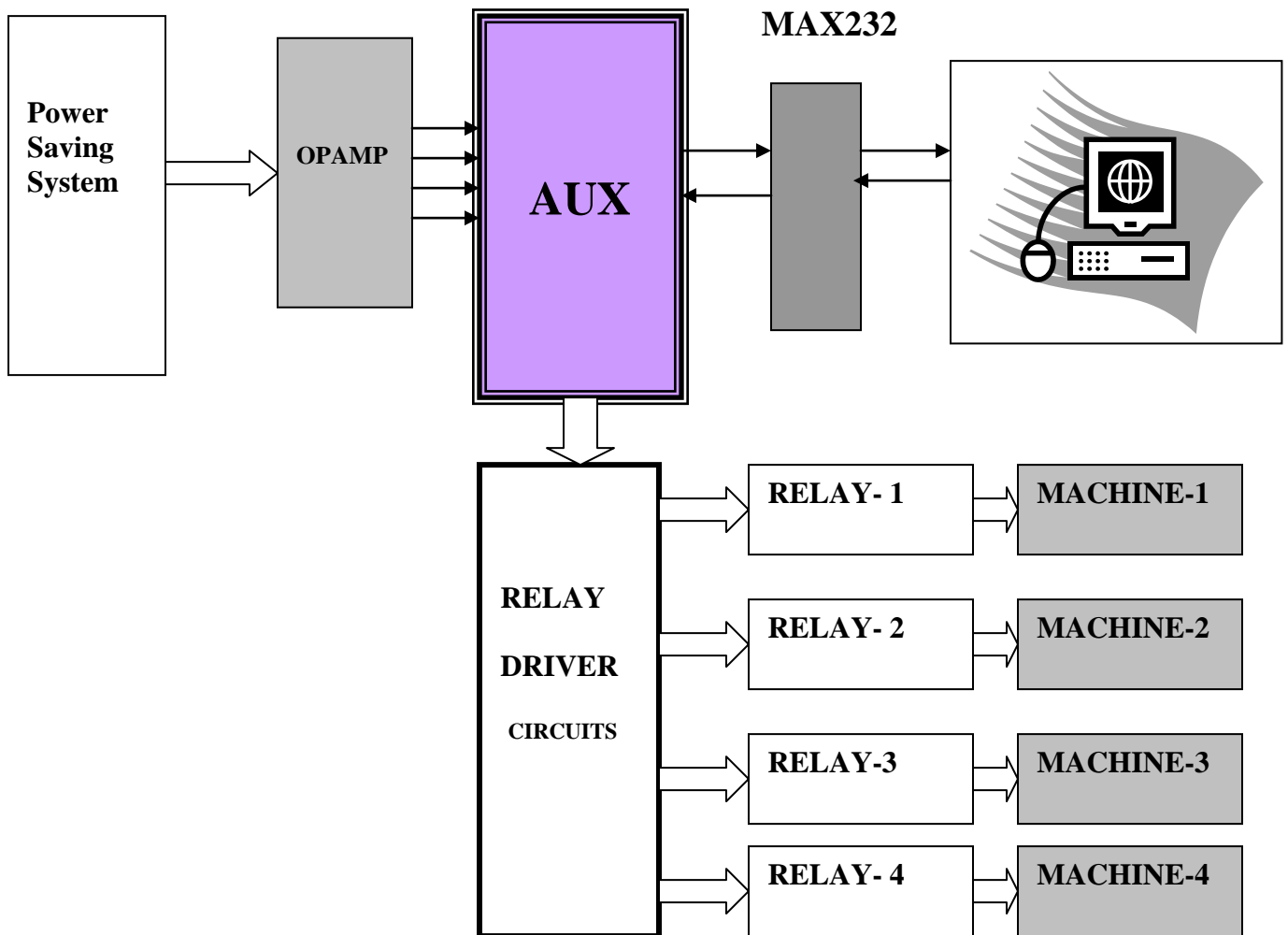


Automatic Energy Management Systems

Aim:

This system is used to control the power and save the energy for production.
(Industrial Automation).



Description:

This Monitoring and Control system having four two different modules,

- 1) Controller
- 2) PC

1) **Controller:** Which is divided into two different modules,

- a) Serial Communication
- b) ADC for four machine power reader
- c) Relay/machine control

2) **PC:**

This is divided into three modules,

- a) RS232 communication,
- b) Control and communication,
- c) Display module

We are using opamp to control the power consumed by the machine to digital data's. micro controller to pc via RS232 to converted by max232 and relay driver to control all the relays for load when micro controller requested given the power low.

Criteria:

The powers limited to 4 machines are 60Watts / month.

Calculation is done for every 10 days if it exceeds 20 Watts. Any one of the machines should get tripped in order to equalize the power consumption.

The remaining machine will run till the power gets equalized for 10 days.

This process continues for every 10 days.

Input for C coding

Input:

The power consumed is sent from micro controller to pc

Output:

Which machine should get tripped to micro controller through RS232 communication?

Displays:

Machine number

Status, starting time

Total days, total power consumed

Option to select which machine should get tripped.

Select Machine to get tripped,

- 1. Machine 1
- 2. Machine 2
- 3. Machine 3
- 4. Machine 4