Project Design Phase-II
Technology Stack (Architecture & Stack)

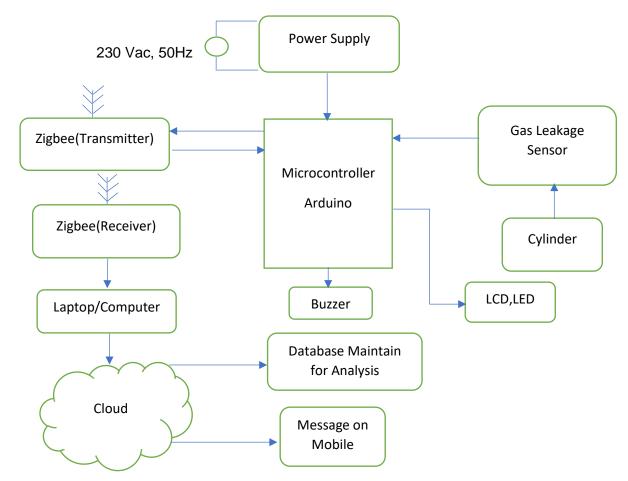| Date	06-11-2022
Team ID	PNT2022TMID06118
Project Name	Project – Gas Leakage Monitoring and Alerting System
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user order the product with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Gas Leakage Sensor	To detect the Gas Leakage	Ultrasonic Technology
3.	Buzzer	To rise the alarm	Magnetic and Piezo
4.	Arduino UNO	For Hardware Support	Open-Source Electronics Platform
5.	Power Supply	To power up the components	Batteries with High Voltage
6.	Cloud Database	Creates a database for analyzing the leakage of Data	Zigbee, Arduino Microcontroller
7.	LED	To indicate the gas leakage	PN Junction Diode
8.	LCD	To Display the Gas Leakage Level	Liquid Crystal Molecules
9.	Mobile	To send Notification Alert	Mobile Networks

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Arduino UNO with other required Components	IOT Platform
2.	Security Implementations	Immediate Detection of Gas and taking Precaution steps automatically	IOT Sensors
3.	Scalable Architecture	Architecture with Microcontroller and Cloud	Arduino UNO, Cloud Database
4.	Availability	Can be used anywhere e.g, Industries, Houses, Hospitals etc..,	IOT Components
5.	Performance	Detecting the Gas Leakage Accurately	Gas Sensor