Electronics Jacket For Women's Safety

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ABSTRACT

In the 21st century considering the global scenario the most prime question in every girls mind is about her own safety. Recently gang rape at Kopardi is one of the great motivation to design this technology for women safety. Three Dalit men accused of the rape and murder of 15years old school girl last year at Kopardi. Ladies are facing much unethical, physical, harassment, sexual assault, kidnapping and many more even in the public areas like railway station, bus stop, footpath etc. A united nation statistical report compiled from government sources shows that more than 2,50,000 cases of rape or attempted rape were recorded annually. This technology suggested many new products to protect women considering them one of the product used may be electronic jacket for women safety. Which when activated by pressing switch tracks the location of victim through GPS send emergency message using GSM three emergency contact and nearest police control room. And also figure out the attacker by using live streaming camera.This device is an venture to all the women to deserve a safe and secure world

Keyword: *Raspberry pi B, Web Camera, SIM808, Buzzer*.

1. Introduction

The status of women in India has undergoes many changes over past few decades. Since ancient time the history of Indian women has been evenful. Although, women have acquired top position in job and society , yet they are facing unethical physical harassments and sexual assault.

According to global poll by Thomson Reuters, India is the 4th most dangerous country in world for women among G20 countries.

This paper presents a unified combination of a wearable jacket at optimum results with minimum hardware components and mobile technology, to help the victim in any kind of emergency situation.

2. Existing System

Keeping in mind the same issue of girls safety many developers came out with different innovative ideas. Few of them are as follows-

2.1 vith U app:

This is an app invented by a popular Indian crime television series 'Gumrah' on channel V. This app will be activated on pressing power button of your smartphone two times consecutively sending an alert message every 2 minutes to the contacts you feed.The message "I am in Danger. I need help. Please follow my location".

2.2 The stun gun:

This small gun provides an attacker with an electric shock.The gun is as equipment that can be carried in the handbags. When the gun is triggered the shock weakens the attacker temporarily, giving chance to escape from the situaton.

2.3 Jacket:

The design implemented is an electronic jacket for women safety. This jacket consist of three buttons .At the time when first button is pressed the system starts its working. when second button is pressed the GPS and GSM starts and after pressing third button the shock circuit is activated which provides shock to an oppressor through jacket.

3. PROPOSE SYSTEM:

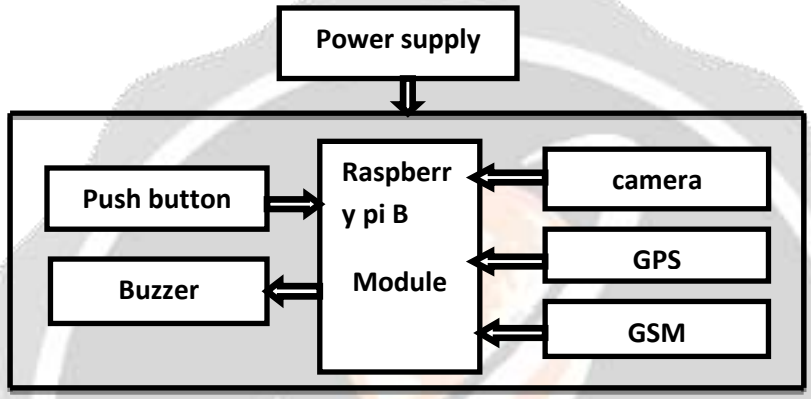

Fig.1.system block diagram

The proposed system works on Raspberry Pi B module designing a portable device which resembles a jacket with gloves. It consist of GPS ,GSM, Buzzer, camera and shock circuit. We have used a single button in this system. After pressing that button the hole system activates and deactivates at a time. When the system starts , first the raspberry pi module gets activated then starts the GPS and GSM through which it sends location and the message that the person is in danger to the predefined number. Those three predefined numbers may be of police station, friend and parents. Location is send to that three numbers in the form of latitude and longitude and also GSM alert message "MY LIFE IS IN DANGER SITUATION". At the same time buzzer will be on which will alert the nearby peoples.

Why gloves are attached to the jacket to provide shock even jacket can do the same?? When we provide shock using the jacket then our hands/palms will be open, after giving the shock to the oppressor if he touches to our hand then there is possibility that we too will get shock and with that victim our muscles will also get contract. For avoiding the same the system consist of the gloves which gives shock only to the attacker and girl escapes.

Also the camera will be on for capturing the image and the captured image is saved on memory card. Therefore it will be helpful for police to search the attacker.

3.1 SIM808:

SIM808 is integrated with high performance GSM/GPRS. The GSM/GPRS engine is a quad band GSM/GPRS module that works on frequency GSM 850Mhz, EGSM 900Mhz, DCS 1800 MHZ and PCS 1900MHZ.SIM808 features GPRS multi slot class12/class10(optional) and supports GPRS coding scheme. The GPS solution offers best in class acquisition and tracing sensitivity. With a tiny configuration 24*24*2.6mm , SIM 808 can make almost all the space requiremant in user application, such as M2M, PDA ,smartphone, tracker and other mobile device.

The message are send through the GSM module using AT commands.

AT +CMGF =1

ON sending this command to the GSM module, the device sets the mode to text mode. AT+CMGS= "<number>"<message><CTRL-Z>; This command sends a message to the destination number. On receiving the latitude and longitude values from the GPS device , the Raspberry pi configures the SIM900A to the text mode.

Raspberry pi sends a second command "AT+CMGS", in string format to the GSM device. This send a message to the predefined number.

3.2 Web Camera:
Sainsmart camera module 5MP webcam:
In this system we are attaching a camera on a jacket which will capture the image of the attacker . so that it will be easy for police to search the attacker with the minimum time.

3.3 BUZZER :
The alarm is designed to assist in alerting somebody in case of emergency situations.

4. CONCLUSIONS

The proposed design will help the girl when she is in danger zone. She can make rescue of herself in danger situation and this circuit will used to decrease the tension of girl when she walks alone in night hours also, so that she will never fill helpless at any situation and can protect her by herself sand the culprit face will be captured by camera so that police will be able to catch him easily enditemize.

5. REFERENCES

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