# PC BASED ELECTRICAL LOAD CONTROL

ABSTRACT

The aim of this project is to control the electrical appliances through a personal computer (PC). For example, theatre lighting can be centrally controlled form the PC for better stage management. Presently, they are manually managed which makes it difficult to coordinate the lighting with the respective scene. With this system, one can control the electrical appliances ON/OFF by just being seated at one place using a PC.

This system is integrated with the electrical loads and also connected to the PC where centralized control takes place. It uses an RS-232 protocol from the microcontroller to communicate with the PC. To turn on/off the appliances, we use Hyper Terminal on PC. Once the connection is established with the PC, then the system starts working. The microcontroller used in this project belongs to 8051 family.

This project can be further enhanced by implementing a GUI based control panel on the PC with appropriate embedded software. The intensity control can also be incorporated using power electronics devices.

Note: **The project works only on operating systems having hyper terminal (E.g. Windows XP). The computer must have a RS232 serial port.**

BLOCK DIAGRAM
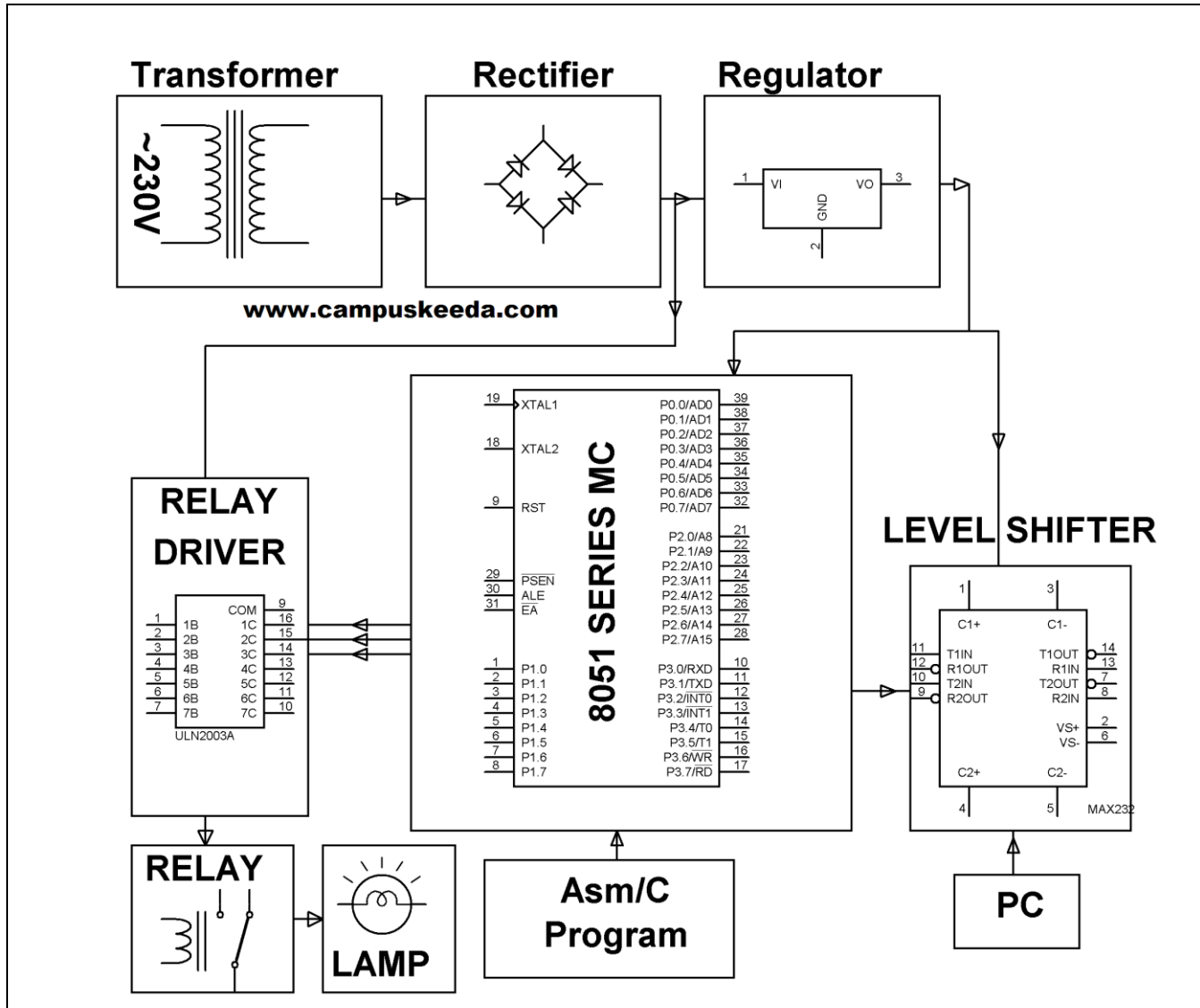
HARDWARE REQUIREMENTS:	SOFTWARE REQUIREMENTS:
8051 series Microcontroller, Level Shifter IC, DB Connector, Relays, Relay Driver, Transformer, Diodes, capacitors, Resistors, LED, Crystal, Lamps.	Keil compiler Language: Embedded C or Assembly