पीएम श्री केन्द्रीय विद्यालय क्र.-1, छिन्दवाड़ा
PM SHRI KENDRIYA VIDYALAYA NO.-1, CHHINDWARA

INSPIRING
INNOVATORS OF TOMORROW

INSPIRE AWARDS – MANAK is an initiative to foster a culture of creative and innovative thinking among school children to address societal needs through Science and Technology.

inspire awards - manak

Topic - Smart Bag

SMART BAG WITH WOMEN & CHILDREN SECURITY

STRENGTHEN SAFETY OF VULNERABLE SECTION :KIDS, SPECIAL CHILDREN

INTRODUCTIONS

The smart bag comprises of GSM module, voice sensor, emergency switch. The system gets activated either by pressing an emergency switch or by sensing the voice of the woman through a voice sensor. Upon detecting alarming situation, a high intensity light starts flashing, a siren generates high pitch sound alarm, In the meantime message is sent automatically to registered numbers mentioning location and the situation. It will helps to find the location over the map

List of modules mentions: -

1) The LRD Buzzer circuit Module
2) The Infra-Red Touch Sensor Module
3) The Magnet zip Lock Module
4) Bluetooth device Module
5) The one button emergency Call Module
6) The Auto Audio Sense Module by GSM -2G
7) The Command based GSM location Tracker

LDR : (Light Depending Resistor)

LDR (Light Dependent Resistor) as the name states is a special type of resistor that works on the photoconductivity principle means that resistance changes according to the intensity of light. Its resistance decreases with an increase in the intensity of light.it will helps in the buzzer circuit module.

BUZZER:

A beeper or buzzer, for example, can be electromechanical, piezoelectric, or mechanical. The primary purpose of this is to transform the audio signal into sound. It is typically utilized in timers, alarm devices, printers, alarms, computers, etc. and is powered by DC voltage. It can make a variety of sounds, including an alarm, music, bell, and siren, depending on the designs.

RELAY: (with Infrared Signals)

A relay is an electronic switch with IR sensor that can be operated remotely and is typically controlled by another switch, computer, or control module. These relays are an excellent choice for equipment currently found in automobiles because they can be used as a standard 12 volt replacement or as an addition to the full voltage. Relays can be mounted directly with any abstract in the path of IR sensor it emitted siren and module start working

GSM: (keypad Mobile – 2G functional)

A device that uses GSM mobile telephone technology to provide a wireless data link to a network is known as a organizations. They identify their device to the network using SIM cards' (Worldwide Framework for Portable Correspondences) is a bunch of versatile interchanges guidelines and conventions overseeing second-age or 2G organizations,

VOICE DETECTOR SENSOR: (2G functional)

The sound recognition sensor module distinguishes the power of sound where sound is recognized by means of a receiver. It has a built-in potentiometer for adjusting the sound level's setpoint. DC operating voltage ranges from3.3V to 5V. V8 Controller (comparator) with a predetermined threshold. Enlistment distance is 0.5 Meter. The microphone's sensitivity at 1 kHz is: 4 to 5 mA. 52 to 48 dB; simple to operate with microcontrollers or even standard Digital/Analog ICs.

GPS –(Global Positioning System)

Global Positioning System (GPS) is a navigation and precise positioning tool, which tracks the location in the form of longitude and latitude based on Earth by calculating the time difference for signals from various satellites to reach the receiver It receives the data of location and transmits it.

CONCLUSION:-

This work includes the study of GSM and GPS modems using sensors. The biggest advantage of using this project is, whenever the switch is pressed, we will be getting the location from GSM modem to our mobile numbers which are stored in GSM network so that one can save the person who is in threat. Implementing real time application and a device, we can solve the problems to an extent. With further research and innovation

SCOPE and APPLICATIONS: -

In future, system can be interface with the Camera for capturing image and recording live video also. With the advancement in technology it can be implemented with various real-time technology for better security.

