

# IOT Digital Weather Station and Data Storage System.

## About This Project:

In this project we are going to build a Weather Station & data base with IoT Technology. Building a IoT Weather Station & Database is a great learning experience. When we completed this project we will have a better understanding of how sensors work, and how powerful the Node MCU platform can be. With this project as a base and the experience gained, we will be able to easily build more complex projects in the future.

A Weather station is a device that collects data related to the weather and environment using many different sensors & its store a database with IoT Platform. We used smoke & temperature sensor which collect the weather smoke, temperature & humidity & send this data IoT Platform Using Node MCU via internet .after storage this data next time collected this data for data analyzing. Digital Weather Station Data Storage project consists of parameters monitoring, parameter Storage. We have used Node MCU as a main component of the project. Many sensors are included this project such as temperature sensor, Smoke sensor module for collected the various data of weather. This project consists of two basic part. First is Data Monitoring & other is data storage via internet. A display Unit will show the value of parameters. The other module is named as data storage it can be used to store the parameter values in the memory.

## Block Diagram:

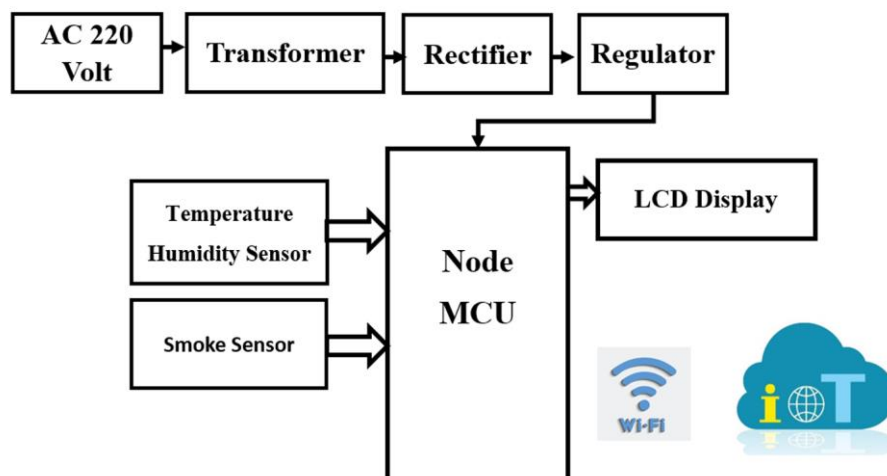


Figure: Block Diagram of Block Diagram of Digital Weather Station Data Storage System.

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### Required Instrument:

- Node MCU.
- LCD Display 16\*2.
- Temperature sensor DHT11
- Transformer.
- Bridge Rectifier.
- Capacitor.
- Resistor.

### Advantages:

- It saves time and physical work.
- This system is easy to use.
- This project can be measured Temperature, Humidity, & Storage This Data Via Internet.
- Measured data can be stored digitally.

### Applications:

The project has a major application in the

- Bangladesh Meteorological Department
- Power grid.
- Factories.
- Mills and Industrial areas.
- Weather Monitoring Station.

**N.B:** *Any modification of this project can be done as per your requirement. We will make the project according to your needs. Contact us with your any innovative engineering projects idea. We will help you to implement your project.*

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