#include <ESP8266WiFi.h>

String apiWritekey = "QH3YQW7R844Z6MH7"; // replace with your THINGSPEAK WRITEAPI key here

const char\* ssid = "vicky"; // your wifi SSID name

const char\* password = "Allahbadshah" ;// wifi pasword

const char\* server = "[api.thingspeak.com](http://api.thingspeak.com/)";

float resolution=3.3/1023;// 3.3 is the supply volt  & 1023 is max analog read value

WiFiClient client;

void setup() {

  Serial.begin(115200);

  WiFi.disconnect();

  delay(10);

  WiFi.begin(ssid, password);

  Serial.println();

  Serial.println();

  Serial.print("Connecting to ");

  Serial.println(ssid);

  WiFi.begin(ssid, password);

  while (WiFi.status() != WL\_CONNECTED) {

    delay(500);

    Serial.print(".");

  }

  Serial.println("");

  Serial.print("NodeMcu connected to wifi...");

  Serial.println(ssid);

  Serial.println();

}

void loop() {

  float temp = (analogRead(A0) \* resolution) \* 100;

  if (client.connect(server,80))

  {

    String tsData = apiWritekey;

           tsData +="&field1=";

           tsData += String(temp);

           tsData += "\r\n\r\n";

     client.print("POST /update HTTP/1.1\n");

     client.print("Host: [api.thingspeak.com](http://api.thingspeak.com/)\n");

     client.print("Connection: close\n");

     client.print("X-THINGSPEAKAPIKEY: "+apiWritekey+"\n");

     client.print("Content-Type: application/x-www-form-urlencoded\n");

     client.print("Content-Length: ");

     client.print(tsData.length());

     client.print("\n\n");  // the 2 carriage returns indicate closing of Header fields & starting of data

     client.print(tsData);

     Serial.print("Temperature: ");

     Serial.print(temp);

     Serial.println("uploaded to Thingspeak server....");

  }

  client.stop();

  Serial.println("Waiting to upload next reading...");

  Serial.println();

  // thingspeak needs minimum 15 sec delay between updates

  delay(20000);

}