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IOT BASED POWER MONITORING AND CONTROL

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Abstract: In this project, an overview of the Power Monitoring and Control with voltage ,current,power and temperature and Alert System is explained. The aim of this project is to save the electricity which are wasting in high power machine and also in low power machine. It can use in industries, private firm etc.The device will be installed on the machine .The current monitor and voltage monitor will monitor value of their respective terms.The alert will send to the registered mobile number and also it will trip the device whenever there is the high voltage or current. Thus we can protect the device and also we can stop the accident in the industries.

Keywords:- current monitor ,voltage monitor.

I.   INTRODUCTION

By this, we can keep an eye on the power consumption of the specific appliance in any system. In case, the device is damaged and it consuming lot of power and we are not able to detect the problem. Then the system comes into existence.

As the name suggests that ,it is the power monitoring device for the individual appliances in the system. It is IoT based power monitoring system.

With the help of the system the alert is been sent that the specific device of the system is consuming more power than the required power.

In case,if any device is consuming more power than the desired power that can harm the machine then fistly, it will the trip the circuit and send the alert on the registered mobile number.

II.   METHODOLOGY

1. The system deals with the parameter like voltage current power and temperature.
2. First 220V AC mains power supply is connected the Load through Relay and Current Sensor.
3. Current Sensor then measures the Current value and is given to the Microcontroller for monitoring purpose.
4. Microcontroller then gives it to the Driver, and if the value of current is far more or less than the bearable value of current, the the command will be sent to the Relay and the circuit will trip immediately.
5. This value is then given to GSM and we get the desired information in the form of a messege.
6. The same procedure for the voltage monitoring and controlling & for the temperature as well.
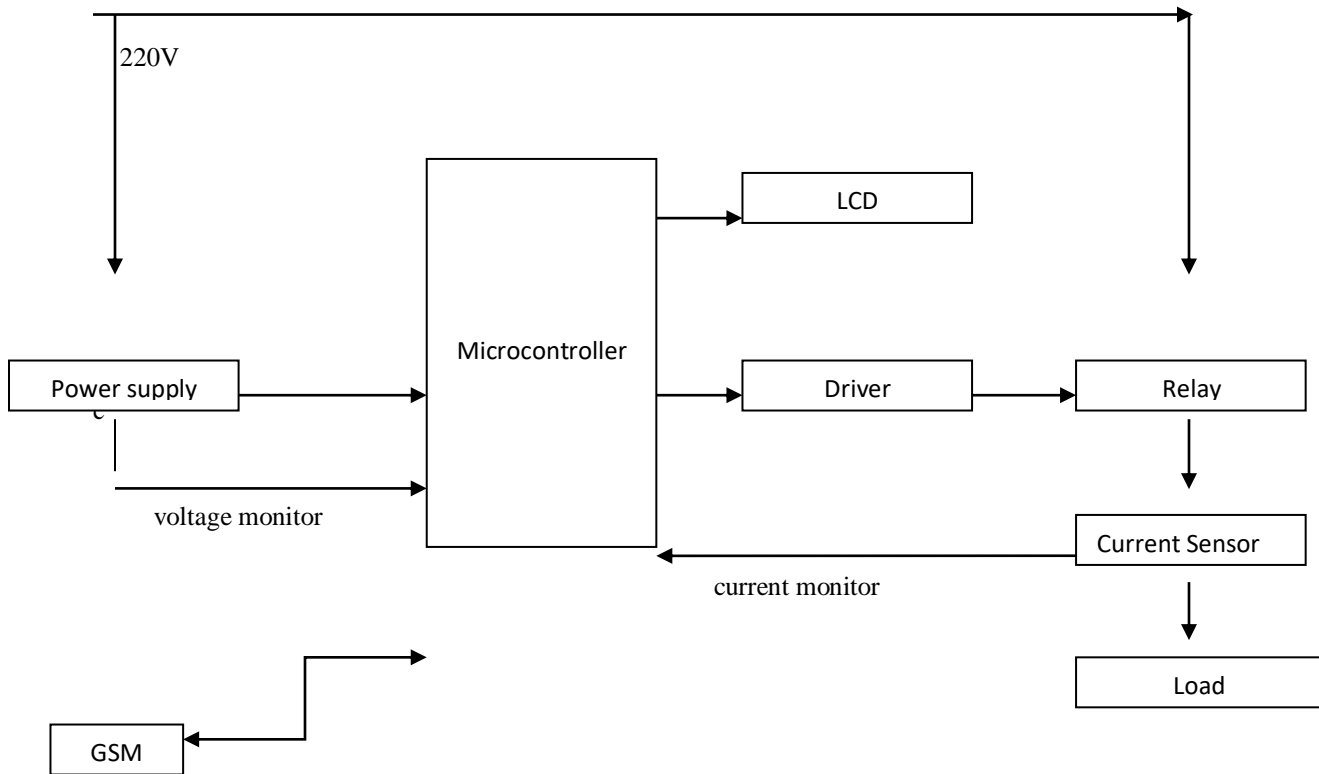
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III.   FIGURES AND TABLES

Fig 1

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IV.   CONCLUSIONS

Our project is an Iot Based Power Monitoring System which not only moitors the Power but can also control it efficiency. IT monitors the voltage and current and display it to the LCD screen and also sends a message to the operator through GSM. Once the voltage and current will outomatically trip sown. Even if the temperature of the appliance exceeds the also the circuit will trip.

Hence we have a longer operating period of our appliances and eventually we can save power which also cuts down the cost (Electricity bill).

A couple of attributes of the system can be enhanced, To increase more human interference. We can add other sensor like humidity etc. By this we can make machine more reliable for humans to use.

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