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Design and Development of E-Jacket for Women Safety

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ABSTRACT

In global scenario, the prime question in every girl's mind is about her safety and the harassment issues. The only thought haunting every girl is when they will be able to move freely on the streets even in odd hours without worrying about their security. This project suggests a new technology to protect women. This project focuses on a security for women so that they will never feel helpless. The system consists of various modules such as GSM, GPS, memory card, shock circuit, buzzer, camera, Raspberry pi-3 module. Today there is many cases which are happening about women. It was high time where women needed a change. This project is based on women security where women feel protected. This paper describes about safety electronic system for women, built in public transport vehicles such as cars, buses and auto-rickshaws as nowadays women are being molested, kidnapped and harassed by the drivers. In each field there is a special impact of women Like sports, dance, education, business, in politics also. Women are leading in each field. Are the girls in India are really safe? Always we get the answer No. Hence implemented electronic system is fitted in the jacket which has GPS, GSM, Camera, Shock circuit, Buzzer, memory card which are interfaced with Raspberry pi -3 board to control all of the above.

Keywords - Gsm, Gps, Memory Card, Buzzer, Raspberry Pi-3 Module

I. INTRODUCTION

In global scenario, the prime question in every girls mind is about her safety and the harassment issues. The only thought haunting every girl is when they will be able to move freely on the streets even in odd hours without worrying about their security. This project suggests a new technology to protect women. This project focuses on a security for women so that they will never feel helpless. The system consists of various modules such as GSM, GPS, memory card, shock circuit, buzzer, camera, Raspberry pi-3 module. Today there is many cases which are happening about women. It was high time where women needed a change. This project is based on women security where women feel protected. This paper describes about safety electronic system for women, built in public transport vehicles such as cars, buses and auto-rickshaws as nowadays women are being molested, kidnapped and harassed by the drivers. In each field there is a special impact of

women Like sports, dance, education, business, in politics also. Women are leading in each field. Are the girls in India are really safe? Always we get the answer No. Hence implemented electronic system is fitted in the jacket which has GPS, GSM, Camera, Shock circuit, Buzzer, memory card which are interfaced with Raspberry pi -3 board to control all of the above.

II. OBJECTIVES

1. To design E jacket for women safety.
2. To send location of women to the authorized person through mobile appTo design spy cam, live
3. streaming also sends to authorized person.
4. To sound of buzzer also alert near-by person.

