on theATmega328P. It has 14 digital input/output pins (of which 6 can be used as PWM outputs), 6 analog inputs, a 16 MHz quartz crystal, a USB connection, a power jack, an ICSP header and a reset button. It contains everything needed
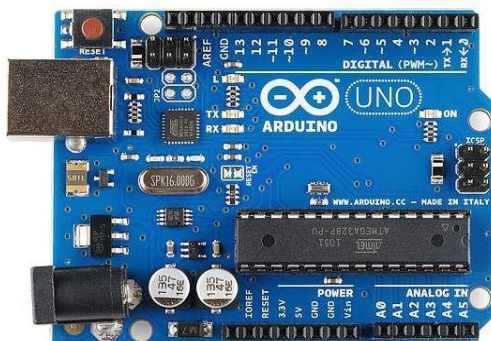

Fig.2. Arduino Uno

microcontroller; simply connect it to a computer with a USB cable or power it with an AC-to-DC adapter or battery to get started. "Uno" means one in Italian and was chosen to mark the release of Arduino Software (IDE) 1.0. The Uno board and version 1.0 of Arduino Software (IDE) were the reference versions of Arduino , now evolved to newer releases. The Uno board is the first in a series of USB Arduino boards, and the reference model for the Arduino platform; for an extensive list of current, past or outdated boards see the Arduino index of boards.

Arduino Programming: The Arduino /GenuinoUno can be programmed with the (Arduino Software (IDE)).Select "Arduino/GenuinoUno from the Tools>Board menu (according to the microcontroller on your board). The ATmega328 on the Arduino/GenuinoUno comes preprogrammed with a boot loader that allows us to upload new code to it without the use of an external hardware programmer. It communicates using the original STK500 protocol (reference ,C header files). We can also bypass the boot loader and program the microcontroller through the ICSP (In-Circuit Serial Programming) header using Arduino ISP or similar. The ATmega16U2/8U2 is loaded with a DFU boot loader, which can be activated by:

On Rev1 boards: connecting the solder jumper on the back of the board (near the map of Italy) and then reusing the8U2.

On Rev2 or later boards: there is a resistor that pulling the 8U2/16U2 HWB line to ground, making it easier to put into DFU mode.

Power: The Arduino/GenuinoUno board can be powered via the USB connection or with an external power supply. The power source is selected automatically.External (non-USB) power can come either from an AC-to-DC adapter (wall-wart) or battery. The adapter can be connected by plugging a 2.1mm center-positive plug into the board's power jack. Leads from a battery can be inserted in the GND and VIN pin headers of the POWER connector.The board can operate on an external supply from 6 to 20 volts. If supplied with less than7V, however, the 5V pin may supply less than five volts and the board may become unstable. If using more than 12V, the voltage regulator may over heat and damage the board. The recommended range is 7 to 12volts.The power pins are as follows:

- VIN. The input voltage to the Arduino/ Genuino board when it's using an external power source (as opposed to 5 volts from the USB connection or other regulated power source). One can supply voltage through this pin, or, if supplying voltage via the power jack, access it through this pin.
- 5V.This pin outputs a regulated 5Vfrom the regulator on the board. The board can be supplied with power either from the DC power jack (7 - 12V), the USB connector (5V), or the VIN pin of the board (7-12V). Supplying voltage via the 5V or 3.3V pins bypasses the regulator, and can damage your board. We don't advise it.
- GND. Ground pins,

Pulse Rate Sensor: Pulse Sensor is a well-designed plug-and-play heart-rate sensor for Arduino. It can be used by students, artists, athletes, makers, and game & mobile developers who want to easily incorporate live heart rate data into their projects. The sensor clips onto a fingertip or earlobe and plugs right into Arduino.

How Pulse Sensor Works:The working of the **Pulse/Heart beat sensor** is very simple. The sensor has two sides, on one side the LED is placed along with an ambient light sensor and on the other side we have some circuitry. This circuitry is responsible for the amplification and noise cancellation work. The LED on the front side of the sensor is placed over a vein in our human body. This can either be your Finger tip or you ear tips, but it should be placed directly on top of a vein.

Now the LED emits light which will fall on the vein directly. The veins will have blood flow inside them only when the heart is pumping, so if we monitor the flow of blood we can monitor the heart beats as well. If the flow of blood is detected then the ambient light sensor will pick up more light since they will be reflect ted by the blood, this minor change in received light is analysed over time to determine our heart beats.

