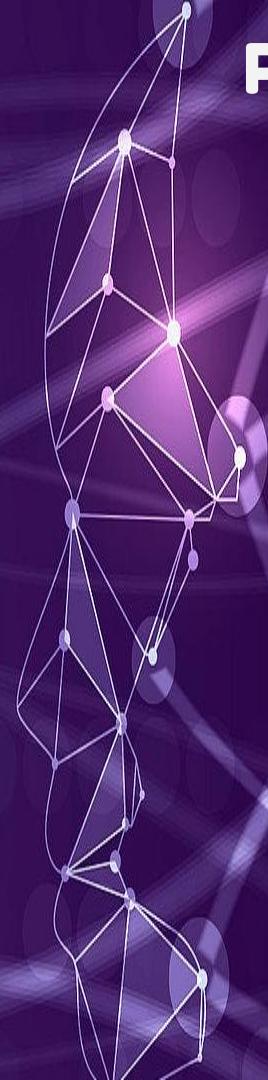


Problem Statement

- **SAFETY FROM FIRE
HAZARDS AND SPREAD
OF HAZARDOUS GASES**



01 Arduino

01 ESP8266 WiFi Module
attached with ESP01 module

01 MQ2 gas sensor

01 Green & Red LED

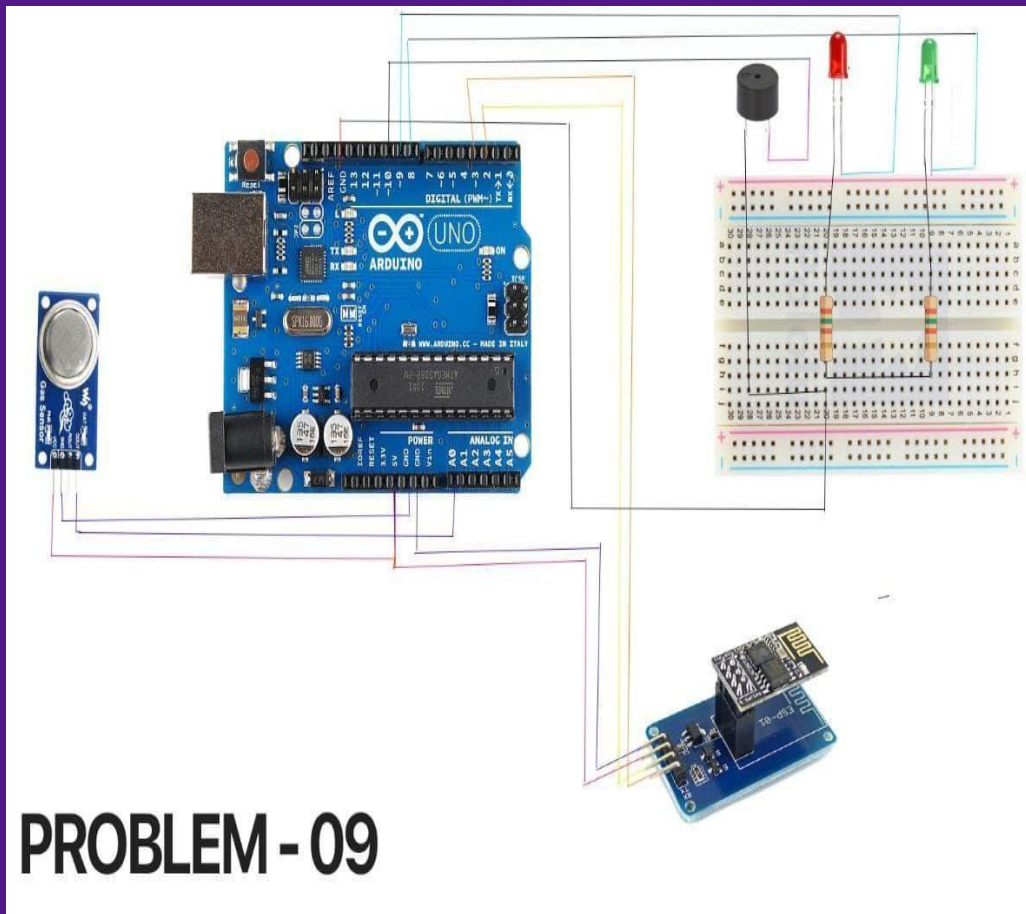
01 Buzzer

02 220 OHM Resistors

01 Breadboard

Many Connecting Wires

Components:





```
//Team name : Protocol6
//Team Leader : B Zahid Hussain
//problem statement number : 9
#include <SoftwareSerial.h>
#define DEBUG true
SoftwareSerial wifi_module(2,3);
int red_led_pin = 9;
int green_led_pin = 8;
int buzzer_pin = 10;
int smoke_sensor_pin = A0;
void setup()
{
  Serial.begin(9600);
  wifi_module.begin(9600); // Set the baudrate according to your esp8266
  pinMode(red_led_pin, OUTPUT);
  pinMode(green_led_pin, OUTPUT);
  pinMode(buzzer_pin, OUTPUT);
  pinMode(smoke_sensor_pin, INPUT);
  esp8266_command("AT+RST\r\n",2000,DEBUG); // reset module
  esp8266_command("AT+CWMODE=2\r\n",1000,DEBUG); // configure as access point
  esp8266_command("AT+CIFSR\r\n",1000,DEBUG); // get ip address
  esp8266_command("AT+CIPMUX=1\r\n",1000,DEBUG); // configure for multiple
  esp8266_command("AT+CIPSERVER=1,80\r\n",1000,DEBUG); // turn on server on port 80
}
void loop()
{
  int analogSensor = analogRead(smoke_sensor_pin);
  if (analogSensor > 350)
  {
    digitalWrite(red_led_pin, HIGH);
    digitalWrite(green_led_pin, LOW);
    tone(buzzer_pin, 1000, 200);
  }
  else
  {
    digitalWrite(red_led_pin, LOW);
    digitalWrite(green_led_pin, HIGH);
    noTone(buzzer_pin);
  }
  if(wifi_module.available())
  {
    if(wifi_module.find("+IPD,")
    {
      delay(1000);
      int connectionId = wifi_module.read()-48;
      String webpage = "<h1>IOT Smoke Detection System</h1>";
    }
  }
}
```



