

Air Quality Monitoring System

INTRODUCTION

- ❖ Pollution
- ❖ Traffic
- ❖ Industries
- ❖ Increase in vehicles
- ❖ Lack of Data
- ❖ Health Problems



LITERATURE SURVEY



Air Quality Monitoring system at National Lab



Indoor air quality checking devices in US

Aim and Objectives

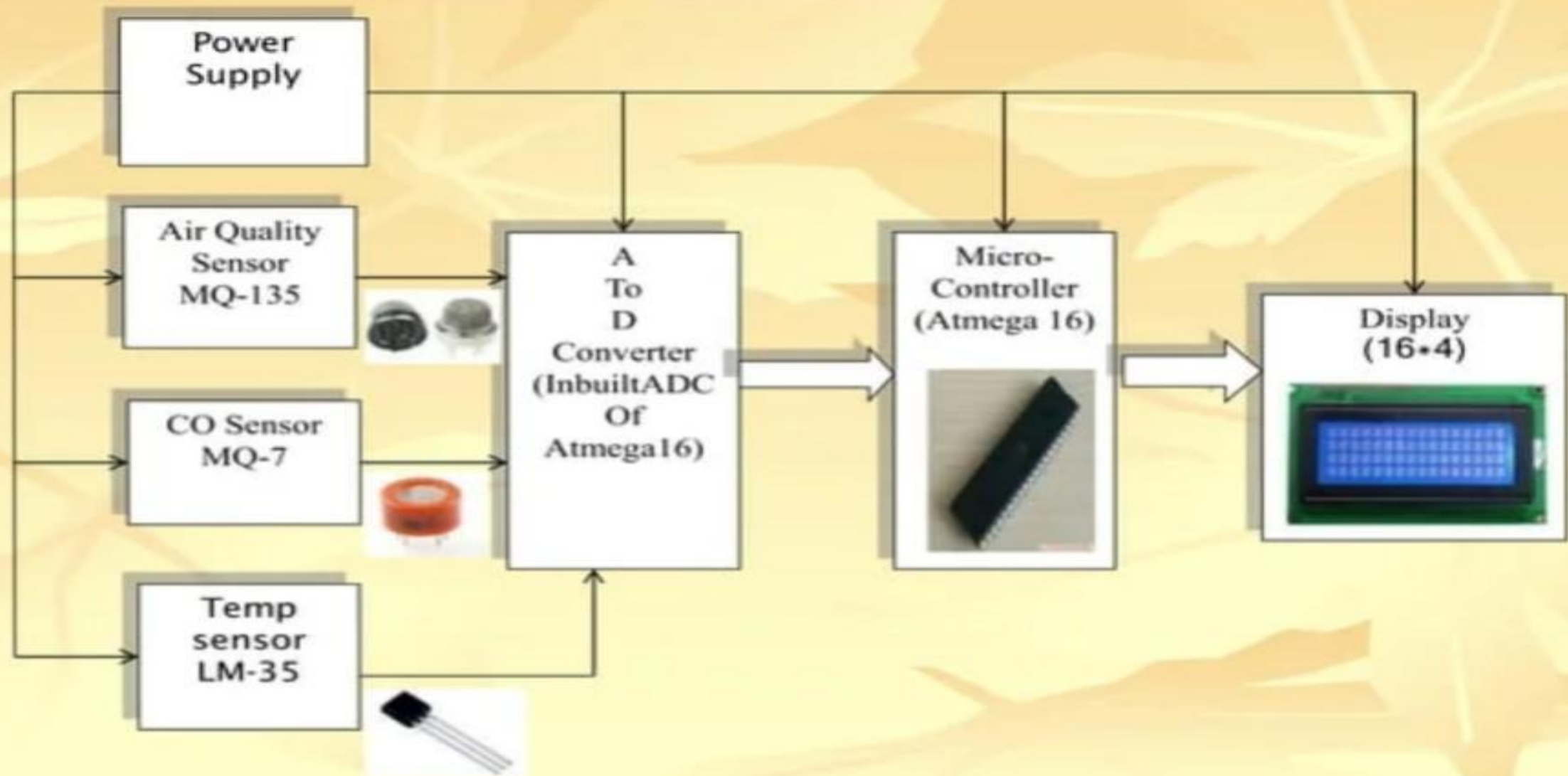
- ❖ To create a tool which will monitor the quality of air of our environment.
- ❖ Content of different gases present in air or area around us.
- ❖ Display the data on LCD.

PROBLEM STATEMENT

Design a tool which will-

- 1) Sense quality of air and display it in the form of percentage.
- 2) Sense how much Carbon Mono-oxide(CO) is present in air and display in the form of percentage.
- 3) Sense the temperature and display it in degree celcius

PROPOSED BLOCK DIAGRAM



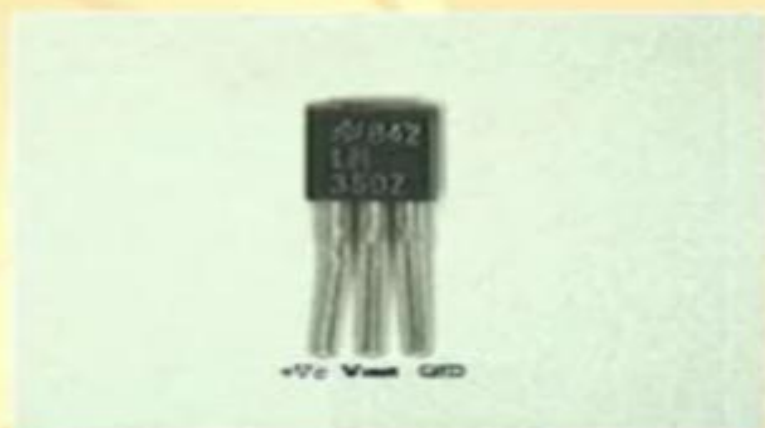
PRINCIPLE OF WORKING

- ❖ Project's basic principle of working is the sensing of data from the sensor .
- ❖ Convert the analog (voltage) data into digital form.
- ❖ Process the digital data and display it on LCD.



MQ 135

MQ 7



LM 35

ADVANTAGES

- ❖ Sensors are easily available .
- ❖ Detecting a wide range of gases, including NH_3 , NO_x , alcohol, benzene, smoke and CO_2 , CO etc
- ❖ Simple, compact & Easy to handle .
- ❖ Sensors have long life time & less cost.
- ❖ Simple Drive circuit.
- ❖ System is Real time.
- ❖ Operating voltage : 5 volt, -20°C to $+50^\circ\text{C}$
- ❖ Quality of air can be checked indoor as well as outdoor.
- ❖ Visual output.
- ❖ Continuous update of change in percentage of quality.

APPLICATIONS

- ❖ Roadside pollution Monitoring .
- ❖ Industrial Perimeter Monitoring.
- ❖ Site selection for reference monitoring stations.
- ❖ Indoor Air Quality Monitoring.
- ❖ To make this data available to the common man.





Thank You