

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

IBM – LITERATURE SURVEY

PROJECT TITLE

GAS LEAKAGE MONITORING AND ALERTING SYSTEM



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S.NO	TITLE OF THE PROJECT	ADVANTAGE	DISADVANTAGE	TECHNOLOGY USED
1	Gas Leakage Detection and Alert System using IoT	<p>1..The advantage of this simple gas leak detector is its simplicity and its ability to warn about the leakage of the LPG gas</p> <p>2..The main advantage of this system is that it off the regulator knob of the cylinder automatically when gas leakage detected.</p>	Data which is received through sensors are not stable or are more than threshold it will predict that there is leakage situation	This system uses GSM technique to send alert message 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
2	LPG Gas Leakage Detection and Alert System	This paper presents a LPG leakage detection and alert system to avoid fire accidents and to provide house safety	. This sensor can be only operated at +5V. It cannot operate at high voltage of above +5V. Only the MQ6 sensor must be employed.	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.
3	IOT BASED SMART GAS LEAKAGE DETECTION AND ALERT SYSTEM	This system measures the amount of LPG present in the cylinder. It automatically books the cylinder from registered number. And a alert message sent to the customer also about volume of gas available in cylinder.	Only MQ2 sensor is used which has a low range of threshold for sensing gas values in ppm and further versions of MQ sensors is not used or can't be added	It is a Arduino based gas leakage detection, in which device can get connected to WIFI using ESP8266 WIFI module, the maximum and minimum variable will be set consequently. After detection the alert SMS will be sent to the owner.
4	IoT Gas Leakage Detector and Warning Generator	This is to design a system that can detect	When the gas is released, the green LED goes	IoT is

		the presence of natural gases and send alert signals to the users and nearest engineers of the leakage occurrence..	OFF, the red LED blinks, and the alarm goes ON when the sensor output voltage is more than or equal to 2.5V. Below 2.5V, the alarm is OFF and the green LED is lit while the red LED is off	basically a network of interconnected devices that are embedded with sensors, programming, and network connectivity to collect and exchange data
5	Sensor-Based Gas Leakage Detector System	This is a low-cost, low power, lightweight, portable, safe, user friendly, efficient, multifeatured and simple system device for detecting gas	Gas tragedy is an example of accidents due to gas leakage. The reason for such explosions is due to substandard cylinders, old valves, no regular checking of gas cylinders, worn out regulators and a lack of awareness of handling gas cylinders.	Sensors using IoT
6	Detecting LPG Leakage and Automatic Turn off using Arduino Connected with PIR Sensor	The PIR sensor detects the presence of human near the kitchen and the valve is turned off when no human is detected inside the kitchen over a long time. This will be highly reliable.	Arduino needs a power supply of 5V. When there is no power supply in the home, power must be supplied to Arduino constantly. Hence a battery is used for providing uninterrupted power supply	Arduino UNO is interfaced with the gas sensor, temperature sensor, PIR sensor, relay and exhaust fan . Arduino UNO is useful and more flexible for advanced applications Another technique: it uses AT89s52 which has a complex structure and can only perform limited number of tasks at a time. This method gives no solution for the condition when the user is not in the kitchen.
7	IOT BASED SMART GAS LEAKAGE DETECTION AND ALERT SYSTEM	This system measures the amount of LPG present in the cylinder. It automatically books	It was the only cause of many accidents in the past.	This is a Arduino based system designed and implemented to detect the gas leakage in home,

		the cylinder from registered number. And a alert message sent to the customer also about volume of gas available in cylinder		hotels, and in industrial applications.
8	Detecting LPG Leakage and Automatic Turn off using Arduino Connected with PIR Sensor*	The gas leakage detector can be implemented using tripper circuit which trip off the main supply at risk stage robot can also be employed for monitoring the pipeline gas system.	AT89s52 which has a complex structure and can only perform limited number of tasks at a time. This method gives no solution for the condition when the user is not in the kitchen.	Using of Arduino UNO to carry out the desired task. Arduino is connected to gas sensor (MQ-2) and temperature sensor (LM-35). Gas sensor is used to detect leakage of gas and temperature sensor is used to detect temperature constantly
9	Home and Industrial Safety IoT on LPG Gas Leakage Detection and Alert System	The LPG gas leakage detection system is an important safety measure for public safety this day due to large usage of LPG gas in domestic appliances.	natural gas leak can increase the risk of fire and explosion since it spreads quickly	IoT and GSM based Gas Leakage Detection System.
10	Efficient Gas Leakage Detection and Control System using GSM Module	This project is that the leakage is detected and stopped within 2 seconds, after the leakage starts. This system can detect even 0.001% of leakage The leakage is detected and controlled by means of exhaust fan	consists of a number of switches or sensors connected to a control unit that determines if and which button was pushed or a preset time has lapsed, and usually illuminates a light on the appropriate button or control panel, and sounds a warning in the form of a continuous or intermittent buzzing or beeping sound.	In this method, different gas sensing technology is used. The LPG gas leakage is detected by the semiconductor sensor