

## PROJECT CODE

### INDUSTRY-SPECIFIC INTELLIGENT FIRE MANAGEMENTSYSTEM

TEAM ID: PNT2022TMID38337

#### **SOURCE CODE:**

```
#define BLYNK_TEMPLATE_ID "TMPLqCSC89Q2"
#define BLYNK_DEVICE_NAME "Fire Detection"
#define BLYNK_AUTH_TOKEN "PxJ7MvV-hMXaEwKe39Lip9vLqZRNSCOX"

#define BLYNK_PRINT Serial
#include <ESP8266WiFi.h>
#include<OneWire.h>
#include<DallasTemperature.h>
#include <BlynkSimpleEsp8266.h>

char auth[] = BLYNK_AUTH_TOKEN;
char ssid[] = "Nalayathiran"; // Change your Wifi/ Hotspot
Name char pass[] = "24092001"; // Change your Wifi/ Hotspot
Password

BlynkTimer timer;

#define fire D2
#define smoke A0
#define ONE_WIRE_BUS D4
#define GREEN D5
#define RED D6
```

```
#define buzzer D7
int fire_Val = 0;
int data = 0;
OneWire oneWire(ONE_WIRE_BUS);
DallasTemperature DS18B20(&oneWire);
float temp = 0;
WidgetLED led(V1);

void setup() //Setup function - only function that is run in deep sleep mode
{
    Serial.begin(9600); //Start the serial output at 9600 baud
    pinMode(GREEN, OUTPUT);
    pinMode(smoke, INPUT);
    pinMode(buzzer, OUTPUT);
    pinMode(fire, INPUT);
    pinMode(RED, OUTPUT);
    pinMode(buzzer, OUTPUT);
    pinMode(ONE_WIRE_BUS, INPUT);

    Blynk.begin(auth, ssid, pass); //Splash screen delay
    delay(2000);
    timer.setInterval(500L, mySensor);
}

void loop() //Loop function
{
    Blynk.run();
    timer.run();
}

void mySensor()
{
    fire_Val = digitalRead(fire);
    data = analogRead(smoke);
    Blynk.virtualWrite(V2, data);
    DS18B20.requestTemperatures();
}
```

```
temp = DS18B20.getTempCByIndex(0);
  Blynk.virtualWrite(V3,temp);
if ((fire_Val == HIGH)|| (data > 500)|| (temp > 35))
{
  Blynk.logEvent("fire_alert");
  digitalWrite(GREEN, LOW);
  digitalWrite(RED, HIGH);
  tone(buzzer, 1000);
  Blynk.virtualWrite(V0, 1);
  Serial.print("fIRE Level: ");
  Serial.println(fire_Val);
  Serial.write("fire detected");
  led.on();
}

else
{
  digitalWrite(GREEN, HIGH);
  digitalWrite(RED, LOW);
  noTone(buzzer);
  Blynk.virtualWrite(V0, 0);
  Serial.print("fIRE Level: ");
  Serial.println(fire_Val);
  led.off();
  Serial.write("no fire detected");
  Serial.println(data);
  Serial.println(temp);
}
}
```