



SNS COLLEGE OF TECHNOLOGY

Coimbatore-35

An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with
'A++' Grade

Approved by AICTE, New Delhi & Affiliated to Anna University,
Chennai



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

19ECT213- IoT SYSTEM ARCHITECTURE

II ECE / IV SEMESTER

UNIT 4 – Cloud Platforms for IoT

Things speak API Interfacing ESP8266



Things speak:

- ThingSpeak is an IoT analytics platform service that allows you to aggregate, visualize and analyze live data streams in the cloud.
- ThingSpeak provides instant visualizations of data posted by your devices to ThingSpeak.



```
#include <WiFi.h>
#include "DHT.h"
#include <ThingSpeak.h>
const char apiKey[] = "5V6YO5M7DJFR3SOD"; // write your "Write API key"
const char* ssid = "Wokwi-GUEST"; // write your "wifi name"
const char* password = ""; // write your "wifi password"
//const char* ssid = "mugil";
//const char* password = "12345678";
const char* server = "api.thingspeak.com";
long myChannelNumber = 2457760;
WiFiClient client;
DHT dht(38, DHT22); // (dht pin no, dht sensor type)
float Hum, Temp;
void setup()
{
  Serial.begin(9600);
  Serial.println("Serial Begin");
  dht.begin();
}
```



```
WiFi.begin(ssid, password);  
Serial.println();  
Serial.println();  
Serial.print("Connecting to ");  
Serial.println(ssid);  
  
while (WiFi.status() != WL_CONNECTED)  
{  
    delay(500);  
    Serial.print(".");  
}  
Serial.println("");  
Serial.println("WiFi connected");  
ThingSpeak.begin(client);  
}
```



```
void loop() {  
  Hum = dht.readHumidity();  
  Temp = dht.readTemperature();  
  Serial.println("Temperature: "+ (String)Temp);  
  Serial.println("Humidity: "+ (String)Hum);  
  ThingSpeak.writeField(myChannelNumber, 1, Temp, apiKey);  
  ThingSpeak.writeField(myChannelNumber, 2, Hum, apiKey);  
  Serial.println("Waiting");  
  delay(5000);  
}
```



Thank you