**Abstract**

Considering the problem of generation of the ac supply we can design a system which can utilize the solar power. Due to the usage of solar power for home appliances will reduces the usage of ac mains. This system results into the efficient use of renewable energy. This system will be used to overcome the problem of load shedding and reducing the electricity bills.

The system consist of solar dc power can be converted into ac power using the solar micro grid inverter. The synchronized output is given to the microcontroller and the source of supply will be selected automatically according to the requirements of load and current status of the sources. Advanced facility like GSM will allow the user to control various appliances just through a message. Daily report of usage of power through individual source will be given to the user by a text message. Various parameters like voltage, current, power consumption will be displayed on a LCD to give the notification of current status of the system.

**Key words:** *Solar, GSM, AC mains, microcontroller, LCD.*