

GSM Based Automatic Load Sharing of Distribution Transformer for Overload, Over Voltage Under Voltage Protection System

About This Project:

In this project we developed a GSM Based Automatic Load Sharing of Distribution Transformer for Overload, Over Voltage Under Voltage Protection System.

Load sharing provides sufficient protection to distribution transformer under overloaded & Overvoltage conditions. Due to overload on transformer, the efficiency drops and windings get overheated and may burn. By sharing a load current on transformer for each phase the transformer was protected. Therefore, the objective of this study was to protect transformers from overloaded conditions by sharing the load. Overloading protection means detecting problems with distribution transformer and isolating from the load. Microcontroller controller is an intelligent tool that serves as an overloading protection for distribution transformers. It has logical rules which protects distribution transformers against overloading & overvoltage conditions. In this project Overload, overvoltage, transformer load sharing all information goes to a selected mobile number by a text message.

Overloading protection for the distribution transformer can reduce around 20% of electric power interruption. Protection and overloading protection in a particular, is one of the measurement strategies to improve power system's reliability status.

Block Diagram:

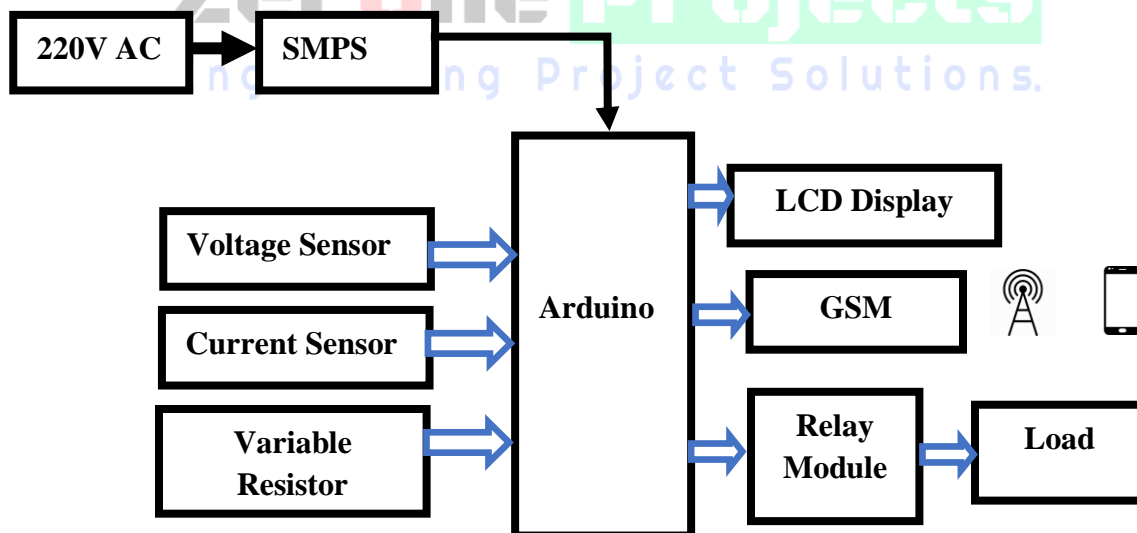


Figure: Block Diagram of GSM Based Automatic Load Sharing of Distribution Transformer for Overload, Over Voltage Under Voltage Protection System.

Required Instruments:

- SMPS
- Transformer
- Arduino
- LCD Display
- Switch
- GSM
- DC Buck/Booster Module.
- Voltage Sensor
- Current Sensor.
- Variable Resistor
- Transistor BC547
- Relay
- PCB Board
- Wires for connection

Advantages:

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

- That's will be protect the load from Overvoltage
- That's will be protect the load from unforeseen accidents.
- The user will always be able to know the status of his system through mobile messages.

Applications:

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

- The system can be used to Industry.
- It can be effectively used to Power grid & substation.
- The project can used in residential aria.

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.

Office:

Road#04, Plot#03, Sec#6/Ka,
Mirpur-2, Dhaka-1216

Web & Mail:

www.projects.zeronebd.com
projects.zeronebd@gmail.com

Contact:

01676 99 80 99
01714 80 84 02