Gas Leakage Monitoring and Alerting System

Year	Title	Author(s)	Technique(s)	Advantage	Disadvantage
2018	An LPG Leakage Detector System Using (IoT)	ARIF AFIZUDIN BIN MOHD ISKANDAR	MQ -2 sensor, Arduino model	This gas leakage system can be applied for household safety and many other applications in the industry. Any leakage can be recognized through the receiver module and automatically will convey the information to the user.	This gas leakage system only deducts LPG leakage. It doesn't deduct other harmful gases like butane, ethylene, methane, etc. It can't be monitored by anyone.
2018	Gas Leakage Deduction And Smart Alerting System Using (IOT)	Shital Imade, Priyanka Rajmanes, Aishwarya Gavali, Prof. V. N. Nayakwadi	Internet of Things, Gas Leakage Detector, Smart Alerting Techniques, Data Analytics	This system will be able to detect the gas in environment using the gas sensors. This will prevent form the major harmful problem.	This system only works when there is a power supply. It does not work properly when the temperature is high.
2018	(IOT)-Based Gas Leakage Monitoring And Alerting System	Rohan Chandra Pandey, Manish Verma, Lumesh Kumar Sahu, Saurabh Deshmukh	Air pollution Monitoring, gas sensors, Raspberry pi or texas module, wireless networks.	The advantage of this automated detection and alerting system over the manual method is that it offers quick response time and accurate detection of an emergency and in turn leading faster diffusion of the critical situation.	This system is not fully automatic; it needs human help to stop the gas leakage. It cannot control the gas leakage It only detect it
2019	Gas Leakage Detection and Alert System using IoT	Sayali Joshi, Shital Munjal, Prof. Uma B. Karanje	IOT, MQ5 SENSOR,ARDUINO MODEL ,GSM network	The advantage of this simple gas leak detector is its simplicity and its ability to warn about the leakage of the LPG gas. This system uses GSM technique to send alert massage to respective person if no one is there in the house and then gas leaks occurs, GSM module is there to send immediate messages to the respective person regarding the gas leak	When heavy dust, steam or fog blocks the laser beam, the system will not be able to take measurements . If the network coverage is weak, the alert message will be delayed.
2019	LPG Gas Leakage Detection and Alert System	E. Jebamalar Leavline1, D. Asir Antony Gnana Singh2, B. Abinaya3 H. Deepika	Liquid petroleum gas, Gas sensor,	LPG leakage detection is essential to prevent accidents and to save human lives. This paper presented LPG leakage detection and alert system. This system triggers LED and buzzer to alert people when LPG leakage is detected. This system is very simple yet reliable.	This gas leakage system only deducts LPG leakage. It doesn't deduct other harmful gases like butane, ethylene, methane, etc. It can't be monitored by anyone.

