

## POWER STATUS INDICATION USING GSM

### AIM:

Design and Development of Power Status Indication using GSM.

### PURPOSE:

Power generation and distribution is very complex process. But fault in any segment reflects in various things. Because now a days everything depends on power. So many houses and industries utilizing power. Lot of wiring involved in power distribution. Fault in power lines occur because of shortage and any physical damages. Monitoring of AC power is very important to take immediate preventive actions. To provide this kind of feature we propose system like power status indication using GSM.

### DESCRIPTION:

This project includes GSM (Sim800C) module, which is connected to Arduino through UART. Buzzer will be connected to Arduino digital Pin. Step down transformer and 5V regulator circuit can monitoring AC power status and converts AC power to DC.

### WORKING:

Arduino continuously reads AC power status. If AC power ON then regulator generates 5v output. If AC power OFF then regulator generates 0v output. This information will be displayed on LCD. Buzzer sound will come when AC power OFF.SMS will be sending to registered mobile number when power status changes. User can get status of AC power at any point of time by sending request SMS to Arduino.

## TECHNICAL SPECIFICATIONS:

### HARDWARE:

|                 |   |                   |
|-----------------|---|-------------------|
| Microcontroller | : | Arduino Uno       |
| Crystal         | : | 16 MHz            |
| LCD             | : | 16X2 LCD          |
| GSM             | : | SIM800C           |
| AC Power Sensor | : | Opt-Coupler       |
| Buzzer          | : | 5V DC             |
| Power Source    | : | 12v 2 amp Adaptor |

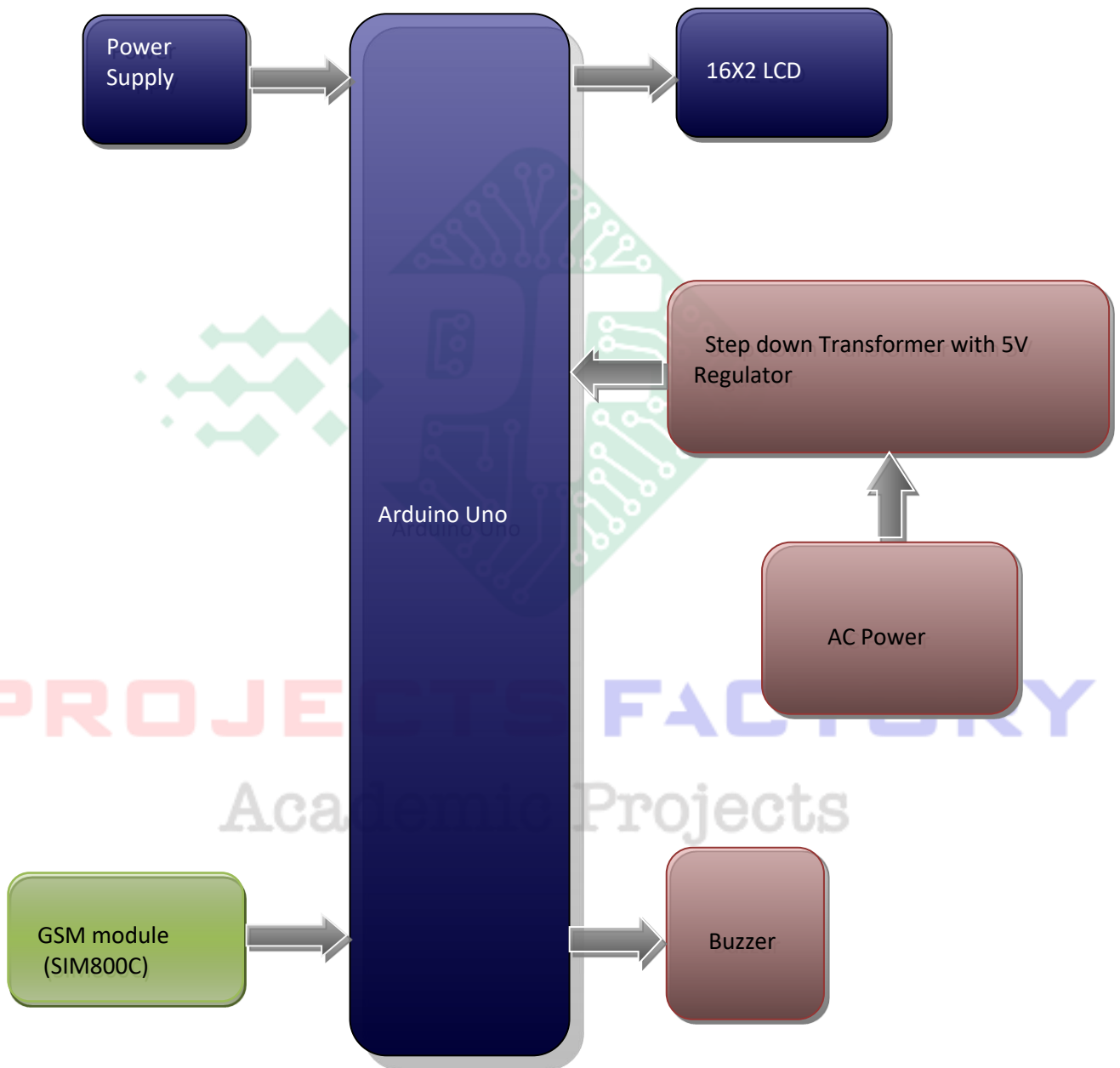
### SOFTWARE:

Arduino IDE  
Proteus based circuit diagram

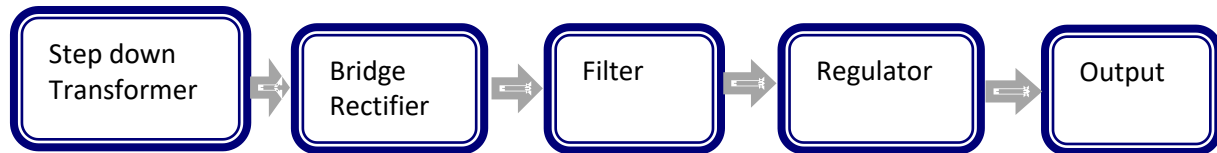
### APPLICATIONS:

- Electricity Department
- Industrial power monitoring
- Transmission lines
- Power plants

**BLOCK DIAGRAM:**



## POWER SUPPLY BLOCKDIAGRAM:



## INTERFACES COVERED:

- We have covered GSM (SIM800C) module interfacing
- AC power detection circuit

**PROJECTS FACTORY**  
Academic Projects