Fig.3. Pulse Rate Sensor

Temperature Sensor:

Fig.4. Temperature Sensor

The LM35 series are precision integrated-circuit temperature sensors, whose output voltage is linearly proportional to the Celsius (Centigrade) temperature. The LM35 does not require any external calibration or trimming to provide typical

accuracies. The LM35 series are precision integrated-circuit temperature sensors, whose output voltage is linearly proportional to the Celsius (Centigrade) temperature. The LM35 thus has an advantage over linear temperature sensors calibrated in° Kelvin, as the user is not required to subtract a large constant voltage from its output to obtain convenient Centigrade scaling. The LM35 does not require any external calibration or trimming to provide typical accuracies of $\pm 1/4°C$ at room temperature and $\pm 3/4°C$ over a full −55 to +150°C temperature range. Low cost is assured by trimming and calibration at the wafer level. The LM35's low output impedance, linear output, and precise inherent calibration make interfacing to readout or control circuitry especially easy. It can be used with single power supplies, or with plus and minus supplies. As it draws only 60 μA from its supply, it has very low self-heating, less than 0.1°C in still air. The LM35 is rated to operate over a −55° to +150°C temperature range, while the LM35C is rated for a −40° to +110°C range (−10° with improved accuracy). The LM35 series is available packaged in hermetic TO-46 transistor packages, while theLM35C, LM35CA, and LM35D are also available in the plastic TO-92 transistor package. The LM35D is also available in an 8-lead surface mount small outline package and a plastic TO-220 package.
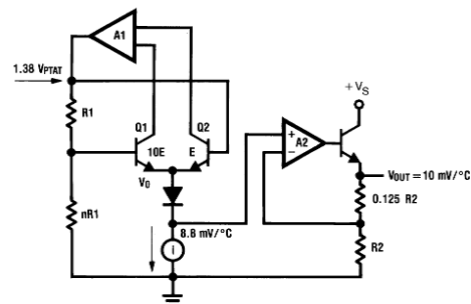

Fig.5.Circuit Diagram of Temperature Sensor
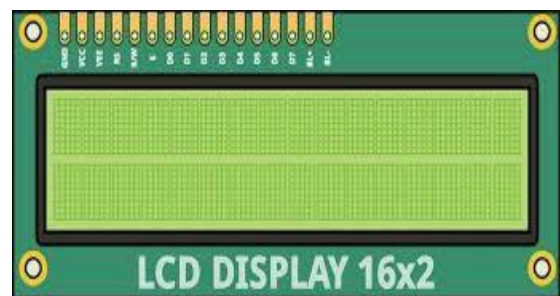
LCD Display:

Fig.6.LCD Display

A **liquid-crystal display** (**LCD**) is a flat-panel display or other electronically modulated optical device that uses the light-modulating properties of liquid crystals. Liquid crystals do not emit light directly, instead using a backlight or reflector to produce images in color or monochrome. LCDs are available to display arbitrary images (as in a general-purpose computer display) or fixed images with low information content, which

can be displayed or hidden, such as preset words, digits, and 7-segment displays, as in a digital clock. They use the same basic technology, except that arbitrary images are made up of a large number of small pixels, while other displays have larger elements.LCD is used in wide range application including computer monitors, televisions, instrument panels, aircraft cockpit displays, and indoor and outdoor signage. Small LCD screens are common in portable consumer devices such as digital cameras, watches, calculators, and mobile telephones, including smart phones. LCD screens are also used on consumer electronics products such as DVD players, video game devices and clocks. LCD screens have replaced heavy, bulky cathode ray tube (CRT) displays in nearly all applications. LCD screens are available in a wider range of screen sizes than CRT and plasma displays, with LCD screens available in sizes ranging from tiny digital watches to huge, big- screen television sets.

Since LCD screens do not use phosphors, they do not suffer image burn-in when a static image is displayed on a screen for a long time (e.g., the table frame for an aircraft schedule on an indoor sign). LCDs are, however, susceptible to image persistence.

Relay:

A relay is an electrically operated switch. Current flowing through the coil of the relay creates a magnetic field which attracts a lever and changes the switch contacts. The coil current can be on or off so relays have two switch positions and they are double throw (changeover) switches. The relay's switch connections are usually labeled COM(POLE), NC and NO. In order to trigger the laser we use driver relay.

Fig.7. Relay

Many relays use an electromagnet to mechanically operate a switch, but other operating principles are also used, such as solid-state relays. Relays are used where it is necessary to control a circuit by a separate low-power signal, or where several circuits must be controlled by one signal. The first relays were used in long distance telegraph circuits as amplifiers: they repeated the signal coming in from one circuit and re-transmitted it on another circuit. Relays were used extensively in telephone exchanges and early computers to perform logical operations.