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2019	An IOT Based LPG Leakage Sensing and Alerting System	P. Kanaka Maha Lakshmi, P.S.G. Aruna Sri, P.Gopi Krishna	MQ5 Gas Sensor, Smart Alerting Techniques, Raspberry-pi3, Buzzer, Light Emitting Diode	This system provides alert information to the Gas agency and other mobile when gas spilling occurs. It also gives an alert indication to buzzer and LED. And also the operation of Buzzer/LED through webpage takes place.	If the network coverage is weak, the alert message will be delayed. This gas leakage system only deducts LPG leakage. It doesn't deduct other harmful gases like butane, ethylene, methane, etc. It can't be monitored by anyone.
2020	LPG Gas Leakage Detection Using (IOT)	Dr. Chetana Tukkoji , Mr. Sanjeev Kumar A. N	IOT , Arduino , Sensor LPG	The main advantage of this system is that it off the regulator knob of the cylinder automatically when gas leakage detected.	This gas leakage system only deducts LPG leakage. It doesn't deduct other harmful gases like butane, ethylene, methane, etc.
2020	Gas leakage detection and alerting system using Arduino Uno	Syeda Bushra Shahewaz, Ch. Rajendra Prasad	Arduino UNO; MQ2 Gas Sensor; GSM Modem; LCD; Buzzer.	A sensor node senses gas like CO2, oxygen, propane. The estimated range of transmission and consumption of power is obtained. The simple procedures and Arduino UNO Micro controller area used to build the sensor.	If the network coverage is weak, the alert message will be delayed. This gas leakage system only deducts LPG leakage. It doesn't deduct other harmful gases like butane, ethylene, methane, etc.
2020	IoT Gas Leakage Monitoring System Using FPGA	Amatul Munazza, Rupa Tejaswi , Tarun Kumar Reddy , Mrs. Saranga Mohan	MQ5 sensor, FPGA, ADC, UART.	The end of this project , the user can easily monitor the safety of the house or industry in case of gas leakage even from far place.	The IOT device only detect the leakage, then the leakage will controled by the human.
2021	Gas Leakage Monitoring System Using IOT	Jijusasikumar S, Kaviya K, Logida R, Chinmaya S, Sangeetha K	Gas Leakage Monitoring, Gas detection , Gas sensor , MQ - sensor, Arduino	This system displays the status of the leakage with the live tracking of the leakage with the accurate percentage, it is far better than the system that has the SMS notification because it doesn't show the live tracking of the leakage status in SMS notification system only, we get alert and not the live tracking.	This may lead to a false alarm. Due to equipment failure, the sensor needs to be checked periodically.
2021	(IOT) Based Home Safety Gas Leakage Detection And Automatioc Booking System	Dr.Suma Christal Mary.S, Dr.Josphine leela R, Dr.Ignisha Rajathi.G	GSM module, gas sensor, PIR sensor, load cell, Arduino Uno, Internet of things	This proposed system can be useful in marketing sectors like hotels, shop etc. The main intention of this work is to ensure safe and easier way of gas booking and gas leakage detection to avoid disasters that may occur due to negligence.	If the network coverage is weak, the alert message will be delayed. The leakage deduction is not accurate.

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2022	Microcontroller Based Automated Gas Leakage Detector.	Jerlou B. Sal, Arvin E. Mag-Usara, Michael P. Yujoco, Donald C. Salvador	LPG (MQ6)sensor, Arduino Uno, Alarm System	The objective of the test was to determine the contribution of the MQ-6 sensor to the protection of the home.	This sensor is only able to deduct flammable gases; it is not able to detuct harmful gases.
2022	IoT based LPG Gas Leakage Detection and Prevention System .	Abdirahman Abdullahi Mohamed, Md Wahidur Zaman, Mohammed Imtiaz, Mohamed Abdulqadr Mohamed, MD Shafiul Alam	Liquefied Petroleum Gas; LPG; MQ-6 Gas Sensor; Alarm Buzzer; LED (light); Fire or Flame Detection Sensor; Gas detection system; Arduino UNO; Fire detection.	This paper discussed a system for detecting and alerting LPG leaks. Whenever LPG leakage is detected, this device activates an LED and a buzzer to inform people. This approach is straightforward but dependable.	This gas leakage system only deducts LPG leakage. It doesn't deduct other harmful gases like butane, ethylene, methane, etc. For this, there is no message alert. If the network coverage is weak, the alert message will be delayed
2022	Gas Leakage Detection Using IoT	Shreya P, Raghavendra R	Node MCU, ESP8266 WIFI module, LCD, Servo Motor, Buzzer, GSM module, MQ6 Sensor, LPG.	This system responds faster and can disseminate critical information more quickly than manual methods. In the event of a leak, the system notifies and quickly responds by sending SMS to the appropriate authority.	If the network coverage is weak, the alert message will be delayed.it needs stable network connection
2022	Gas Leakage Detection Using GSM Module & Arduino with SMS Alert .	Mr. Sivaprasad Lebaka, M. Ganga Rami Reddy, K. Devi Priya, N.V. Charan, B. Chandana	Arduino UNO, MQ-2 Sensor, Buzzer, LCD, Exhaust Fan, GSM Modem.	The Arduino UNO turns on the LCD and buzzer. It even turns on the GSM modem after that, it continues to send messages SMS to mobile number specifically mentioned in the program of the source code for alerting danger to the people and the LPG safety device is used to turn off the gas supply by using this system we can reduce gas leakage accidents. In danger situations we are able to save the life by using this system.	If the network coverage is weak, the alert message will be delayed. This gas leakage system only deducts LPG leakage. It doesn't deduct other harmful gases like butane, ethylene, methane, etc.