REAL TIME WATER LEVEL INDICATOR WITH GSM

AIM:

Design and development of Real-time water level indicator with GSM using Arduino.

PURPOSE:

Water level indicators are more important in water maintenance systems. Water is very precious and should avoid wastages. To avoid wastages we should read level of water. It is primary parameter to read for taking any other step. There is several kinds of water level indicators available in regular market. But here we are implanting real time water level indicator with GSM. User can monitor water level of water from remote places via SMS.

DESCRIPTION:

This project includes GSM (Sim800c) module, which is connected to Arduino through UART interface. Here water levels are desecrating type. Means water level read in steps format. There are four water level steps included. Each water level lead connected to amplifier to amplify signal from water. These water level leads connected to Arduino digital IO pins.

WORKING:

Here Arduino amplifies digital signals which are coming from water level sensor leads. Whenever water level changes from one level to another level then Arduino sends SMS via GSM modem. Water level information displayed on LCD. User can get instant water level information by sending request SMS to Arduino.

TECHNICAL SPECIFICATIONS:

HARDWARE:

Microcontroller	:	Arduino Uno
Crystal	:	16 MHz
LCD	:	16X2 LCD
GSM	:	SIM800C
Amplifier	:	BC547
Power Source	:	12v 2 amp Adaptor

SOFTWARE:

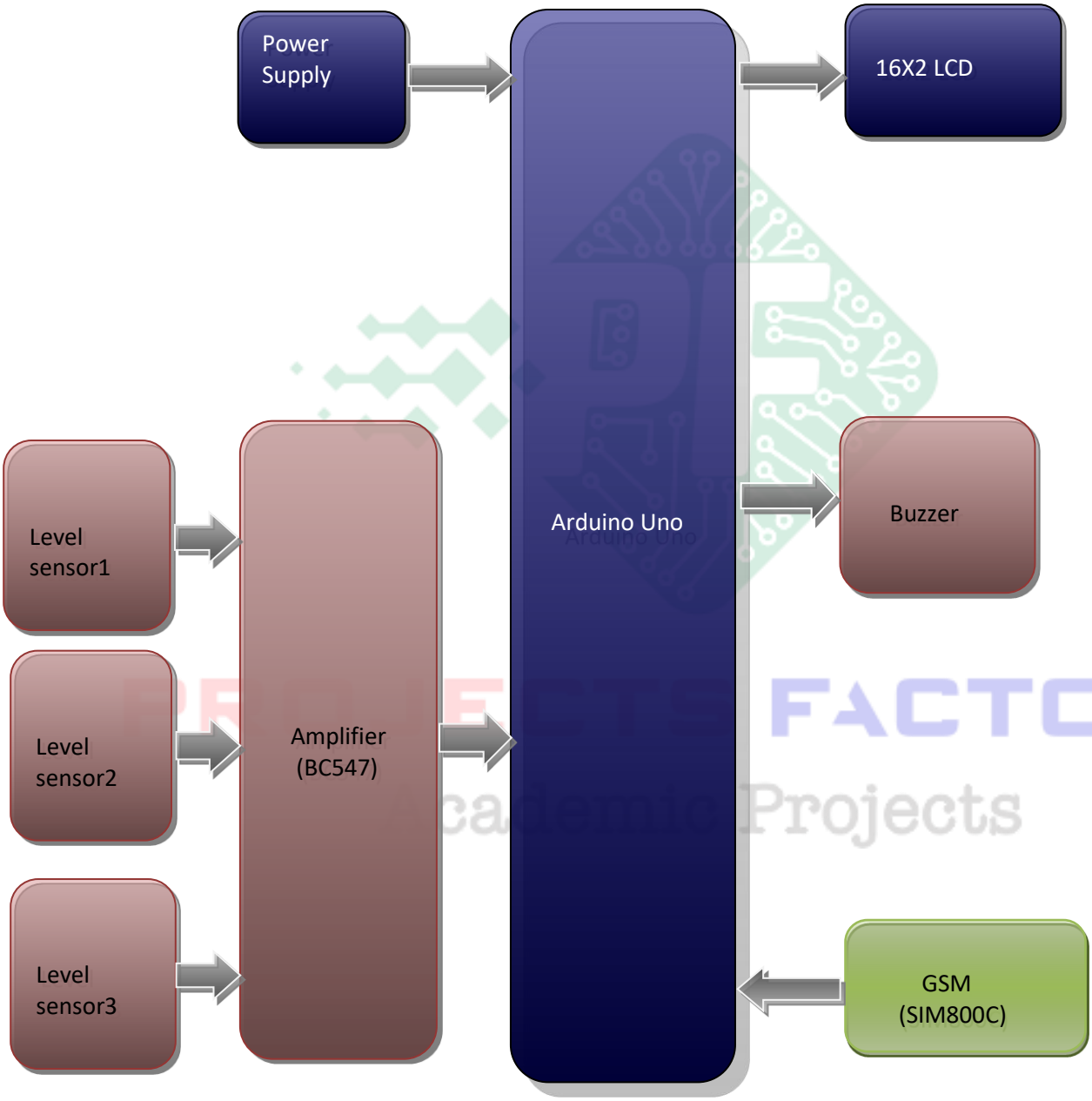
Arduino IDE

Proteus based circuit diagram

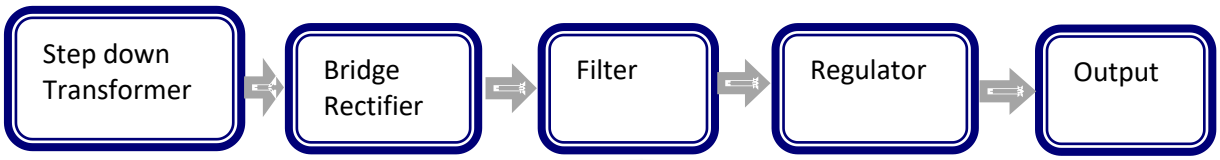
APPLICATIONS:

- Water head tanks
- Water tanks in apartments
- Ponds
- Rivers
- Tanks

BLOCK DIAGRAM:



POWER SUPPLY BLOCKDIAGRAM:



INTERFACES COVERD:

- We have covered GSM (SIM800C) module interfacing
- Water Level sensor through BC547 amplifier