

**“ADVANCE WOMAN SECURITY SYSTEM BASED ON ANDROID”**

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**ABSTRACT:** According to the reports of WHO, NCRB-social-government organization 35% Women all over the world are facing a lot of unethical physical harassment in public places such as railway-bus stands, foot paths etc. In this paper the authors have reviewed of various existing systems on women security. The authors have felt a need of advanced women security system to provides the safety measure in public places as well as travelling alone through public transports (school buses, company vehicle etc). This paper proposed a new model for the women security in public places which aims to provide the 100% safe environment.

**Keywords:** Security, Voice Recognition System, SOS key press, Global System for Mobile communication, Global Positioning System, Audio- Video Recording, Spy Camera Detection, Intrusion Detection Activity, Auto Call Receiving, Area Zone Module, Electric Shock for Self Defence, Screaming Alarm

## **1. INTRODUCTION**

This application designed to provide security to women main purpose of this application to provide the awareness on the time of critical situation for women. Generally you can active this service by clicking on ACTIVE SERVICE button. When you clicking on this button service get activate and know whenever you click on VOLUME key it open a new window and send SMS to those contact which you saved at the time of registration the SMS contain your message and your current location. This application is provide deactivate service also when we fill secure this application is mainly required correct information to fill otherwise this app will not work correctly Purpose The main purpose the project is to provide highly reliable security system for the safety of women. The proposed system is based advanced sensors, Microcontroller and GSM. The basic aim of the system is to develop a low cost solution for GPS based women tracking system (women safety system). The main objective of the system is to track the current location of the person which has an android enabled mobile by extracting the longitude and latitude of that target person

## **2. SYSTEM DESIGN**

Existing System Keeping the same concern in mind many developers have come up with innovative applications. Few of such applications are as follows- VithU App: This is an emergency app initiated by a popular Indian crime television series “Gumrah” aired on Channel [V]. In this app when the power button of the Smartphone is pressed twice consecutively, it

will begin sending out alert messages with a link to the location of the user every two minutes to the contacts fed into the app.

SHE (Society Harnessing Equipment): It is a garment designed by three engineers from Chennai. This garment has an electric circuit that can generate 3800kv of current which can help the victim to escape. In case of multiple attacks it can send up to 82 electric shocks. Since the fabric is bilayer, the user is not affected. It can also send emergency messages.

## **3. PROPOSED SYSTEM**

The proposed system is especially for the women safety and overcomes the disadvantages of existing system:- This proposed system is ‘GSM & GPS Based women Security System’. It consists of GPS device ie. Any Android Phone and an emergency button. GPS device must to be placed inside the device (Android Phone). The device will provide the position information such as latitude, longitude of women. An emergency button is fixed on the device at a particular position

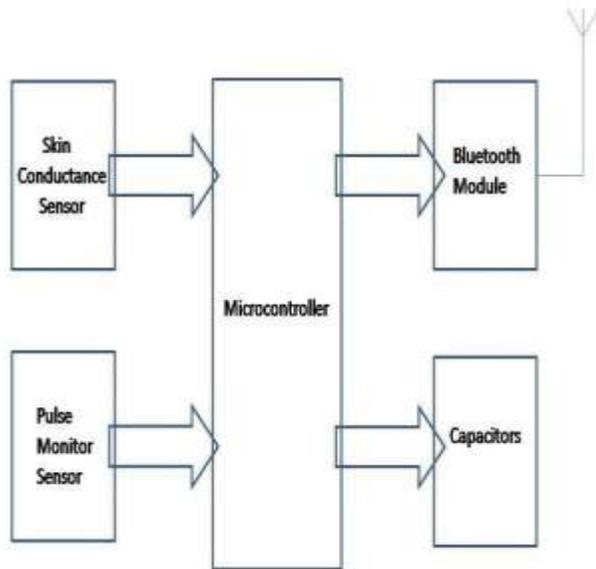
### **Features:**

- 1) This project presents an alert system for Women safety detection.
- 2) The system provides a realizable and efficient.
- 3) The application is easier to use the entire woman.
- 4) User only need a Smartphone or tablet which has Android OS to the work.

