LITERATURE SURVEY

Team ID : PNT2022TMID16099

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1. **TITLE :** Automated unified system for LPG using microcontroller and GSM module

AUTHOR: B. B. Did paye, Prof. S. K. Nanda

SUBJECT: Their paper Proposed an advance and innovative approach for LPG leakage detection,prevention and automatic Booking for refill. In advance, the system provides the automatic controlling of LPG regulator also if leakage is detected the system will automatically turn off the main switch of power supply. Hence it helps to avoid the explosion and blast.

2. **TITLE :** leakage detection and analysis of leakage point in the gas pipeline system

AUTHOR: Zhao Yang, Mingliang Liu, Min Shao, and Yingjie Ji, 2011

SUBJECT: In this paper they gave various model which used SCADA I/F Model: The SCADA system has the function of transferring the acquired data from a pipeline system to Transient Simulation Model every 30 seconds. This module communicates with SCADA. Dynamic parameters are collected every 30 seconds, such as pressure, flow and temperature. Transient Simulation Model: Transient flow is simulated utilizing perfect numerical methods based on actual data. Pressure and temperature served as independent variables are provided in order to get average pressure and average temperature. Then all the parameters of the gas in the pipeline system can be acquired. Leakage Detection: The leakage detection is carried out by comparing the data acquired through the SCADA system with that by the Transient Simulation Model. This model could provide leakage point judgment and prompt warning based on transient simulation and volume balance

3. **TITLE :** Gas detection using an integrated circuit and MQ-9

AUTHOR: Falohun A.S., Oke A.O., and Abolaji B.M. 2016

SUBJECT: In this basically, they used an embedded design which includes typical input and output devices include switches, relays, solenoids, LEDs, small or custom LCD displays, radio frequency devices, and sensors for data such as temperature, humidity, light level etc. Embedded systems usually have no keyboard, screen, disks, printers, or other recognizable I/O devices of a personal computer, and may lack human interaction device. The amount and type of detectors and the type of fire alarm system that one chooses for property protection will depend on the owner's property protection goals, the value of the property and the requirements of the owner's insurance company.

4. **TITLE :** gas leakage and LPG levels where gas leakage occurs automatically

AUTHOR: Ms.Shinde Sayali P , Ms. Chavan Sakshi S, Ms. Dhas Snehal S (June 2021)

SUBJECT: The authors suggests that gas leakage is performed by various gas sensors. Whose author has worked on gas leaks and mentions that we can take care if a found using a sensor and gas booking can be done automatically when a small amount of gas is taken closed. RFID tag microcontroller, pressure sensors and buzzers are used to monitor gas. Through this paper important parameters are used to find the level of gas in the container. The good purpose of this project is to get notification of gas leak to user when gas leakage is started. Arduino was originally created as a tool for fast sampling and activities for Students with no knowledge for electronics. This paper uses a microcontroller, buzzer and a gas sensor to detect gas leakage system. When a gas leak is detected by a gas sensor ,the microcontroller turn on the buzzer in critical condition. The author suggest that this message or instruction may be displayed using an LCD display for LPG monitoring. The proposed system detects LPG leaks and alerts customers. The alarm starts when the system notice and increases in LPG leakage concentration by sending an alarm and sending a message to specific mobile phone. The device assures safety and prevents explosions.A microcontroller based system based on gas sensor(MQ6) has been developed in proposed system to detect LPG leakage . The unit is also integrated with an alarm unit to detect signal a leak.

5. **TITLE :** Leakage detection and analysis of leakage point in the gas pipeline system

AUTHOR: The Manichandana Simrah et.al (2019)

SUBJECT: In this paper they gave various model which used SCADA I/F Model: The SCADA system has the function of transferring the acquired data from a pipeline system to Transient Simulation Model every 30 seconds. This module communicates with SCADA.Dynamic parameters are collected every 30 seconds, such as pressure, flow and temperature. Transient Simulation Model: Transient flow is simulated utilizing perfect numerical methods based on actual data. Pressure and temperature served as independent variables are provided in order to get average pressure and average temperature.

6. **TITLE :** ARM7 primarily based machine-driven high performance system

is used for LPG refill booking and outpouring detection

AUTHOR: Rahul Nalawade et.al, (2018)

SUBJECT: That decreases the outpouring resistance.Microcontroller sends a message “EMERGENCY ALERT: LPG gas outpouring found in your home to needed cell numbers via GSM module and therefore the same are going to be displayed on digital display. This technique detects the outpouring of the LPG associated alerts the patron regarding the leak by SMS and as an emergency live the system can shut down the ability offer, whereas activating the alarm