Smart City and Maximum Demand Controller

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ABSTRACT

This project smart city and maximum demand controller is introduce to be operated as a demand controller by using arduino controller to save the energy device used to save and consumption of heat and electricity. This project help to used reduce excess amount of device makes the mechanical for human being use. This project help to increase market value of electrical and mechanical equipment for the working for the industrial purpose.

Keyword: - *Arduino microcontroller, current sensor, IR sensor. POT, Power supply, LCD, Relay etc.*

1. INTRODUCTION-

Now a days in every industry there are lots of machineries, equipments. For each machine there is separate operator and for them there are lot of complications and difficulties for controlling the machine. The emergency to off the supply of the machine which is difficult due to loss time to off the supply. In such case of need a device which will of the machine very easily our project "ENERGY SAVER" will satisfy condition. Battery arrangement is not provided in case of load shading.

This project used thermal overload protection; if the temperature of the transformer is increase the limited value then transformer urgently disconnected the system. The circuit sense the temperature of transformer it mean work. This circuit control the temperature of transformer and his temperature is normal ten connect the circuit of the system .In this project the maximum demand control by manually in different forms, but in these project the purpose of control of maximum demand used in human activity there for by using a controller that is arduino. In these paper used arduino controller.

1.1 Maximum demand-

In power station it is the largest demand of the load on during a given period. In power station load increases from time to time. The maximum of all the demand that have to occur during a same period is the maximum demand.

1.2 Arduino-

Arduino is open source hardware .Arduino is an open source electronic component and easy to used The hardware reference design of distributed under the cerative , attribution share a like 2.5 license and are available website on Arduino. Layout and protection files her same version of the hardware are also available.
Features of Arduino:-

- 32 bit
- 5v regulator / operating voltage 5v.
- 16 MHz crystal oscillator
- Flash memory 16kb/(32kb AT mega 328)
- 14 digital input output pins
- Input voltage
- 6 analog input pins

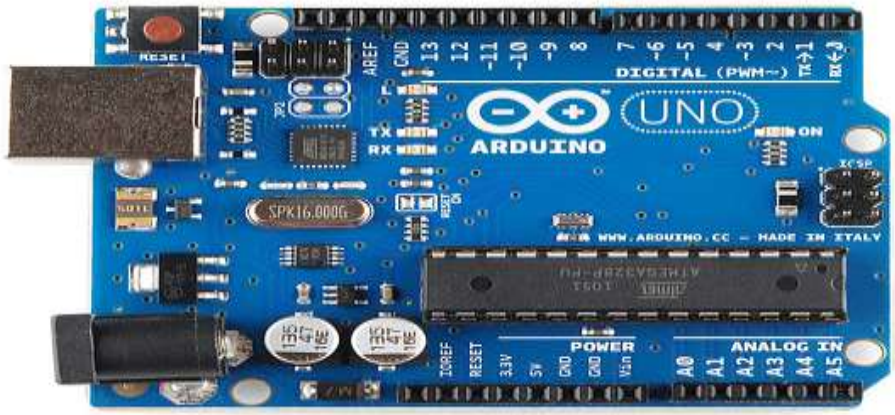

Fig- Arduino kit

2. Power Supply-

In every power electronic circuit power supply is required. The proper working of every component, the limited value of voltage and current to be supplied to it. If the power increases to its limit, it can be fluctuate.

2. Black Diagram-

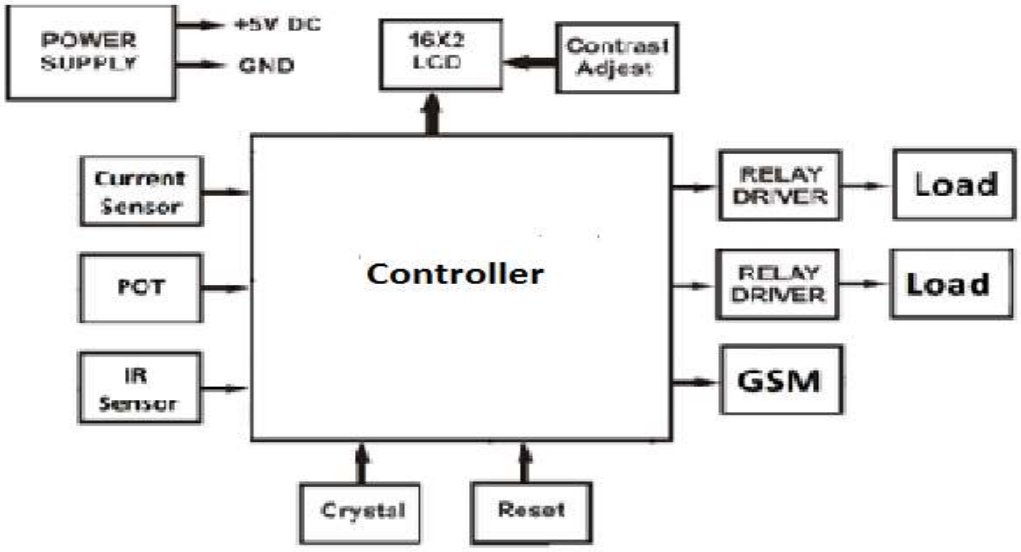

Fig .2: Block Diagram

2.2 Project Specification-

- Arduino
- 5v DC power supply
- IR sensor
- Global System Module
- Relay
- LCD
- POT
- Current Sensor

2.3 Software required-

- Printed circuit board.

3. Advantages-

- Low cost.
- Less power consumption.
- Simply upgradable.

4. Disadvantages

- Design of circuit complexity and higher cost.

5. Application-

- Electricity board and rural city.
- Industry.
- University, Colleges, Office and Government sector

6. Future scope-

- We can the use Wi-fi system to control the power supply.

7. Conclusion-

Design and implement of project the great practical experience. This project increase our ability to work as group and it help us in future life but face the several problem because of unavailability of quality goods and technical support and experience.

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