**SMARISA A Raspberry Pi Based Smart Ring for Women Safety Using IoT**

**Alternative Title:** Raspberry Pi based Smart Wrist Band for women safety

**Aim:**

Aim of this project is to develop a Raspberry Pi based portable women security system using IoT.

**Introduction:**

In the present situation, because of their family situation and passion women need to take every step equal to men. But they cannot step out of their safe zone at any time of the day, cannot wear clothes as per their will, nor can they can go for work in peace. Due to these reasons, there is a need for women security system.

This proposed system adopted IoT technology which is a real-time, portable, secure system used to send alert message to their relatives that consist of easily triggerable raspberry pi camera. Priorly, victim has to install mobile application and select emergency contacts list to send information when they are in danger. When the button connected with raspberry pi is pressed, raspberry pi send the image of crime along with GPS location to mail address. At the moment of alert signal updated in cloud, android application GPS coordinates to cloud and sends it with current location of mobile to selected contact list through mail and SMS.

**Existing system:**

Existing system uses the SMS to send alert message and location which cannot send the image directly. This system sends only image URL to contacts and concerned authority.

**Proposed system:**

This Proposed system uses the Mail services as well as SMS to alert message to relatives and nearby police station when victim under danger situation. It produces the loud sound to grab public attention. It also equipped with electric shock device which can help victim to attack the criminal. Using android mobile application user can register their details and can send SMS to police and relatives. In today scenario, we receive lot of unwanted messages via SMS. So peoples don’t give much important to SMSs. Also some mobile operators cost separate charges for SMS and some time it takes lot time to reach recipient. But Mail services are effective and we can send image directly through mail. This system has electric shock producing circuit it produce high power electric pulses to attack the criminal.

**Block Diagram:**

Electric Shock Circuit

Power Supply

Cloud Database

Android Mobile Application

Raspberry Pi

Button

Camera

Wifi

**Block Diagram Description:**

In this Block Diagram, Button and camera connected with Raspberry Pi. Raspberry Pi connected with internet via mobile hotspot. An android application installed in user mobile which has user registration/login options, emergency contact list, current status (safe/danger), current GPS location and manual alert button. When button pressed Electric Shock circuit produces high power electric pulses which can harm the human skin.

**Components requirement:**

**Hardware requirement:**

* Push button
* Camera
* Raspberry Pi
* Android Mobile

**Software requirement:**

* Language : Embedded ‘C++’,Python
* Compiler : GCC Complier.
* OS : Linux
* Android Application