IDEATION PHASE

LITERATURE SURVEY

PROJECT NAME	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES
PROJECT ID	PNT2022TMID19555
TEAM MEMBERS	SHEELA S VIJAY PRABU S VIGNESH KUMAR M NITHISH KUMAR S
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DEPARTMENT	COMPUTER SCIENCE AND ENGINEERING

S.No	TITLE	PROPOSED WORK	TOOLS USED/ ALGORITHM	TECHNOLOGY	ADVANTAGES/ DISADVANTAGES
1	A Mobile Gas Detector with an Arduino Microcontroller	It describes hardware synthesis for a mobile gas detector with an Arduino microcontroller. The main aim of this project is to find the dangerous zone where many stationary detectors are unpractical or too expensive. Thus, we present a self-propelled robotic gas detector.	• Arduino Mega 2560 MC, • L9110 motor driver, • 2Nos. DC motors, • Wi-Fi module ESP8266, • logic level converter, • MQ2 sensor, • HC-SR04 ultrasonic distance sensor	Internet of Things	**ADVANTAGES** • Arduino has some sound advantages, such as large user community, free and broad ranges of libraries of codes, relatively low cost components, and so forth. **DISADVANTAGES** • Its disadvantages are its small and a user has to work in a relatively small space. In many broad and multi-purpose projects, its required to look for third party sources in addition to Arduino scripts.

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2	Gas Leakage Detection and Alert System using IoT	We design and develop an propose system which include some safety factors. A safety has been a major issue in today's day to day life.	• Regulator • Rectifier • LCD Display • Gas Sensor • Wi-fi Module • Arduino UNO	Internet of Things	**ADVANTAGES** • The sensor-enabled solution helps prevent the high risk of gas explosions and affecting any casualties within and outside the premises. **DISADVANTAGES** • It is affected due to ambient light interference.

o	TITLE	PROPOSED WORK	TOOLS USED/ ALGORITHM	TECHNOLOGY	ADVANTAGES/ DISADVANTAGES
4	Gas Leakage Detector and Warning Generator	The main aim of this project is to find the dangerous zone where many stationary detectors are unpractical or too expensive. Thus, we present a self-propelled robotic gas detector. It describes hardware synthesis for a mobile gas detector with an Arduino microcontroller.	• Arduino Mega 2560 MC, • L9110 motor driver, • 2Nos. DC motors, • Wi-Fi module ESP8266, • logic level converter, • MQ2 sensor, • HC-SR04 ultrasonic distance sensor	Internet of Things	**ADVANTAGES** The sensor-enabled solution helps prevent the high risk of gas explosions and affecting any casualties within and outside the premises. The gas sensors help detect the concentration of the gases present in the atmosphere to avoid hazardous consequences like fire breakouts **DISADVANTAGES** • It has ability to detect wide range of gases.

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5	Mobile Based Gas Leakage Monitoring Using IOT	In the event that the LPG gas level crosses the edge level at that point it sends SMS to the client utilizing the GSM modem. Additionally, the LPG identifier framework turns on the ringer to demonstrate the individual close by to the framework. In the proposed framework, we actualized a framework which gives call alert along with SMS, in the wake of recognizing Gas spillage inside 30 seconds. The discovery unit is actualized utilizing MQ 2 sensor and GSM Module.	• Rectifier • Regulator • LCD Display • Gas Sensor • Wi-fi Module • Arduino UNO	Internet of Things	**ADVANTAGES** • Used in house as a LPG gas detector • It also detect alcohol so it is used as liquor tester. **DISADVANTAGES** • It is little sensitive to smoke then it is not perfectly reponse for LPG gas detection