Team ID	PNT2022TMID28556
Project Name	Gas Leakage Monitoring and Alerting System for Industries

LITERATURE SURVEY

ABSTRACT:

The Internet of things (IoT) is the system of gadgets, vehicles, and home machines that contain hardware, programming, actuators, and network which enables these things to interface, collaborate and trade information. IoT includes broadening Internet network past standard device, for example, work areas, workstations, cell phones and tablets, to any scope of generally stupid or non-web empowered physical device and ordinary articles. Installed with innovation, these gadgets can convey and connect over the Internet, and they can be remotely observed and controlled. The meaning of the Internet of things has advanced because of union of numerous innovations, ongoing examination, AI, ware sensors, and implanted frameworks. Conventional fields of installed frameworks, remote sensor systems, control frameworks computerization (counting home and building mechanization), and others all add to empowering the Internet of things. A gas spill alludes to a hole of petroleum gas or different vaporous item from a pipeline or other regulation into any territory where the gas ought not be available. Since a little hole may steadily develop a hazardous convergence of gas, spills are perilous. Notwithstanding causing flame and blast dangers, holes can slaughter vegetation, including huge trees, and may discharge amazing ozone harming substances to the environment.

INTRODUCTION:

The Internet of Things is a developing theme of specialized, social, and monetary centrality. Customer items, tough goods, cars and trucks, modern and utility segments, sensors, and other regular articles are being joined with Internet availability and amazing information systematic capacities that guarantee to change the way we work, live, and play. 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. LPG and CNG i.e., petroleum gas and compressed natural gas are most used in residential and commercial places for cooking purpose and in various vehicles as a replacement for costly fuels like diesel, petrol. These gases are filled in cylinders which are easily un-damageable. But leakage can take place through pipes or regulators or knobs which may cause accidents like suffocation, uneasiness or sometimes may catch fire and short circuit as well. The main aim of this project is developing a system that can detect gas leakage. On detection it will send an alert SMS and the gas supply knob of cylinder will be switched off automatically.

LITERATURE SURVEY:

Several reviews on the subject of gas leakage detection techniques were done in the past either as part of research papers/technical reports on a certain leak detection method and other gas related subjects. They introduce design and implementation of an economic gas leakage detector. They gave the formulation of many problems in previous gas leakage detectors. They told that several standards have been formulated for the design of a gas leakage detection system such as IEEE, BS 5730, and IEC.For this work, the recommended UK safety standards have been adopted. The proposed alarm system is mainly meant to detect LPG leakage, which is most used in residential and commercial premises. The system detects not only the presence of gas (gas leak), but also the amount of leakage in the air, and accordingly raises an appropriate audio-visual alarm. The objective of the system is to detect LPG gases such as propane and butane. The allowed UK level for butane is 600 ppm above which it is of high level and poses a danger. The gas leakage is performed by various gas sensors. It 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. Gas sensors 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 turns 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 notices 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.

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