```
#include <WiFi.h>      // Native Wi-Fi library for ESP32
#include <ThingSpeak.h> // Library to interact with ThingSpeak
#include <DHT.h>       // Library for the DHT sensor

// Wi-Fi credentials
const char* ssid = "Nila";        // Replace with your Wi-Fi SSID
const char* password = "Nila@1311"; // Replace with your Wi-Fi password

// ThingSpeak credentials
unsigned long channelID =  2754568; // Replace with your ThingSpeak Channel ID
const char* writeAPIKey = "7WR3PFK5SQZLRIM4"; // Replace with your Write API Key

// Pin Definitions
#define VOLTAGE_PIN 5 // ADC1 Channel 0 (VP pin) for voltage sensor on ESP32
#define DHTPIN 4      // Digital pin for DHT sensor (adjust as per your wiring)
#define DHTTYPE DHT11  // DHT 11 sensor type

// Initialize WiFi client and DHT sensor
WiFiClient client;
DHT dht(DHTPIN, DHTTYPE);

void setup() {
 Serial.begin(115200); // Initialize Serial Monitor
 dht.begin();         // Initialize DHT sensor

 // Connect to Wi-Fi
 Serial.print("Connecting to Wi-Fi");
 WiFi.begin(ssid, password);
 while (WiFi.status() != WL_CONNECTED) {
  delay(500);
  Serial.print(".");
 }
```

```
 Serial.println("\nWi-Fi connected");

 // Initialize ThingSpeak
 ThingSpeak.begin(client);
}

void loop() {
 // Read voltage from the analog pin
 int analogValue = analogRead(VOLTAGE_PIN); // Read ADC value
 float voltage = analogValue * (3.3 / 4095.0); // Convert to voltage (ESP32 ADC resolution is 12-bit)

 // Read temperature and humidity from DHT sensor
 float temperature = dht.readTemperature(); // Read temperature in Celsius
 float humidity = dht.readHumidity();      // Read humidity

 // Check if any reading failed
 if (isnan(temperature) || isnan(humidity)) {
  Serial.println("Failed to read from DHT sensor!");
  return;
 }

 // Print data to Serial Monitor
 Serial.print("Voltage: ");
 Serial.print(voltage);
 Serial.print(" V, Temperature: ");
 Serial.print(temperature);
 Serial.print(" °C, Humidity: ");
 Serial.print(humidity);
 Serial.println(" %");

 // Send data to ThingSpeak
 ThingSpeak.setField(1, voltage);    // Voltage data
```

```
  ThingSpeak.setField(2, temperature); // Temperature data
  ThingSpeak.setField(3, humidity);    // Humidity data

  int responseCode = ThingSpeak.writeFields(channelID, writeAPIKey);
  if (responseCode == 200) {
    Serial.println("Data sent to ThingSpeak successfully!");
  } else {
    Serial.print("Error sending data to ThingSpeak. Response code: ");
    Serial.println(responseCode);
  }

  // Wait before the next update (e.g., 30 seconds)
  delay(30000);
}
```