



## SAFETY JACKET FOR WORKING WOMEN

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### Abstract

In these day's global girls are less at ease and feature many issues regarding their security reason. Girls' protection consequently, has come to be a totally critical problem because of rising crimes against women nowadays. Women face quite a few demanding situations every day and there may be a want to construct a gadget to ensure girls' protection. Despite the fact that there are many present structures for protection cause need of superior smart protection machine is increasing daily. So as to triumph over such troubles clever protection device for ladies is implemented. This device describes approximately safe and comfortable electronic gadget for ladies who incorporates of Arduino Nano and sensors consisting of temperature sensor, accelerometer, and pulse fee sensor. A buzzer, GSM and GPS are also used in this project. When the lady is in risk, the tool senses the frame parameters like heartbeat price, trade in temperature, and the bending movement of the victim by using accelerometer. When the sensor crosses the threshold restrict the device sends the vicinity of the sufferer the use of the GPS module. By means of using the GSM module, the victim's location is sent to the registered contact number.

### INTRODUCTION

In international scenario, the prime question in every ladies mind is set her safety and the harassment problems. The only notion haunting every girl is when they'll be capable of move freely on the streets even in atypical hours without demanding about their protection. This challenge indicates a new technology to defend girls. This mission specializes in a security for girls in order that they may in no way sense helpless. The system includes diverse modules together with GSM, GPS, memory card, shock circuit, buzzer, digital camera, Raspberry pi-three module. On this undertaking we are using wireless era for safety purpose. An electronic jacket for girl's safety means that permit users to protect whilst touring extraordinary hours or when they feel helpless. This venture is based totally on ladies' protection as its miles mentioned that every day there's many cases approximately women harassment. Even though an Android based totally application on ladies protection is already out in the marketplace however for non-android users, I idea a concept for developing a undertaking primarily based on ladies security the usage of Raspberry pi module. Raspberry pi module gets the indicators from GPS device which has present place records after which the Raspberry pi controller permits the GSM gadget to ship the Alert Message to the 3 predefined numbers additionally in our jacket shock circuit is used to injure the attacker for self- protection. A camera used for the capturing picture of an attacker and outside memory card is used for the shooting picture is store in this card.



Ladies are the number one caregivers in nowadays world, but the predominant subject on each female's thoughts is her safety and freedom from harassment. What every woman want is the capacity to journey wherever she desires, even at ordinary hours, without fear of being confused. Ladies are assaulted, pressured, or even kidnapped in public regions and on public transportation these days. Women are unable to protect and perform clever phones in an emergency. Additionally, she cannot spark off the alert function when they're in a risky state of affairs and can't straight away skip and send their place to the police and own family participants. Fig. 1. During history, women's roles inside the global were essential to the stableness, development, and lengthy-term improvement of our international locations. Girls make up forty three percentage of the arena's pressure, and this determines is growing to 70 percent in a few international locations. In any own family, the girl makes the general public selections and plans. Female is precise for a selection of reasons. They are the arena's maximum touchy.

### LITERATURE SURVEY

Electronic jacket for ladies safety: ladies safety utility the usage of android mobile. On this paper machine can show actual region to loved ones, parents, buddies and music on every occasion c programming language. Emergency panic button using microcontroller. In this paper panic button is used for safety at the same time as emergency situation takes place [1].AVR microcontroller primarily based wearable jacket for women protection .On this paper unified aggregate of wearable jacket and cell generation for protection of girls inside the society. This gadget allows to alert own family individuals and people closest to the sufferer by using the use of buzzer, GPS,GSM module [2]. Multi-functional intelligent protection system for women security on this paper the authors have reviewed of diverse existing structures on girl's safety. The GPS module tracks the longitude and latitude to hint an genuine location of a user and sends the pre-saved emergency message such as vicinity to the registered contact numbers. The Audio Recording module begins the recording of the communiqué for 5 mins and stored as evidences. The message goes in queue if community problem and send when network receives to be had [3]. Cellular primarily based ladies protection software. On this paper a few app created to understand whether or not a girl is secure or now not? This suggests the prevailing state of affairs of the girl with the aid of touching the choice, which additionally shows the place of the endangered female they gave a phone call, video forwarding, faux calls, and place of the man or woman, first-useful resource details, and application having the instructions that is the way to use the application [4].

### TYPES OF ELECTRONIC JACKET FOR WOMEN SAFETY

KSE-100 index is an index of 100 companies selected from 580 companies on the basis of sector leading and market capitalization. It represents almost 80% weight of the total market capitalization of KSE. It reflects different sector company's performance and productivity. It is the performance indicator or benchmark of all listed companies of KSE. So it can be regarded as universe of the study. Non-financial firms listed at KSE-100 Index (74 companies according to the page of KSE visited on 20.5.2015) are treated as universe of the study and the study have selected sample from these companies.

The study comprised of non-financial companies listed at KSE-100 Index and 30 actively traded companies are selected on the bases of market capitalization. And 2015 is taken as base year for KSE-100 index.

### 3.1 The Raspberry Pi 3 Model B+

It is the contemporary product in the Raspberry Pi 3 range, boasting a 64-bit quad core processor going for walks at 1.4GHz, dual-band 2.4GHz and 5GHz wireless LAN, Bluetooth 4.2/BLE, quicker Ethernet, and PoE capability through a separate PoE HAT. The twin-band wireless LAN comes with modular compliance certification, permitting the board to be designed into end merchandise with extensively reduced wireless AN compliance checking out, enhancing each fee and time to marketplace. The Raspberry Pi 3 model B+ keeps the identical mechanical footprint as each the Raspberry Pi 2 model B and the Raspberry Pi three model B.



Fig.1 raspberry pi 3 model b+

### SYSTEM BLOCK DIAGRAM

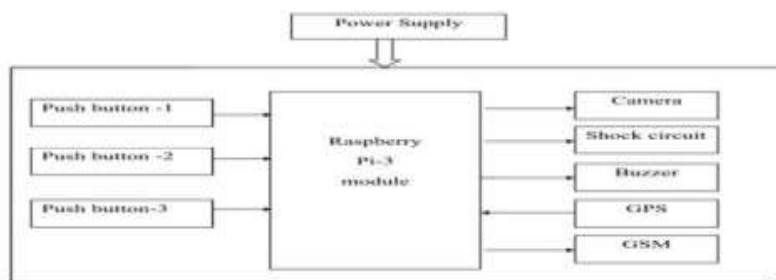


Fig2. system block diagram

### WORKING

Raspberry pi module is principal part. This module has total 40 pins. In circuit the 3 buttons used. Out of that three buttons first button is used for circuit on/off. 2d bottom is used for on GPS, GSM & buzzer. 1/3 button is used for surprise circuit. As soon as first button is pressed that point circuit is on. While 2d button is pressed that time GSM is on & GPS is likewise on. It sends region to predefined numbers. We save three numbers that three numbers are police station, neighbor's, and parents. Vicinity is ship to that three numbers in the shape of latitude

and longitude additionally the usage of GSM alert message MY lifestyles IS IN hazard scenario. At that still buzzer can be on .Whilst third button is pressed that point surprise circuit will be on. While attacker attack to girls that point shock circuit is used to injure attacker for self defence. At time digital camera can be on for shooting picture and that shooting photo is saved on reminiscence card. Therefore its miles helpful for police for searching attacker. Today's lifestyles this system is most beneficial. Intel board has many blessings compared to arduino board. The under desk 1 indicates the comparison between Arduino modules (Uno, Nano)and Galileo board.

### **IOT BASED**



Fig3.IOT based working

The main running is primarily based on UART (normal Asynchronous Receiver & Transmitter) serial communication. Right here facts is transmitted asynchronously. UART is a serial conversation device & it sends and receives information in parallel manner but internal it converts into serial. UART acts as a bridge among serial communication port and processor. On The transmitter facet, this UART converts parallel to serial information, at the same time as on the receiver facet, it converts serial to parallel facts. Popular Asynchronous Receiver and Transmitter transfer the information at speed which may be very excessive. It's far effortlessly configurable than different gadgets. UART does no longer comprise clock sign to validate the date ship by transmitter and obtained by receiver. UART contains two shift registers which includes Transmitter Shift register and Receiver Shift sign in.