FEASIBILITY

01 Easy to setup

02 Low Cost

03 Quick Response

04 Intuitive Dashboard



Protocol6 Hazardous Gas analytic dashboard

Number of Gases being Monitored +10%

7

10+ Target Gases

Actively Monitored Houses +10%

50M

Full Population Targeted

Past Incidents -1.5%

73

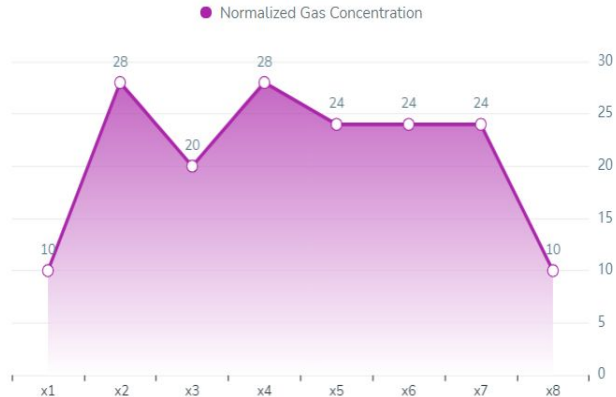
Less than 1%

Average Concentration +6%

225ppm

upto 10000ppm covered

INDIVIDUAL USER STATISTICS



Dashboard will Contain

01 Number of actively monitored houses

02 Total number of past incidents

03 Number of gases that are being monitored

04 Individual user statistics



Dashboard will Contain

05 Yearly statistics `

06 Individual gas concentration percentage



Protocol6

Dashboard

Application 4

Pages

GETTING STARTED

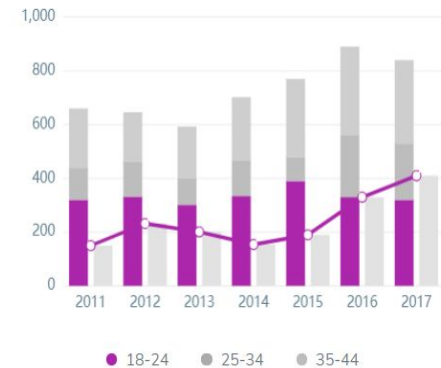
Documentation

Changelog V1.0

