IOT SMART DOOR OPENER

AIM:

Design and development of IOT based smart door opener using Arduino.

PURPOSE:

Regular door opening and closing need manual physical power. It is ok when normal home doors. Where as in big size malls or industries we can't open and close manually. There are some electronic doors can be controlled by power. But those are static and can't be control from remote location. But here we have solution like IOT smart door opener using Arduino.

DESCRIPTION:

This project includes WIFI (Esp8266/IOT module) which is connected to Arduino through UART interface. DC motor connected Arduino through H-bride IC (L293d). DC motor attached with some mechanism acts like door. Here we used CD drive as door.

WORKING:

Arduino always be in command receiving mode from IOT server. When user gives command from IOT server WFI (ESP8266/IOT) module receives the signal and execute accordingly. If it is opening command then door will be open. If it is closing command then door will be close. Door status will be displayed on LCD. User can control door from anywhere using IOT server.

TECHNICAL SPECIFICATIONS:

HARDWARE:

Microcontroller	:	Arduino Uno
Crystal	:	16 MHz
LCD	:	16X2 LCD
WIFI	:	Esp8266 (IOT module)
H-Bridge	:	L293d
DC gear motor	:	100 r.p.m
Power Source	:	12v 2 amp Adaptor

SOFTWARE:

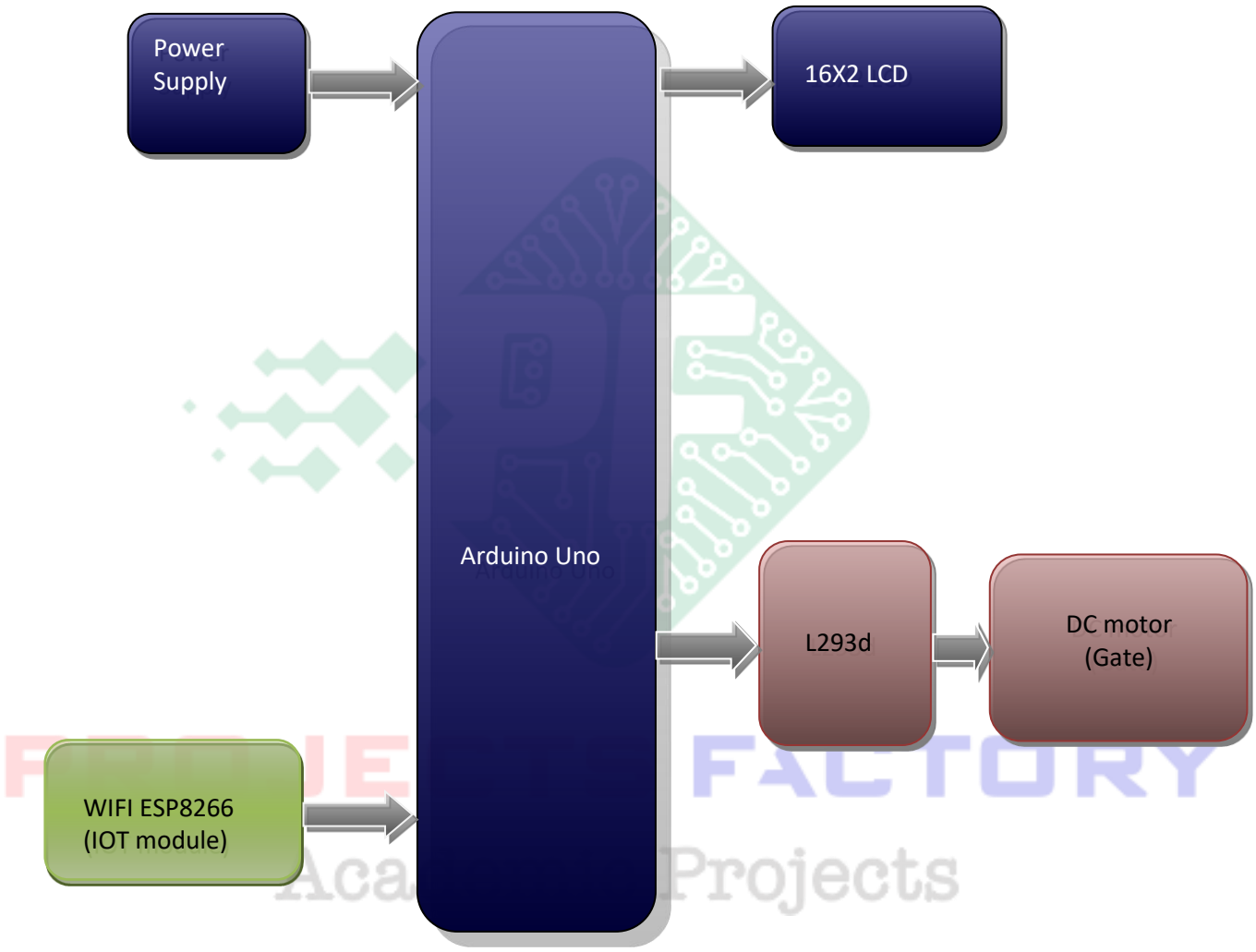
Arduino IDE

Proteus based circuit diagram

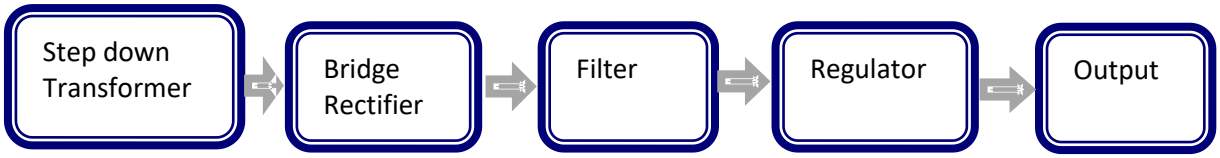
APPLICATIONS:

- Shopping malls
- Industrial Applications

BLOCK DIAGRAM:



POWER SUPPLY BLOCKDIAGRAM:



INTERFACES COVERD:

- We have covered WIFI (ESP8266/IOT) module interfacing
- L293d for DC motor