

CODING

```
#include <ESP8266WiFi.h>
```

```
#include <WiFiClient.h>
```

```
#include <PubSubClient.h>
```

```
#include <ESP8266WebServer.h>
```

```
#include <ESP8266HTTPClient.h>
```

```
const char* ssid = "SMART-G";
```

```
const char* password = "10112019";
```

```
#define WT A0
```

```
#define CY D0
```

```
#define ID "gbezI0"
```

```
#define DEVICE_TYPE "ESP8266"
```

```
#define DEVICE_ID "GAS"
```

```
#define TOKEN "IOT-12345"
```

```
char server[] = ID ".messaging.internetofthings.ibmcloud.com";
```

```
char publish_Topic1[] = "iot-2/evt/Data1/fmt/json";
```

```
char publish_Topic2[] = "iot-2/evt/Data2/fmt/json";
```

```
char authMethod[] = "use-token-auth";
```

```
char token[] = TOKEN;
```

```
char clientId[] = "d:" ID ":" DEVICE_TYPE ":" DEVICE_ID;
```

```
WiFiClient wifiClient;
```

```
PubSubClient client(server, 1883, NULL, wifiClient);
```

```

void setup() {
    Serial.begin(115200);
    // dht.begin();
    Serial.println();
    WiFi.begin(ssid, password);
    while (WiFi.status() != WL_CONNECTED) {
        delay(500);
        Serial.print(".");
    }
    Serial.println("");
    Serial.println(WiFi.localIP());

    if (!client.connected()) {
        Serial.print("Reconnecting client to ");
        Serial.println(server);
        while (!client.connect(clientId, authMethod, token)) {
            Serial.print(".");
            delay(500);
        }
        Serial.println("Connected TO IBM IoT cloud!");
    }
}

```

```

long previous_message = 0;
void loop() {
    client.loop();
    long current = millis();
    if (current - previous_message > 500) {
        previous_message = current;
        float hum = map(analogRead(A0), 0, 1023, 0, 100);
        float temp = map(digitalRead(D0), 0, 1, 0, 100);
    }
}

```

```

        if (isnan(hum) || isnan(temp) ){
        Serial.println(F("Failed to read sensor!"));
        return;
    }

```

```

    Serial.print("GAS 1: ");
    Serial.print(hum);

```

```

    HTTPClient http;
    String postData;
    String key = Serial.readString();
    Serial.print(key);
    if(hum >= 80)//8870599026
    {
        postData =
"username=fantasy&password=596692&to=8870599026&from=FSSMSS&message=Dear user  your
msg is ABNORMAL GAS DETECTED IN NORTH EAST LOCATION ,LEVEL IS "+String(analogRead(A0))+",
"+String(hum)+"%"+" Sent By FSMSG
FSSMSS&PEID=1501563800000030506&templateid=1507162882948811640";
        Serial.print(postData);
        http.begin("http://smsserver9.creativepoint.in/api.php");
        http.addHeader("Content-Type", "application/x-www-form-urlencoded");
        int httpCode = http.POST(postData);
        String payload = http.getString();
        Serial.println(payload);
        http.end();
        delay(1000);
    }

```

```

    String payload = "{\"d\":{\"Name\":\"\" DEVICE_ID \"\"";
    payload += "\",\"GAS 1\":";

```

```

        payload += hum;

        payload += "}}";

    Serial.print("Sending payload: ");

    Serial.println(payload);

    if (client.publish(publish_Topic1, (char*) payload.c_str())) {
        Serial.println("Published successfully");
    } else {
        Serial.println("Failed");
    }

    // String payload1 = "{\"d\":{\"Name\":\"\" DEVICE_ID \"\"";
    //     payload1 += "\",\"GAS 2\":";
    //     payload1 += hum;
    //     payload1 += "}}";
    //     Serial.print("Sending payload: ");
    //     Serial.println(payload1);
    //     Serial.println('\n');
    //
    // if (client.publish(publish_Topic2, (char*) payload1.c_str())) {
    //     Serial.println("Published successfully");
    // } else {
    //     Serial.println("Failed");
    // }
    // }
}

```