

CHAPTER 1

INTRODUCTION

SCADA (Supervisory Control and Data Acquisition) is a type of industrial control system. Industrial control systems are computer controlled systems that monitor and control industrial processes that exist in the physical world.

We have designed and developed a project called SCADA FOR POWER PLANT in Labview. Using Labview software we have designed the VI. Labview is a graphical programming language that uses icons instead of lines of text to create applications. In Labview, you build a user interface with a set of tools and objects. You can purchase several add-on software toolsets for developing specialized applications. All the toolsets integrate seamlessly in Labview. One such type of LABVIEW application is that, SCADA FOR POWER PLANT. We will be using serial communication in our project, the microcontroller and PC interface through USB data cable. This type of communication finds its application in process industries, residences, offices, Power plant, industrial automation, etc. For example, in an industry if any parameter like current, voltage, speed, power factor, and frequency these values are monitored and displayed on PC through serial communication. Here by using LABVIEW software to create front panel in that front panel we have to establish serial communication using VISA card in Labview to communicate between the device. The VISA source we have to select the serial port which port we are going to use. Through Labview we have to set the baud rate for data to get microcontroller. And we give to set value for speed through LABVIEW with help of serial communication. The microcontroller receives the value through serial communication. The set values are displayed on LCD in that microcontroller. According to this set value the microcontroller gives parameters like voltage, current, speed, frequency, power factor, through LABVIEW with help of USB data cable we can monitor this parameter and displayed on LABVIEW front panel.

1.1 Features

- Hermetically sealed leaded glass SOD27 (DO-35) package.
- High switching speed: max 4ns.
- General application.
- Continuous reverse voltage: voltage maximum 75v.