Buzzer: A **buzzer** is a small yet efficient component to add sound features to our project/system. It is very small and compact 2-pin structure hence can be easily used on

breadbroad, Perf Board and even on PCBs which makes this a widely used component in most electronic applications

Fig.8. Buzzer

There are two types are buzzers that are commonly available. The one shown here is a simple buzzer which when powered will make a Continuous Beeeeeeppp.... sound, the other type is called a readymade buzzer which will look bulkier than this and will produce a Beep. Beep. Beep. Sound due to the internal oscillating circuit present inside it. But, the one shown here is most widely used because it can be customised with help of other circuits to fit easily in our application.This buzzer can be used by simply powering it using a DC power supply ranging from 4V to 9V. A simple 9V battery can also be used, but it is recommended to use a regulated +5V or +6V DC supply. The buzzer is normally associated with a switching circuit to turn ON or turn OFF the buzzer at required time and require interval.
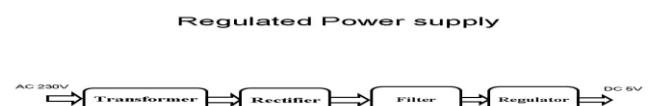
Regulated Power Supply:

Fig.9.Regulated Power Supply

A transformer is a device that transfers electrical energy from one circuit to another through inductively coupled conductors without changing its frequency. A varying current in the first or primary winding creates a varying magnetic flux in the transformer's core, and thus a varying magnetic field through the secondary winding. This varying magnetic field induces a varying electromotive force (EMF) or "voltage" in the secondary winding. This effect is called mutual induction. If a load is connected to the secondary, an electric current will flow in the secondary winding and electrical energy will be transferred from the primary circuit through the transformer to the load. This field is made up from lines of force and has the same shape as a bar magnet. If the current is increased, the lines of force move outwards from the coil. If the current is reduced, the lines of force move inwards. If another coil is placed adjacent to the first coil then, as the field moves out or in, the

moving lines of force will "cut" the turns of the second coil. As it does this, a voltage is induced in the second coil. With the 50 Hz AC mains supply, this will happen 50 times a second. This is called MUTUAL INDUCTION and forms the basis of the transformer.

Rectifier:A rectifier is an electrical device that converts alternating current (AC) to direct current (DC), a process known as rectification. Rectifiers have many uses including as components of power supplies and as detectors of radio signals. Rectifiers may be made of solid-state diodes, vacuum tube diodes, mercury arc valves, and other components. A device that it can perform the opposite function (converting DC to AC) is known as an inverter. When only one diode is used to rectify AC (by blocking the negative or positive portion of the waveform), the difference between the term diode and the term rectifier is merely one of usage, i.e., the term rectifier describes a diode that is being used to convert AC to DC. Almost all rectifiers comprise a number of diodes in a specific arrangement for more efficiently converting AC to DC than is possible with only one diode. Before the development of silicon semiconductor rectifiers, vacuum tube diodes and copper (I) oxide or selenium rectifier stacks were used.

Filter:The process of converting a pulsating direct current to a pure direct current using filters is called as filtration. Electronic filters are electronic circuits, which perform signal-processingfunctions, specifically to remove unwanted frequency components from the signal, to enhance wanted ones.

Regulator:A voltage regulator (also called a ‗regulator') with only three terminals appears to be a simple device, but it is in fact a very complex integrated circuit. It converts a varying input voltage into a constant ‗regulated 'output voltage. Voltage Regulators are available in a variety of outputs like 5V, 6V, 9V, 12V and 15V. The LM78XX series of voltage regulators are designed for positive input. For applications requiring negative input, the LM79XX series is used. Using a pair of ‗voltage-divider' resistors can increase the output voltage of a regulator circuit. It is not possible to obtain a voltage lower than the stated rating. You cannot use a 12V regulator to make a 5V power supply. Voltage regulators are very robust. These can withstand over-current draw due to short circuits and also over-heating. In both cases, the regulator will cut off before any damage occurs. The only way to destroy a regulator is to apply reverse voltage to its input. Reverse polarity destroys the regulator almost instant.

III. IMPLEMENTATION

In this project, we utilize the GPS (Global Positioning system) module, Arduino, Battery, Two emergency switches, Wi-Fi router and pulse rate sensor. Battery are utilize for the power supply its give the 5V supply. Emergency switch or the panic switches are the key parameter of this system. The GPS module

is the transceiver device it is capable to receiving information from GPS satellite and then it calculate geographical position and passed the data through Arduino. Arduino store the data and it receive the input and it also receive the signal from the panic switches 1 and 2. The Arduino stores information from different parameter which should be observed. The Wi-Fi router \ Hotspot are utilized for the internet.

