
INDUSTRIAL DATA LOGGER USING GSM

ABSTRACT

This project is aimed to design a data logger system using which the industrial parameters such as temperature, Humidity, fire and light can be monitored. A GSM technology will be used in this project for wireless communication as it is cheap and simple to implement.

A GSM modem provides the communication interface. It transports device protocols transparently over the network through a serial interface. A GSM modem is a wireless modem that works with a GSM wireless network. This GSM Modem can accept any GSM network operator SIM card and act just like a mobile phone with its own unique phone number. Advantage of using this modem will be that you can use its RS232 port to communicate and develop embedded applications. Applications like SMS Control, data transfer, remote control and logging can be developed easily. The modem can either be connected to PC serial port directly or to any microcontroller.

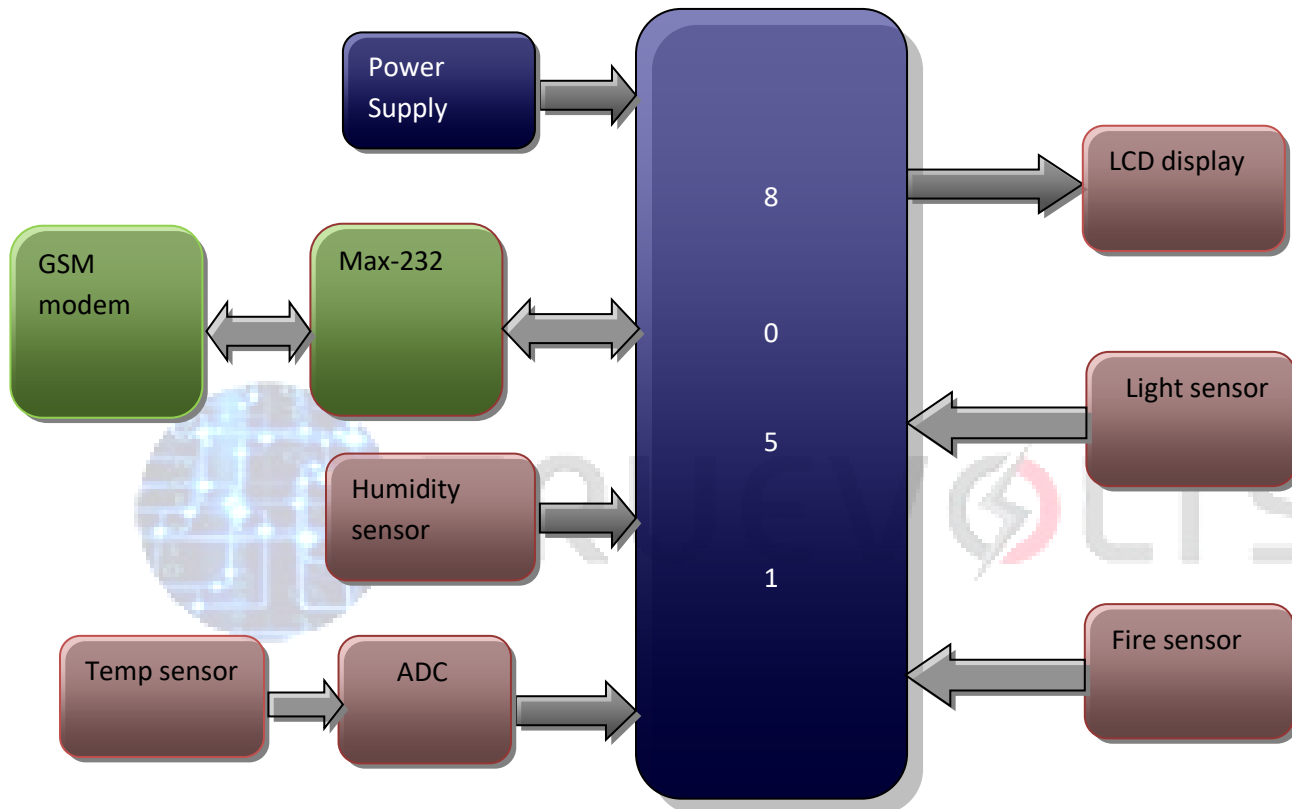
This project is designed in such a way that A GSM modem is interfaced to the controller using serial communication along with a temperature, fire, and humidity and light sensors. The temperature sensor will be interfaced to the controller through an ADC to convert the analog value sensed into the digital value. The microcontroller continuously monitors the status of the sensors. Whenever the user wants to read the data from the sensors he has to send a predefined message to the modem. The modem receives the predefined messages and intimates the same to the microcontroller. Now, it is the job of the microcontroller to read the values from the corresponding sensors process it and send the requested values to the user mobile. A 16X2 LCD will be interfaced to the controller to display the values of the sensors.

This project uses regulated 5V, 500mA power supply. 7805 three terminal voltage regulator is used for voltage regulation. Bridge type full wave rectifier is used to rectify the ac output of secondary of 230/12V step down transformer.

APPLICATIONS:

- Industrial applications
- Household applications

BLOCK DIAGRAM:



POWER SUPPLY BLOCKDIAGRAM:

