Literature Survey

TEAM NO: PNT2022TMID08134

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S.No	TITLE	PROPOSED WORK	TOOLS USED/ ALGORITHM	TECHNOLOGY	ADVANTAGES/ DISADVANTAGES
1.	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.	• Rectifier • Regulator • 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. • The gas sensors help detect the concentration of the gases present in the atmosphere to avoid hazardous consequences like fire breakouts. **DISADVANTAGES** • It is affected due to ambient light interference.

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2.	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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3.	Gas Leakage Detector and Warning Generator	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** 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 measures toxic gases in very low concentrations. • It has ability to detect wide range of gases.

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4.	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. • The sensor has excellent sensitivity combined with a quick response time. **DISADVANTAGES** • It is little sensitive to smoke then it is not perfectly reponse for LPG gas detection • Its sensitivity depends on Humidity and temperature.

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5.	Smart gas leakage monitoring system for use in hospitals	The smart system is intended for use at hospitals. When a sudden leakage happens, the gas sensor sends a signal to the microcontroller. The controller processes a signal and send notification to other external devices attached such as LCD, buzzer and an GSM module which fighting fires in the hospital, this alarm will send it repeatedly until an accepting reply message received.	• Arduino microcontroller board • Gas sensors • Global System for Mobile Communication (GSM) Module • Pushbutton switch • Liquid crystal display (LCD) • Buzzer module • Arduino UNO software	Internet of Things	**ADVANTAGES** • Used in house as a LPG gas detector • It also detect alcohol so it is used as liquor tester. • The sensor has excellent sensitivity combined with a quick response time. **DISADVANTAGES** • It is little sensitive to smoke then it is not perfectly reponse for LPG gas detection • Its sensitivity depends on Humidity and temperature.

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6.	Sensor based Smart Automated Gas Leakage Detection and Prevention System	Liquefied petroleum gas (LPG) is commonly used for heating, cooking, automotive power, and various other uses worldwide. LPG is a particularly flammable gas, and LPG leaks cause significant incidents. The cause may arise from improper installation to the use of faulty gas cylinders.	• Arduino Uno R3 • MQ-2 Smoke Gas Sensor • Ublox NEO-6M GPS Module, • SIM800L QuadBand GPRS-GSM Module, • Buzzer • LCD Display • LED (5mm) • Transistor	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

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