III. PART OF PROJECTS

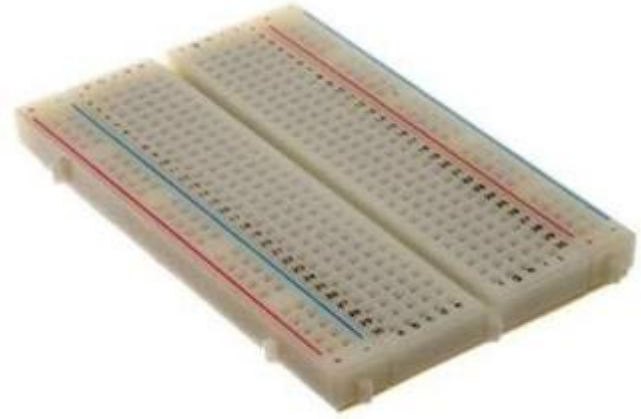
ESP82

The ESP8266 is a low-cost Wi-Fi microchip, with built-in TCP/IP networking software, and microcontroller capability, produced by Espress if Systems in Shanghai, China. The chip was popularized in the English-speaking maker community in August 2014 via the ESP- 01 module, made by a third-party manufacturer Ai-Thinker. This small module allows microcontrollers to connect to a Wi-Fi network and make simple TCP/IP connections using Hayes style commands. However, at first, there was almost no English-language documentation on the chip and the commands it accepted. The very low price and the fact that there were very few external components on the module, which suggested that it could eventually be very inexpensive in volume, attracted many hackers to explore the module, the chip, and the software on it, as well as to translate the Chinese documentation. The ESP8285 is a similar chip with a built-in 1 MiB flash memory, allowing the design of single chip devices capable of connecting via Wi-Fi. These microcontroller chips have been succeeded by the ESP32 family of devices. The ESP8266 WiFi Module is a self-contained SOC with integrated TCP/IP protocol stack that can give any microcontroller access to your WiFi network. The ESP8266 is capable of either hosting an application or offloading all Wi-Fi The ESP8266 is capable of either hosting an application or offloading all Wi-Fi networking functions from another application Consists of high intensity LEDs connected in series that will let out a flash which will make the attacker lose hi veering for few seconds, while the alarm will send out sirens to call out for help. When second switch is pressed the system will only send the location Conceptually, the receiver measures the TOAs (according to its own clock) of four satellite signals. From the TOAs and the TOTs, the receiver forms four time of flight (TOF) values, which are (given the speed of light) approximately equivalent to receiver satellite ranges plus time difference between the receiver and GPS satellites multiplied by speed of light, which are called pseudo-ranges. The receiver then computes its three-dimensional position and clock deviation from the four TOFs.

Project Board

A project board is a construction base prototyping of electronics. Originally it was literally a bread board, a polished piece of wood used for slicing bread. In the 1970s the solderless breadboard (AKA plugboard, a terminal array board) became available and nowadays the term "breadboard" is commonly used to refer to these. "Breadboard" is also a synonym for "prototype". Because the solderless breadboard does not require soldering, it is reusable. This makes it easy to use for creating temporary prototypes an experimenting with

circuit design. For to reason, solderless breadboards are also extremely popular with students and in technological education. Older breadboard types did not have this property. A stripboard (Veroboard) and similar prototyping printed circuit boards, which are used to build semipermanent soldered prototypes or one-offs, cannot easily be reused. A variety of electronic systems may be prototyped by using breadboards, from small analog and digital circuits to complete central processing units(CPUs).



GPS Module

The Global Positioning System (GPS), originally Navstar GPS, is a satellite-based radionavigation system owned by the United States government and operated by the United States Space Force. It is one of the global navigation satellite systems (GNSS) that provides geolocation and time information to a GPS receiver anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites. Obstacles such as mountains and buildings can block the relatively weak GPS signals. The GPS does nREFERENCES

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[3]. Cernea, D., Mora, S., Perez, A., Ebert, A., Kerren, A., Divitini, M., Gil de La Iglesia, D., Otero, N.: Tangible and Wearable User Interfaces for Supporting Collaboration among Emergency Workers. In: Herskovic, V., Hoppe, H.U., Jansen, M., and Ziegler, J. (eds.) Collaboration and Technology. pp. 192– 199. Springer Berlin Heidelberg, Berlin, Heidelberg (2012). ot requirethe user to transmit any data, and it operates independently of any telephonic or Internet reception, though these technologies can enhance the usefulness of the GPS positioning information. The GPS provides critical positioning capabilities to military, civil, and commercial users around the world. The United States government created the system, maintains andcontrols it, and makes it freely accessible to anyone with a GPS receiver.

Advantages:

1) Provides Safety in the critical conditions
2) Live location can also be tracked by the Authorized persons
3) System is compact and easy to carry in the Jacket
4) SpyCam gives the proper live streaming so that it can be used as the proof against the culprits

Applications:

1. Women can feel safe with the jacket on.
2. During emergencyRelatives and Police can be notified.
3. Specific location can be determined.
4. Buzzer can help to scare away the dangerous people.
5. Camera Can help to keep the evidence.

IV. CONCLUSION

The proposed system focuses on providing immediate assistance for Women who are in trouble in the critical conditions. The System is built up of Embedded System and is Light weight and easy to carry and also supports live streaming functions. The Alert system is used to notify and alert the persons locally about the emergency situation. The Future scopes can be considered in this Project to make it for public use.

V. REFERENCES

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