**Final Source Code :**

**Team ID:** PNT2022TMID15947

**Project Name:** Industry – specific intelligent fire management system

**Team Members:**

1) Balaji P (Team Leader)

2) Akilan A

3) Dinesh S

4) Arun R

**Code:**

// Chage These Credentials with your Blynk Template credentials

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#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[] = "praveen";

// Change your Wifi/ Hotspot Name

char pass[] = "24092001";

// Change your Wifi/ Hotspot Password

BlynkTimer timer;

#define fire D2

#define smoke A0 ONE\_WIRE\_BUS GREEN RED D6D5 D4

#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 = DS18B20 BlynkanalogRead .virtualWrite requestTemperatures (smoke (V2,data ); ();

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);

}

}

**Output Video Link:**

[**https://drive.google.com/file/d/1I\_\_e9U4vEg9BEf0xCuQFw-ARb-PpQ-ML/view?usp=sharing**](https://drive.google.com/file/d/1I__e9U4vEg9BEf0xCuQFw-ARb-PpQ-ML/view?usp=sharing)