**INDUSTRIAL PARAMETER MONITORING AND PROTECTION**

**AIM:**

The main aim of the Project is to develop a Micro controller based Parameter Monitoring System for the industries which collects the data from different sensors and which are displayed on the LCD.

**PURPOSE:**

The main purpose of this project work is to monitor different parameters of the industries and to display those parameters on the LCD.

**METHODOLOGY:**

**BLOCK DIAGRAM:**

**MICRO**

**CONTROLLER**

**POWER SUPPLY**

**TEMPERATURE**

**SENSOR**

**VOLTAGE**

**SENSOR**

**ADC**

**CURRENT**

**SENSOR**

**RELAY**

**LOADS**

**LCD**

**POWER SUPPLY:**

**Filter**

**Circuit**

**Bridge**

**Rectifier**

 **Step Down**

**Transformer**

**Regulator section**

**DESCRIPTION:**

 Normally most of the industry loads are burning because of over load; hence by incorporating monitoring and control circuits, life of the devices can be increase. This project is to monitor the occurrence of any faults in industries without any human interface. Here with the help of sensors we are monitoring the different parameters from different channels. Here we are using three sensors like current, voltage and temperature which will measure the current, voltage and temperature of the loads respectively. Sensors will produce analogical data but controller will not understand this data so here ADC is used convert the data from analog to digital. Output of the ADC is given to the microcontroller, controller process this data and compares with the predefined data and whenever the values exceed the predefined data then automatic it will be switch off using Relay. The data which is related to the particular sensor are displayed on the LCD.

**SOFTWARE USED:**

1. Embedded C
2. Express LCDB
3. Keil IDE
4. Uc-Flash or ISP

**HARDWARE USED:**

1. Microcontroller
2. Power supply
3. LCD
4. MAX 232
5. Voltage Sensor
6. Current Sensor
7. Temperature Sensor
8. ADC
9. Relay
10. Loads

**RESULT:**

 Hence, by using this project, the data is collected by the Control unit. That data is displayed on LCD.