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Ensuring Women Safety Using Smart Device

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ABSTRACT: In recent days women were working in all major sectors. Unfortunately inwork place or any public place some unwanted women harassment exists. The main objective of this project is to bring novel solution for these issues. This project consists of voice recognition device, Panic switch, PIC controller and GPS with GSM module[1]. This system describes a safe and secure electronic system for women which comprises voice recognition could more generally be called speech recognition or sound recognition, help of stored wordsvoice recognition works. This module is user friendly. In some specific situation women were not in the position to raise their voice, however this project consist panic switch, once pressed alert information passed by GSM which is used to identify words and phrases in spoken language. The panic switch is used instead of voice at some incidence. GPS and GSM are used to track and trace the victim. With the along with the exact location to the guardian and nearest police station. This will make action in smoother way.

I. INTRODUCTION

Women safety has always been an issue even in these modern times with somuch advancement in technology. Women are not safe anywhere and are most vulnerable when traveling alone into lonely roads and deserted places. Existing handheld devices that are available for women safety require women intervention to activate them such as pressing the button or shaking the device etc after sensing the danger.

However, for some reason if a woman has no time to activate it when she is in danger, then the purpose of the safety device is not solved.In a country like India where the growth rate of crime is considered to be more than the growth rate of population, which includes burglary, murders, rapes, and many morewomen's safety is believed to be one of the most important issues.

According to a report by Thomson Reuters Foundation, India is ranked as a highly dangerous place for women worldwide; India has the greatest number of child brides as well. Most of the attacks on women happen when they are traveling alone or are in a remote area where they are not able to find any help or proper assistance. This paper proposes an IOT based solution to address the problem of women safety and that overcomes the shortcomings of existing devices. The proposed designcomprises features to notify family members and nearby police stations forimmediate assistance when women are not safe.

II. LITERATURE SURVEY

1. ARM 7 IOT and GPS based women safety system using controller
In this project utilizing electronic controlled surprise simultaneously as women in risk for security. The principal concept of this equipment is that it is very smart and cleans to hold. The utilization of ultra-present day segments ensures precision and makes it dependable.

2.Harassment monitoring system for security purpose
The proposed women safety device aims at providing complete security to women in current scenarios. The fingerprint is used as a unique identifier for the user so that no one can generate a false alarm and also to ensure that alert is raised only in stress situations.

3.Design and implementation of Android based application for security
The system also includes a buzzer which buzzes when the threshold value is crossed by any one of the sensors. The sensors are connected to an LCD display. When the sensors cross the threshold value then a message is displayed on the LCD screen. The system also uses GSM modules to send SMS on the registered contact numbers. It also uses GPS system to send the location of the victim to the registered number.

4.Smart Assistance for VisuallyImpaired Person

This is the "Android Application for women security system[1]" which is a very useful application mainly for girl's safety. When they feel that they are in an emergency situation, for example travelling alone in the Auto/Cab at night time they can use this application.

5. Women safety device and application

In this paper we used an ARM controller and android application in which both the device and the smart phone are synchronized using Bluetooth, hence both can be triggered independently. They can record audio for further investigation and can give an alert call and message to the present contacts with the instant location every 2 minutes and can be tracked live using our application. Hidden camera detectors are also a distinct feature using which can ensure our privacy.