Arduino store the information gathered by the GPS and this data pass to the Blynk cloud. We store the information on cloud and the cloud sends the data to App.And one more motive of this system is the pulse rate sensor utilize in our system. This sensor gathered the pulse rate, if the pulse rate is larger than the mark so the chances of heart attack is increases so to save this people from heart attack we make this system. If the rate is so high at that time send location on the ambulance and the relatives for those needs we make this system.
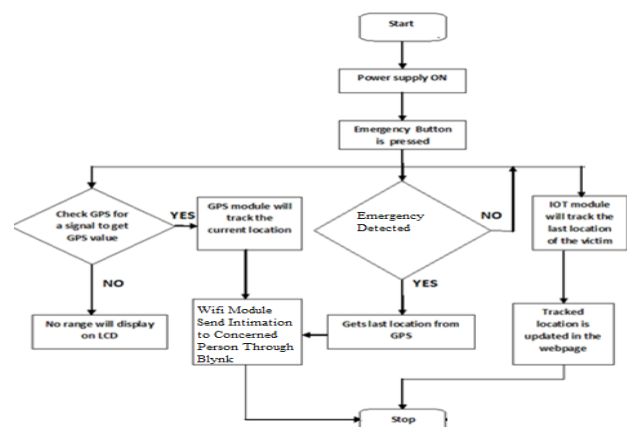

Fig.10. Flow chart of the application

IV. CONCLUSION

The project grants designing about the women faced the lot of critical situation at present days and will assist to clarify them scientifically with compressed kit and concept. Making use of wrist band and spectacles, the mechanism like tear gas release, loud the messages with the location. From the above mentioned product can run over the suffering of every woman in the world about her assurance and security. The project grants designing about the women faced the lot of critical situation at present days and will assist to clarify them scientifically with compressed kit and concept. Making use of wrist band and spectacles, the mechanism like tear gas release, loud the messages with the location. From the above mentioned product can run over the suffering of every woman in the world about her assurance and security.

V. REFERENCES

[1] S. Ruiz, L. Negredo, A. Ruiz, C. García-Moreno, Ó. Herrero, M. Yela, et al., "Violencia de género", Programa de Intervención para Agresores, Ministry of Interior of Spain, May. 2010.

[2] E. Aarts and B. de Ruyter, "New research perspectives on Ambient Intelligence", Journal of Ambient Intelligence and Smart Environments, vol. 1, n. 1, pp. 5–14, Jan. 2009.

[3] J. Bajo, J. F. de Paz, Y. de Paz, and J. M. Corchado, "Integrating case- based planning and RPTW neural networks to construct an intelligent environment for health care", Expert Syst. Appl., vol. 36, n. 3, pp. 5844–5858, Apr. 2009.

[4] D. I. Tapia, A. Abraham, J. M. Corchado, and R. S. Alonso, "Agents and ambient intelligence: case studies", Journal of Ambient Intelligence and Humanized Computing, vol. 1, n. 2, pp. 85–93, Jun. 2010.

[5] BI Incorporated, "One-piece active GPS offender tracking: BI ExacuTrack® One". Available: http://bi.com/exacutrackone [Accessed 9 September 2011].

[6] iSECUREtrac, "One-piece GPS Systems from iSECUREtrac". Available: http://www.isecuretrac.com/Services.aspx?p=GPS#onepiece [Accessed 9 September 2011].

[7] G.M.Djuknic and R. E. Richton, "Geolocation and Assisted GPS", Computer, vol. 34, n.2, pp. 123–125, 2001.

[8] Yieh-Ran Haung and Yi-Bing Lin, "A bandwidth-on-demand strategy for GPRS", IEEE Transactions on Wireless Communications, vol. 4, n.4, pp. 1394–1399, Jul. 2005.

[9] P. Baronti, P. Pillai, V. W. C. Chook, S. Chessa, A. Gotta, and Y. F. Hu, "Wireless sensor networks: A survey on the state of the art and the 802.15.4 and ZigBee standards", Comput. Commun., vol. 30, n. 7, pp. 1655–1695, 2007.

[10] A. Küpper, Location-Based Services: Fundamentals and Operation, 1st ed. Wiley, 2005.

[11] S.Anynye and Y. Rajala, "System and Method for Tracking, Monitoring, Collecting, Reporting and Communicating with the Movement of Individuals", U.S. Patent Application, 20100222073, 09- Feb-2010.

[12] Nebusens "n-Core®: A faster and easier way to create Wireless Sensor Networks", 2011. Available: http://www.n-core.info [Accessed 2 January 2012].

[13] D. Ibrahim, "Design of a GPS data logger device with street-level map interface", Advances in Engineering Software, vol. 41, n. 6, pp. 859–864, Jun. 2010.