

IOT VEHICLE PARAMETER MONITORING SYSTEM

AIM:

Design and development of IOT vehicle parameter monitoring system using Arduino.

PURPOSE:

Now a day vehicles are very important of each people and part of daily routine. For commercial vehicles, management should maintain vehicles from remote place. For this, management should monitor vehicle parameters from remote places. But regular vehicles don't have that kind of features. So that here we solution like IOT vehicle parameter monitoring system using Arduino.

DESCRIPTION:

This project includes WIFI (Esp8266/IOT module) which is connected to Arduino through UART interface. LM35 (Temperature Sensor), MQ2 (CO level) and Fuel level sensors are connected to Arduino through Analog and Digital IO pins.

WORKING:

Lm35 (Temperature) sensor reads vehicle engine temperature. Heavy Heat Causes engine damage. Mq2 (CO) sensor reads vehicle CO emission. Heavy CO emission in vehicle indicates bad injector. Fuel level sensor indicates fuel level in vehicle. These sensors data will be displayed on LCD continuously. WIFI (ESP8266/IOT) module sends sensor data to server continuously. User can see data in IOT server from anywhere. In abnormal condition Arduino gives beep sound.

TECHNICAL SPECIFICATIONS:

HARDWARE:

Microcontroller	:	Arduino Uno
Crystal	:	16 MHz
LCD	:	16X2 LCD
WIFI	:	Esp8266 (IOT module)
Temperature Sensor	:	LM35
CO Sensor	:	MQ2
Level sensor	:	Floating Ball
Buzzer	:	5v DC
Power Source	:	12v 2 amp Adaptor

SOFTWARE:

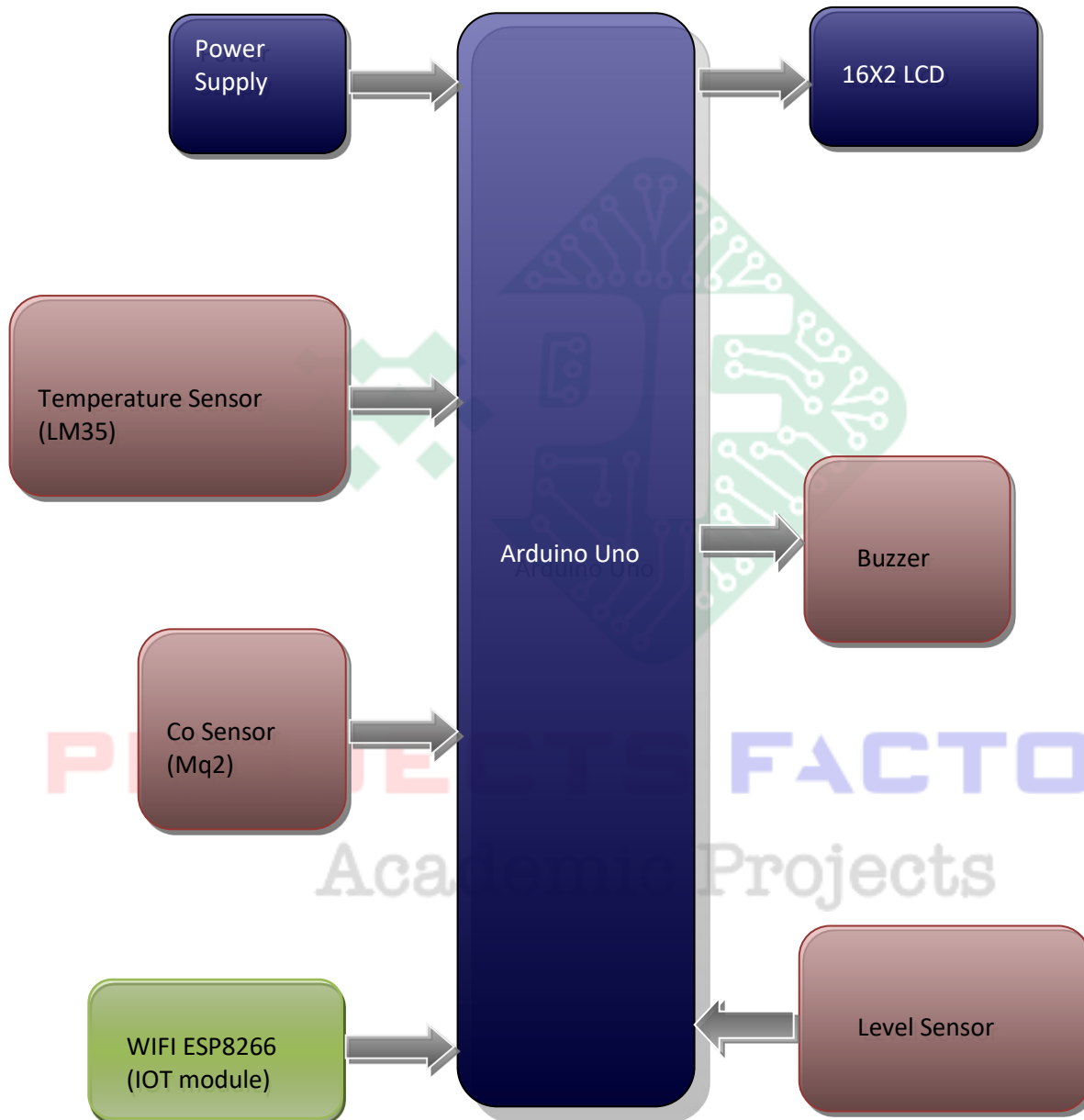
Arduino IDE

Proteus based circuit diagram

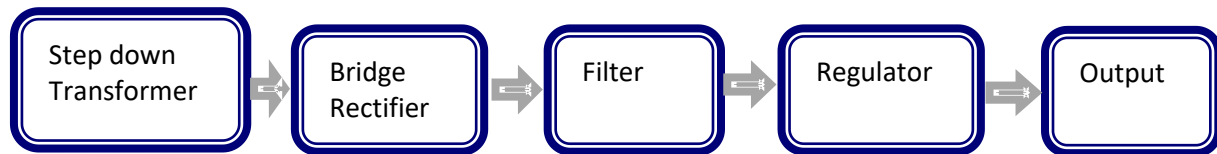
APPLICATIONS:

- Vehicles
- Transports

BLOCK DIAGRAM:



POWER SUPPLY BLOCKDIAGRAM:



INTERFACES COVERED:

- We have covered WIFI (ESP8266/IOT) module interfacing
- LM35 (Temperature Sensor), CO (MQ2 Sensor) and level (Floating Ball) Sensor interfacing.

PROJECTS FACTORY
Academic Projects