III. METHODOLOGY

In recent days, incidents like physical harassment are more common. Asone of the solutions to this problem, this proposed system is being developed using the VR (voice recognition) technology. The device gets activated once the AMR voice app is enabled through voice commands. Messages can be sent even if the keypad is locked. Many embedded systems have substantially different designs according to their functions and utilities. In this proposed system, a structured, modular design concept is adopted, and the system is mainly composed of a PIC Microcontroller, LCD, Bluetooth, panic switch, voice Recognition, light source and buzzer, and Android smart device. The microcontroller placed at the centre of the unit forms the control unit for the entire device. Embedded within the microcontroller is a program that helps the microcontroller to take action based on the inputs provided to it. The attack by the victim is indicated through the voice commands, when the voice commands provide through AMR voice app. The unit gets activated and the buzzer is activated to alert surrounding people. If the system fails to recognize the voice command and then an alternative way to activate the system by pressing the panic switch through the police unit.
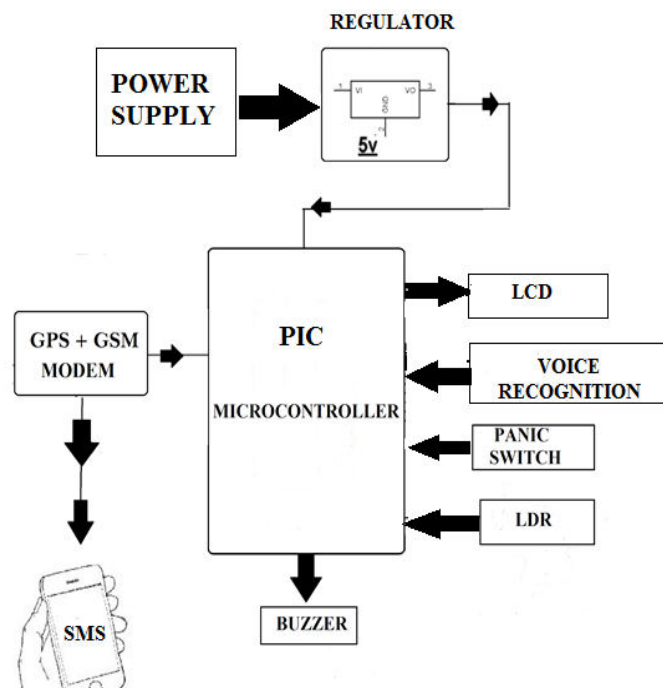
BLOCK DIAGRAM

Figure 1: Block Diagram

IV. IMPLEMENTATION

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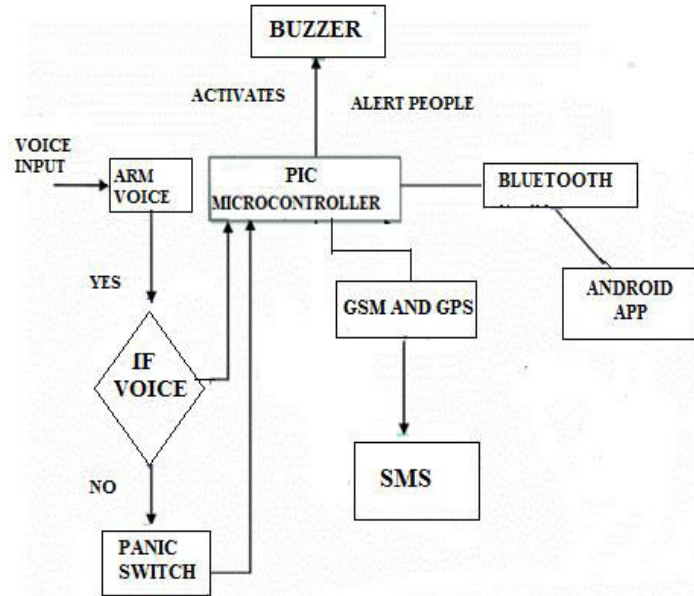

