

# IoT Based Smart Multifunctional Grid System

#### **About This Project:**

Electricity as an important invention without which life on Earth is impossible. So obviously there is a need for measuring the consumed electricity. Accomplished by the wattmeter, but a person visits each customer's house for measuring the power consumption and for calculating the bill amount of customers. So it requires much manual work and consumes time. This IoT Based Smart Grid is able to send the power consumption limit in user's mobile phone by massage. This Grid divides its schedules two parts in a day which one is peak hour, another one is Off-peak hours. If any user uses more than its limit then IoT sends a notification. Any emergency situation before disconnecting energy, power Grid sends a text for alert Via IoT. If anyone needed some extra power then Grid send will the unused power on this line.

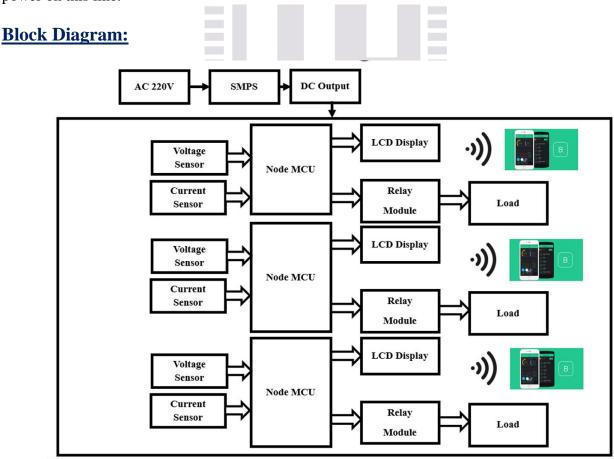


Figure: Block Diagram of IoT Based Smart Multifunctional Grid System



## **Required Instrument:**

- SMPS
- Node MCU
- LCD Display
- Voltage Sensor
- Current Sensor
- Relay
- PCB Board.
- Jumper Wire.

#### **Advantages:**

There are many advantages of our project because of its accuracy. Some of the advantages are pointed out below:

- By using this system, it is possible to reduce human physical work.
- It's a wireless notification system which is suitable in modern technology.
- This Smart Grid is an automatic protection system from unwanted situations.
- It's easy to install this system.
- Very cost effective.

### **Applications:**

The application areas for this project in this modern and practical world are huge and some of these are given below:

eering Project Solutions.

- It can be used in Power Grid.
- It can be use Sub Station.
- It can be Use in Home & Industry.

**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.