BLUETOOTH BASED INDUSTRAIL SECURITY

AIM:

Design and development of Bluetooth based Industrial security.

PURPOSE:

Security is primary concern for everyone. Especially in industries security is very important. Current security systems like static and they notified through siren. In industries so many employees working in premises in different places. Everybody has cell phones. Here we are giving notifications to Bluetooth app. Here we will propose solution like Bluetooth based industrial security system.

DESCRIPTION:

This project includes Bluetooth (HC-05) module, which is connected to Arduino through UART interface. DHT11 and fire sensors connected to Arduino digital pins. DC fan controlled by relay which is connected to Arduino digital pin.

WORKING:

In this project industrial parameters can be monitored through Bluetooth app. Temperature, Humidity and fire can be monitored. This system has two mode, manual and auto. We can set modes in Bluetooth App. If mode in auto then DC fan will be ON when fire will ON. If mode in manual then DC fan will be from Bluetooth app. We can monitor three sensor values in Bluetooth APP. Also sensor values displayed on 16X2 LCD display.

TECHNICAL SPECIFICATIONS:

HARDWARE:

Microcontroller	:	Arduino Uno
Crystal	:	16 MHz
LCD	:	16X2 LCD
Bluetooth	:	HC-05
Temperature and Humidity sensor	:	DHT11
Fire Sensor	:	IR type
Fan	:	DC 12V
Relay	:	12v DC Coil type
Power Source	:	12v 2 amp Adaptor

SOFTWARE:

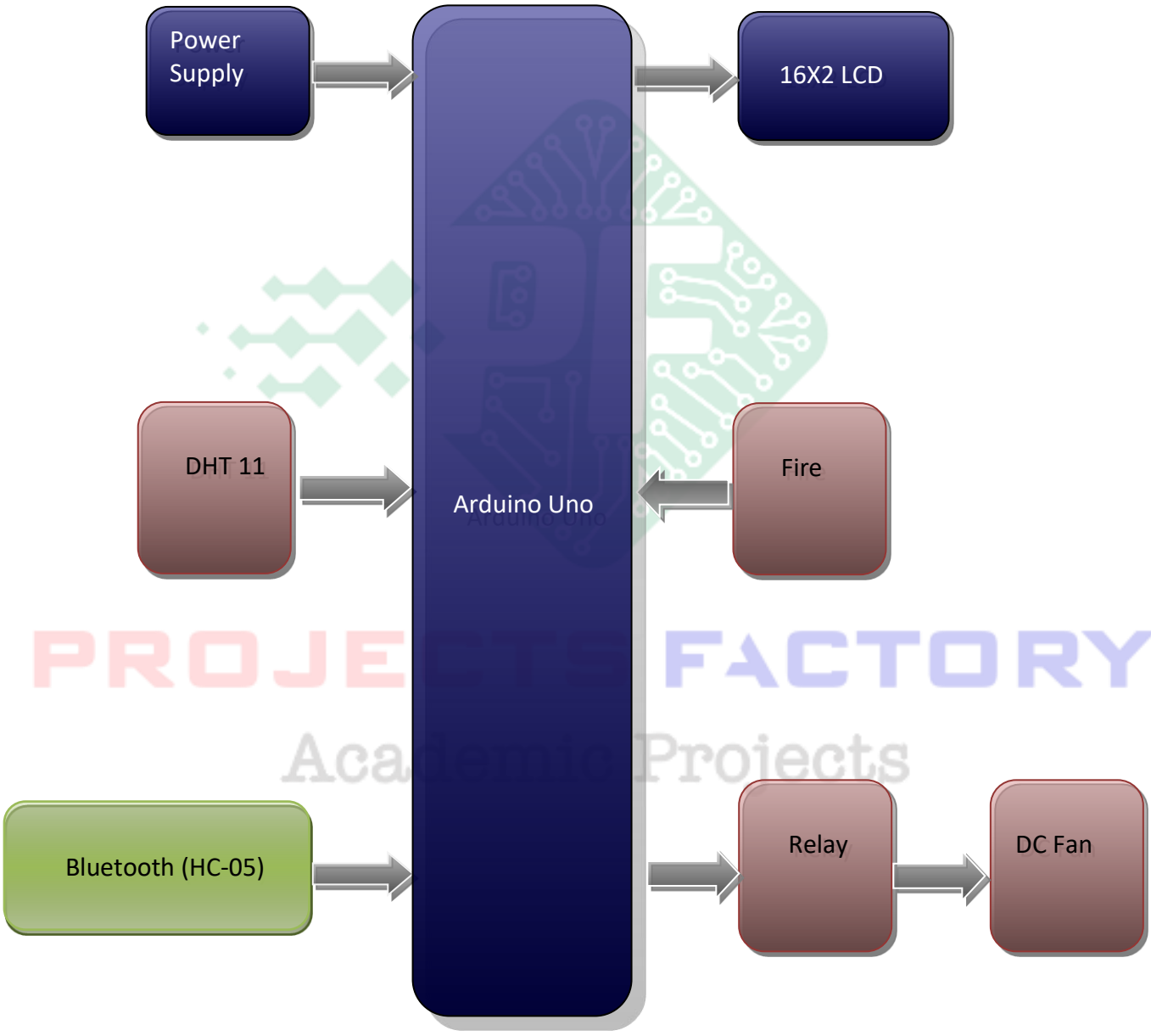
Arduino IDE

Proteus based circuit diagram

APPLICATIONS:

- Home Appliances
- Industrial Applications

BLOCK DIAGRAM:



POWER SUPPLY BLOCKDIAGRAM:

INTERFACES COVERD:

- We have covered Bluetooth (HC-05) module interfacing
- DC fan control with 12vDC relay
- DHT11 and fire sensor interfacing