Sarvajanik College of Engineering & Technology, Surat

PROJECT COMPETITION ON EMBEDDED SYSTEM

Project Title :

A Weather Monitoring System on ESP 32 web server

Problem Statement :

- Limited way for user to know about weather such as temperature, humidity and pressure.
- User can't be alerted of the strong winds, heat waves or any other weather- related emergency.
- Difficulty in making weather forecasts without data.
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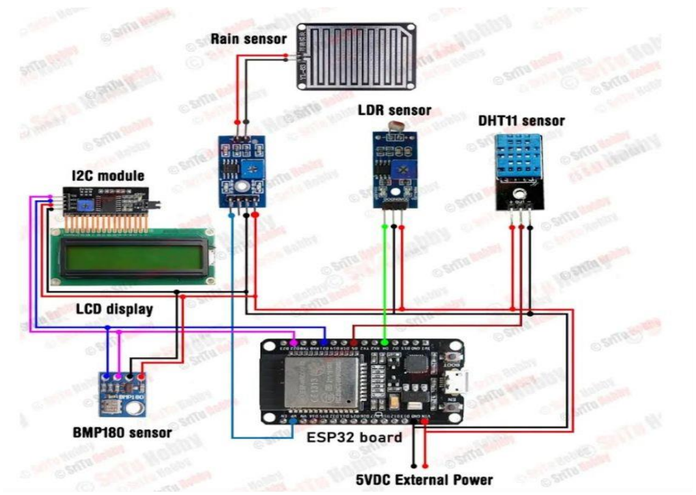
Pin Diagram :

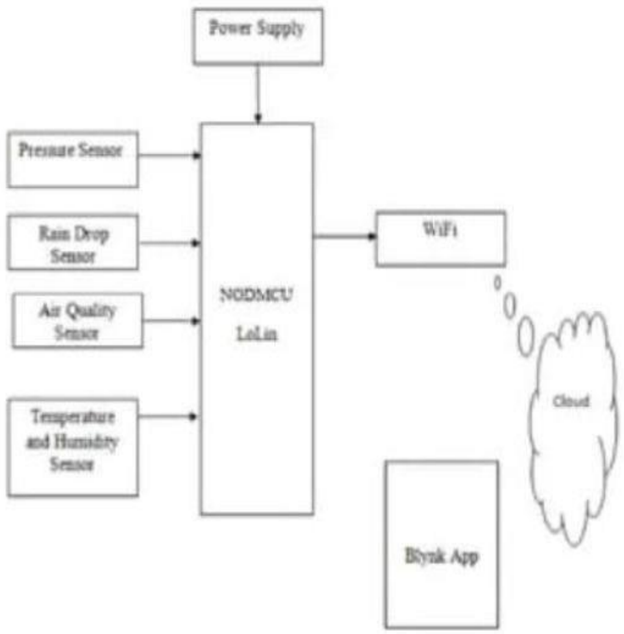


Technology Stack :

- Hardware :
  - ESP Board 32
  - LDR sensor
  - DTH11
  - BMP180
  - Rain sensor
  - LCD display
  - I2C Module
  - Jumper Wires

❑ Software :
- arduino

Block Diagram :



Objective :

- To design a facility that can help user to access data anywhere in real- time.
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- To develop weather station that can help user to plan their day to day activities.
- To test the capabilities and effectiveness of the Weather Station and generate the data to the user.

Conclusion :

- Maintaining a weather station in the environment for monitoring and self-defense (smart environment) enables the environment. The environment's sensor devices must be used for data collection and processing in order to achieve this. We can make the environment more realistic by using sensor devices in it. The user will then An have access to the gathered data and the analysis' findings over Wi-Fi.
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