Applications are:

a) It will be used for safety of women's.

b) It will be used for child tracking during school time.

c) It will be used in vehicle tracking & safety system.

d) It will be used for safety of elderly aged people.
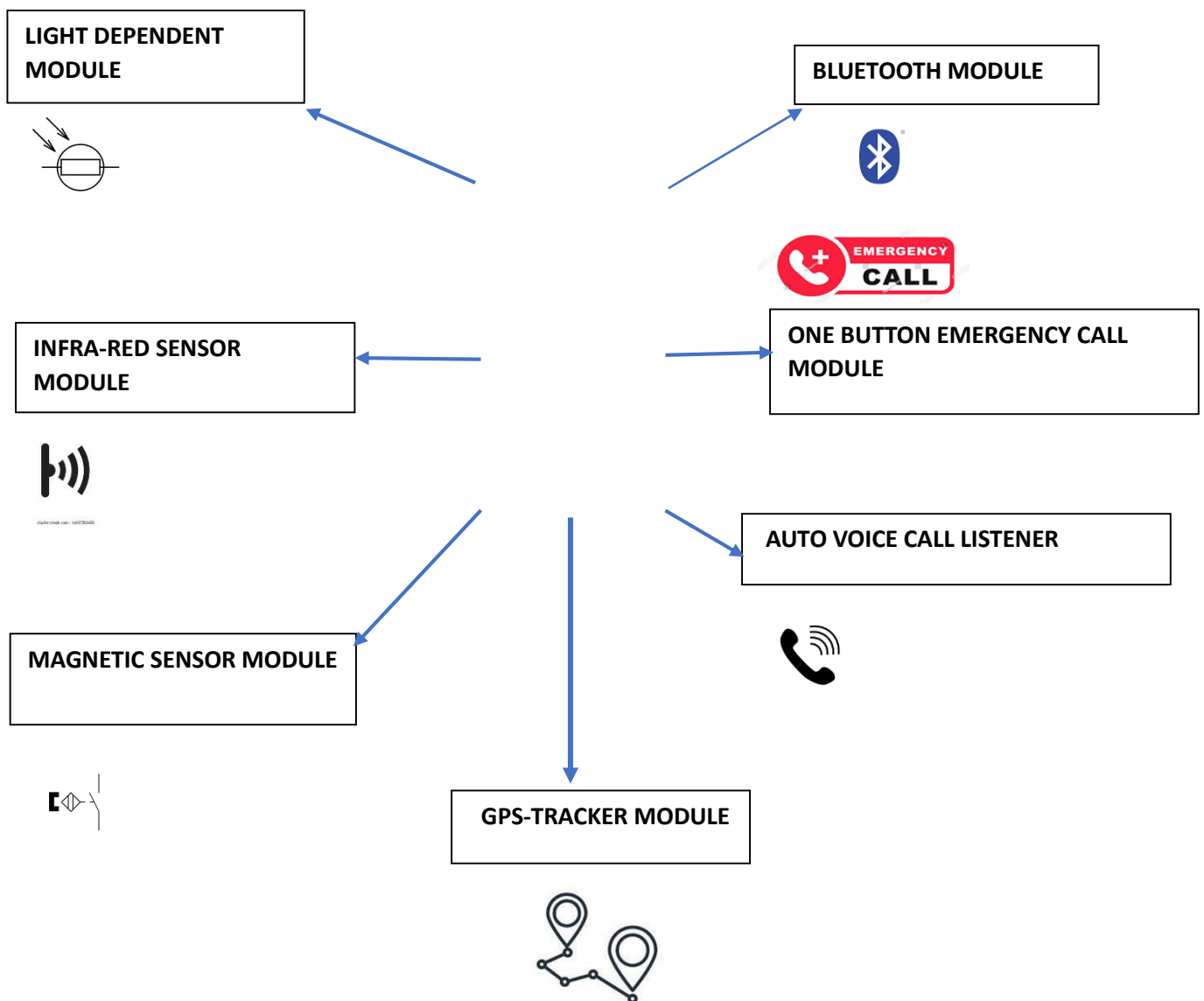
e) It will be used for pets tracking also.

It can uses wherever it requires.

Advantages –

1) Woman Security in very low cost
2) User Friendly and easy to use
3) Useful for the all type of realistic societies

SMART

BAG

BLOCK DIAGRAM OF THE SMART BAG WITH WOMAN SECURITY

LIGHT DEPENDENT
MODULE

BLUETOOTH MODULE

INFRA-RED SENSOR
MODULE

ONE BUTTON EMERGENCY CALL
MODULE

AUTO VOICE CALL LISTENER

MAGNETIC SENSOR MODULE

GPS-TRACKER MODULE

SMART BAG WITH WOMAN SECURITY

PRESENTED BY

MISS. **SHRUTI DUBEY**
CLASS – 8TH D
KENDRIYA VIDYALAYA NO-1 CHHINDWARA (M.P.)

With Project Guidance Special Thanks to: -

Mr. Dhanraj Kharpuse TGT (Science)

Special Thanks to Honourable Principal Sir:

Respected Principal Sir

SH. HARI PRASAD DHARKAR

PM SHRI K.V. NO.1 CHHINDWARA (M.P.)