Figure 2: Flow Diagram

V. RESULTS

A model with GPS, GSM, Buzzer controlled by PIC microcontroller.Latitude and Longitude data being received and is shown in LCD , when panic switch is once pressed and then buzzer is activated to alert surrounding people. GSM and GPS modem activated to send the alert message to police and parents. If the system fails an alternative way to activate the AMR voice.
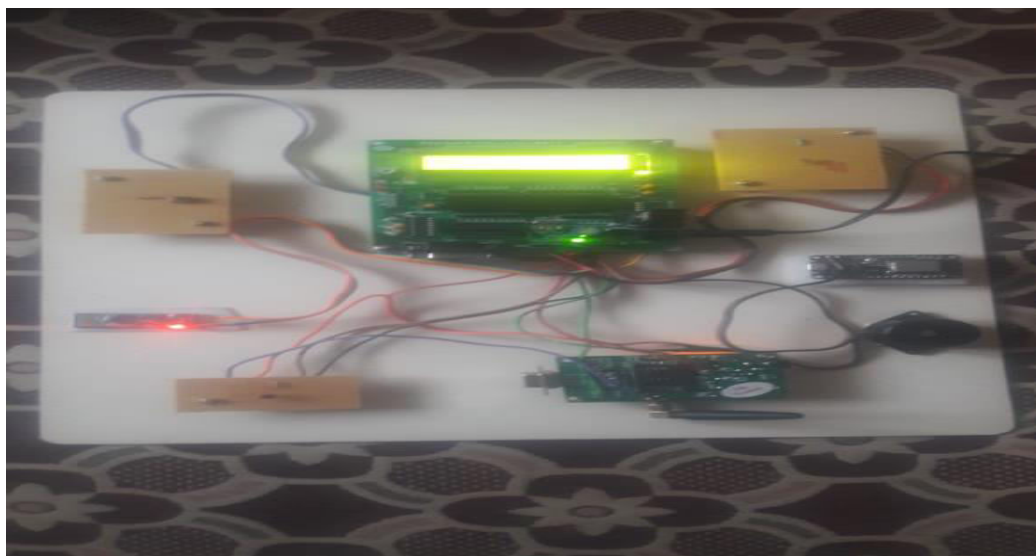

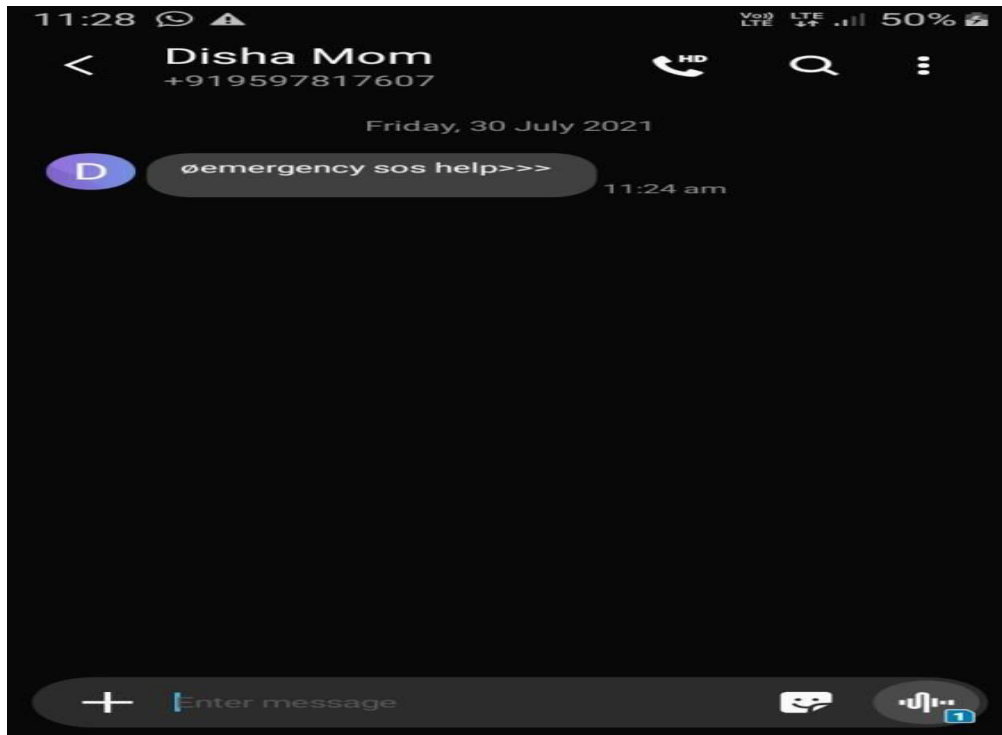Figure 3: Connection of Ensuring Women Safety using Smart Device

Figure 4: Output of project

VI. CONCLUSION

A Best solution for women harassment is to find the victim and their location.This proposed system of this paper is used to improve the level of safety of women and girls. This VR [Voice Recognition] system by using a voice command, panic switch in some cases of the avoidance of the voice is used to press the button topass the alert message. The proposed design is used to solve the critical situation with technology sound equipment and ideas by the women. This system can give self-confidence to the women to face the incident which is against her safety and security. The main purpose of the proposed system is used to save the women before any intolerance incidental occurs, and this is achieved through this work.

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