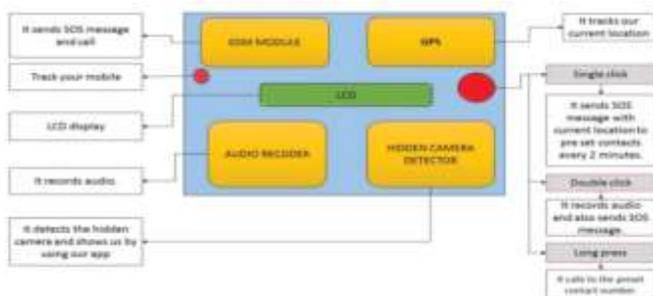
#### 4. DESIGN AND IMPLEMENTATION OF SMART WRIST-BAND FOR SAFETY MEASURES IN EMERGENCY

The proposed system consists of two modules: fear sensing system & Android based mobile phone. The first module consists of a pulse monitor and a wearable skin conductance sensor, whose properties change when a person is in fear or experiences anxiety. As we know pulse rate increases with fear due to the secretion of adrenaline, by sensing a change in the pulse rate, one can figure out if the person is in danger. Another factor is the skin conductance. Since sweat is an electrolyte and a good conductor of electricity the conductance of the skin will increase with sweating. A person tends to sweat when in an unfavourable situation like this; by detecting small changes in the conductance of the skin an appropriate decision can be taken. Once it is established that the person is in danger situation. The proposed fear sensing system strobes Android based mobile phone to send a message to press selected number. Simultaneously a few capacitors in fear sensing system start charging and all ready to discharge into the attacker who makes a physical contact with the victim. However this electrical shock is good enough to incapacitate the attacker for a good few seconds which are crucial for fight or flight and not damage any part of the body.

The device can be activated by just merely pressing the emergency button once. This device gets activated and sends instant location with a distress message to the police pre-set numbers through a GSM module<sup>3</sup>. Figure 4 shows the triggering button and how the device looks like and when the emergency button is double clicked, the device sends both the distress message with instant location and records the audio of the incident. When the same button is long pressed it activated call to the police and sends message to the police instant location. The location is located using GPS (UBLOX). The audio is recorded using audio recorder and call is made from GSM modem respectively. This GSM Modem can accept any GSM network operator SIM card and act just like a mobile phone with its own unique phone number. The plus point of using the modem will be that you can use its RS232 port to communicate and develop embedded applications. It can be used to send and receive SMS<sup>4</sup> or make/receive voice calls. The hidden camera detector can be used anytime to find whether there is any hidden camera in the surrounding to help our privacy. The hidden camera detector works with the help of RF signal interface. When the RF signal is interrupted, camera can be detected. We can also connect the device with our mobile (through Bluetooth HC05), to find our location even if our mobile is lost which can be activated by clicking tracking your mobile button<sup>5</sup> and the location of the mobile is sent to the pre-set number.



#### SMART GIRLS SECURITY SYSTEM



#### 4.1 Internal Working

**SOS Message :** This emergency message consist of our current location tracked by Global Positioning System (UBLOX) and sent to GSM module in which our location and our default emergency message is sent to our pre-stored contacts for every two minutes and a call is connected to the police with a recorded voice to seek help.

**Hidden Camera:** Hidden camera detector is a radio frequency receiver, which picks up electromagnetic signals that are broad casted from electronic device such as spy camera. By moving this detector, we are able to alert the user about the hidden camera. It lights up when it receives a strong frequency.

**Video Recorder:** The video recorder is activated when “FEMME” (application) is activated and records the whole incident and it is useful for the police to find the crime investigation<sup>8</sup>.

**Audio Recorder:** The audio recorder is in the hardware device, when activated records audio and sends to the police for further investigation.

#### Advantages of the Proposed System

- It is an all-in-one system. Hence no need to carry multiple devices.
- GPS tracking feature tracks the user lively when you are the move after triggering the emergency button.
- It records audio, which can be used for further investigations.

- When the battery is running low, it automatically sends the location the pre-stored contacts.
- The second distinct feature is, it also detects the hidden cameras which help in our privacy.
- This device works without internet connectivity

#### **Disadvantages**

- There is no hidden camera detector which is portable to ensure our privacy.
- Monitoring was tedious.
- Mischance in arriving rate

### **5. FUTURE SCOPE**

Mobile and other valuables Safety System Module: The missing rate of mobiles is high while travelling from bus, train or crowded public area. The area zone module functionality further enhances to provide safety. A small device needed to keep either in same pocket or within the range of few centimeters. As you kept the mobile and forget to pick up or someone stolen it then detect to small range the siren of mobile as well as device gets ON for user attention.

Also the same device can attach to our luggage, hence in case of forgetting to pick back or try to stolen by someone can be easily noticed by the module and make the attention of user through the siren alarm.

Hence, the advance technology makes the system more robust and reliable. As the new modules provide the functionality which enhance the safety and security. Thus it helps to fulfill the purpose of the project.

### **6. CONCLUSION**

It can be concluded that the system helps to supports the gender equality by providing safe environment to women in the society, and allows them to work till late nights. Anyone before doing any crime against the women will be deterred and it help reducing the crime rate against the women. In some of the cases the system can provide useful evidences. Since the system can do audio-video recording of incidences which can act as the evidences. The proposed system provides the tool for intrusion detection inside the home where senior citizen, handicapped person or women leaving alone and after detection of intrusion it takes necessary preventive measure action to ensure safety.

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