Support

Protocol6 Hazardous Gas analytic dashboard

YEARLY STAT



Carbon Monoxide

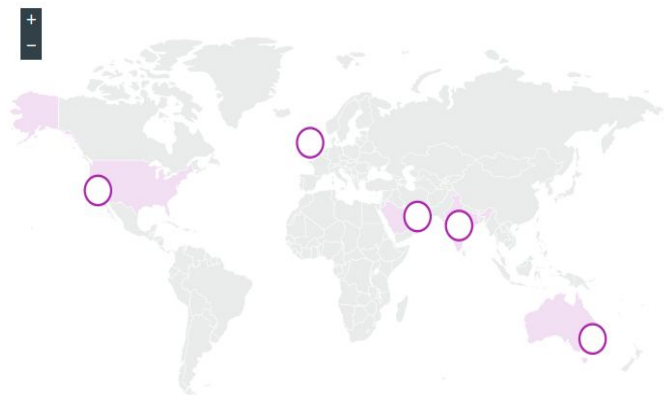


<

% Percentage

>

COUNTRY STATS



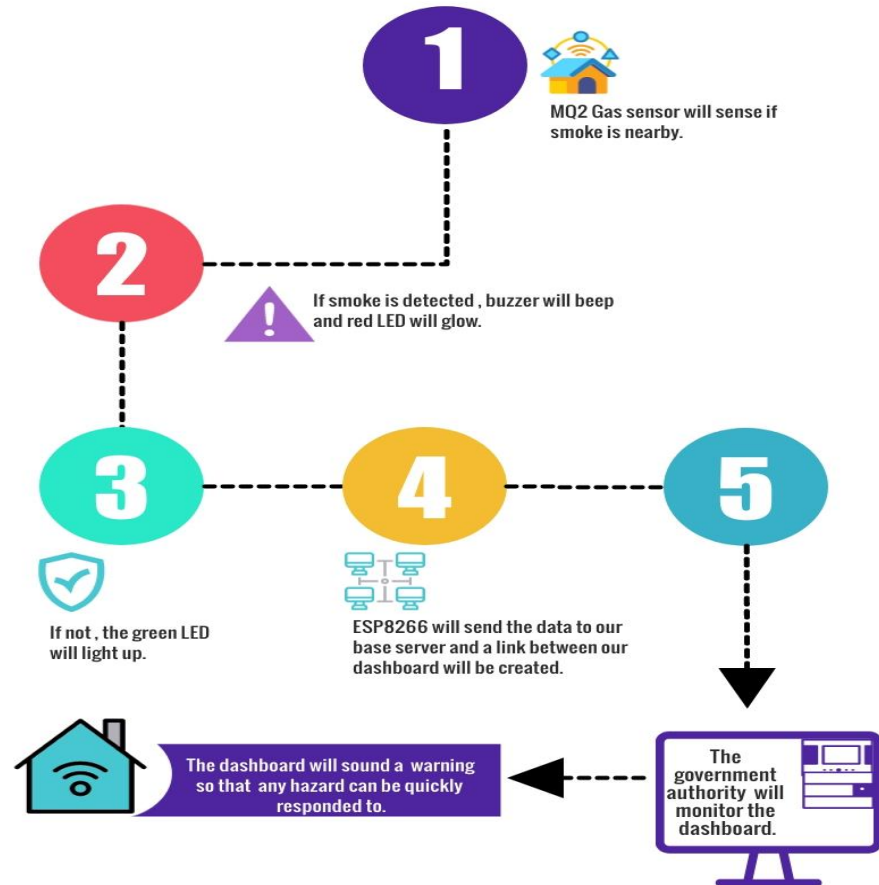
States	Number Of Total Cases	Number Of Past Cases	Number Of Active Cases	Average Response Time
Uttar Pradesh	55,555	210	2	2.6 min
Rajasthan	24,152	135	0	4.3 min
Tamil Nadu	15,640	324	5	2.4 min
Assam	12,148	854	4	1.1 min
Uttarakhand	11,258	453	8	1.4 min
Delhi	10,786	376	5	4.5 min
Maharashtra	9,485	63	3	9 min

Dashboard will Contain

07 Interactive country map

08 State wise statistics

DATA FLOW



HOW IT WORKS

Get instant alert when the gas concentration increases to specified level

**“The future belongs to those who believe in
the beauty of their dreams”**



THANK YOU !

**Questions Are
Welcome!**

