**DHT11 Temperature and Humidity Monitor with ESP8266**

**Project Overview:**

This project utilizes the DHT11 temperature and humidity sensor in conjunction with an ESP8266 microcontroller to collect environmental data and upload it to ThingSpeak for real-time monitoring. This is a fundamental IoT application suitable for beginners and enthusiasts.

**Objectives:**

Monitor temperature and humidity levels.

Upload data to ThingSpeak for visualization and analysis.

Understand basic IoT principles using ESP8266 and DHT11.

**Components Required:**

ESP8266

DHT11

Breadboard and Jumper Wires

ThingSpeak Account

**Circuit Diagram:**

DHT11 VCC to ESP8266 3.3V

DHT11 GND to ESP8266 GND

DHT11 Data Pin to ESP8266 Digital Pin D2 (GPIO 4)

**Output diagram:**



