

This document contains text automatically extracted from a PDF or image file. Formatting may have been lost and not all text may have been recognized.

To remove this note, right-click and select "Delete table".



EXPERT SYSTEMS AND SOLUTIONS

48, North Street, Arananarai, Perambalur, Tamil Nadu, India.

Email ID: expertsyssol@yahoo.com,

Website: www.researchprojects.info

Phone: 9952749533,

EMBEDDED BASED INDUSTRIAL AUTOMATION

SYNOPSIS

All industrial loads are controlled individually through manual operation. As a consequence there is a probable chance of wastage of power through manual mishandling and also industrial accidents.

Our project "EMBEDDED BASED INDUSTRIAL AUTOMATION" is to automate the tripping of loads during over voltage and under voltage conditions, non-critical loads when maximum demand condition arises. Power factor correction, which plays a vital role in any industry, has also been automated. Controls of illumination level, water level, and temperature level have been incorporated. In industries certain equipments are operated only by experienced person to avoid accidents and mishandling. Bearing this in mind, code lock and programmable load as far as scheduled operation is concerned, are implemented. Automatic switch off of all loads and arrangements for simultaneous on/off of lighting loads when a door is opened/closed, in certain areas (especially goodowns) are also included.

The significant feature of our project is a single microcontroller chip, PIC16F8XX, carries on all the above automations. Peripheral Interface Controller (PIC) is an output of the "MICROCHIPS". Flash memory is an outstanding feature of these controllers, which is not available in other types of controllers. Other features are brown out reset, I/O port expansion and working temperature compatible to industrial areas. This project can be implemented using fuzzy logic control also.

EXPERT SYSTEMS AND SOLUTIONS

48, North Street, Aranarai, Perambalur, Tamil Nadu, India.

Email ID: expertsyssol@yahoo.com,

Website: www.researchprojects.info

Phone: 9952749533,

EMBEDDED BASED INDUSTRIAL AUTOMATION

SYNOPSIS

All industrial loads are controlled individually through manual operation. As a consequence there is a probable chance of wastage of power through manual mishandling

and also industrial accidents.

Our project “EMBEDDED BASED INDUSTRIAL AUTOMATION” is to automate the tripping of loads during over voltage and under voltage conditions, non-

critical loads when maximum demand condition arises. Power factor correction, which

plays a vital role in any industry, has also been automated. Controls of illumination level,

water level, and temperature level have been incorporated. In industries certain equipments

are operated only by experienced person to avoid accidents and mishandling.

Bearing this

in mind, code lock and programmable load as far as scheduled operation is concerned, are

implemented. Automatic switch off of all loads and arrangements for simultaneous on/off

of lighting loads when a door is opened/closed, in certain areas (especially goodowns) are

also included.

The significant feature of our project is a single microcontroller chip,

PIC16F8XX, carries on all the above automations. Peripheral Interface Controller (PIC) is

an output of the “MICROCHIPS”. Flash memory is an outstanding feature of these controllers, which is not available in other types of controllers. Other features are brown

out reset, I/O port expansion and working temperature compatible to industrial

areas. This project can be implemented using fuzzy logic control also.