### **ARCHITECTURAL MODEL**

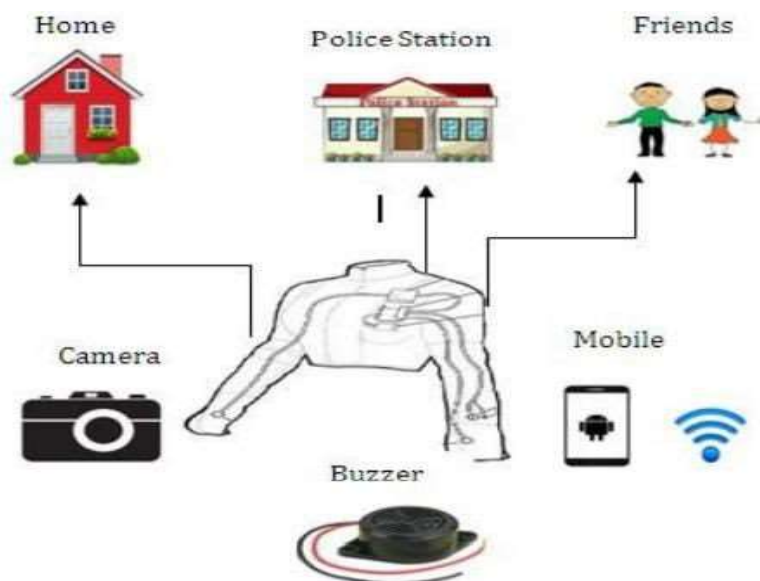


Fig4. Architectural Model

The electricity supply unit has to offer a regulated d c deliver to all sections of the gadget. As it is critical to function the tool on batteries due to the fact that it is used with the individual while shifting. It includes rechargeable batteries, filter out capacitors and voltage regulators. Cutting-edge private computers universally use switched –mode energy substances. A few strength components have a guide transfer for deciding on input voltage, while others automatically adapt to the mains voltage. This device makes use of a LCD display of cellular for displaying numerous activates and status data of the system. It is also used display the identify messages and different messages whilst communicating with the system. The microcontroller sends the alerts to liquid crystal display module through its port pins. Smart camera module 5MP 2 cameras are used in this machine. We're attaching a digital on a jacket so that you can seize the image of the attacker and a stay video is sent to the emergency contacts whilst the link is activated. For you to be easy for police to go looking the attacker with the minimum time. GPS (international Positioning device) era is used to discover the vicinity of any object or automobile to screen a child continuously using satellite signals. Three satellites TV for pc alerts are necessary to find the receiver in 3D area and fourth satellite is used for time accuracy. GPS will supply the statistics of parameters like longitude, latitude and mindset. With the assist of those parameters you'll effortlessly find the placement of any object. On this GPS era, the verbal exchange takes location between GPS transceiver and GPS satellite TV for pc. GSM (global device for cell communications) is the era that underpins most of the arena's cell cellphone networks. The GSM platform is a extremely a hit Wi-Fi generation and an remarkable story of global achievement and cooperation. GSM has come to be the worldwide success end up the world's quickest developing communications technology of all time and the main global cellular standard, spanning 218 nations. GSM is an open, virtual cellular generation used for transmitting mobile voice and information offerings. GSM operates within the 900MHz and 1.8GHz bands GSM helps records switch speeds of as much as nine.6 kbps,



permitting the transmission of basic records services such as SMS. The alarm is designed to assist in alerting somebody in case of emergency situations.

### CONCLUSION

The primary aim of ladies safety jacket is to make certain that each lady in the society feels safe and comfy whilst touring at night time, on lonely roads, while going to colleges, faculties, offices, and many others. Imposing actual time software and an upgraded device. With similarly research and innovation, it may be used to protect the ladies in important situations, as ladies are dealing with many troubles concerning their protection. This software is useful to keep away from cases like rapes and any perverts teasing women, women being stalked or burdened. As a consequence we conclude that we had been capable of review one of a kind strategies that have been used over years concerning ladies protection. On the idea of literature evaluate carried out we proposed a machine so as to act as a protection gadget for the girls and might help her to give the information of her whereabouts to the humans around while in risk. In nowadays's situation, each woman faces an problem concerning her protection due to hastily growing harassment in opposition to women. This machine will help women to overcome their worry in going out and pursue their careers and work.

### References

- [1] IoT based Smart Foot Device for Women Safety-Shamna Shajahan, Kavya Shibu, Nores Mathew, Parvathy R, Soniya K S, Patil International Journal of Research in Engineering and Technology(IJRET) e-ISSN: 2395-0056 | p-ISSN:2395-0072Volume: 06Special Issue:05|May-2019.
- [2] Study on Smart Security Technology for Women based on IoT-J.K.Thavil, V.P.Durdhawale, P.S.Elake International Journal of Research in Engineering and Technology(IJRET) e-ISSN: 2395-0056 | p-ISSN: 2395- 0072Volume:04Special Issue: 02|Feb-2017.
- [3] Electronic Jacket For Women Safety- Swapnali N. Gadhawe, Saloni D. Kale, Sonali N. Shinde Prof. Amol C. Bhosale Elake International Journal of Research in Engineering and Technology(IJRET) e-ISSN: 2395-0056 | p-ISSN: 2395-0072 Volume: 04Special Issue: 05|May-2017.
- [4] AVR Microcontroller Based Wearable Jacket for Women Safety- Daniel Clement, Kush Trivedi, Saloni Agarwal, Shikha Singh International Journal of Research in Engineering and Technology(IJRET) e-ISSN: 2395-0056 | p-ISSN:2395-0072 Volume:03Special Issue: 05|May-2016.
- [5] Women Security Gadget-Samiksha Dhote, Karan Chavan, Pushkar Desale, Prof. Ms. P.M.Chavan Singh International Journal of Research in Engineering and Technology(IJRET) e-ISSN: 2395-0056 | p-ISSN: 2395- 0072Volume:03Special Issue: 03|March-2016.
- [6] Self defence system for women with location tracking and SMS alerting through GSM network-B. Vijaylaxmi, Renuka. S, Pooja Chennur, Sharagowda Patil International Journal of Research in Engineering and Technology(IJRET)e-ISSN:2319-1163 |p-ISSN:2321-7308 Volume:04 Special Issue:05 NCATECS-2015 |May-2015.



- [7] G.Masario, M. Torchiano and M. Violante, An in-vehicle infotainment software architecture Based on Google Android, IEEE International Symposium on Industrial Embedded Systems 2009, 8-10 July 2009, pp.257-260