

SURVEY PAPER ON GAS LEAKAGE MONITORING AND ALERTING SYSTEM WITH THE HELP OF IoT

VIGNESH K, SHEWAG R, VARUN H, SREERAGHAENDRA R

JEPPIAAR ENGINEERING COLLEGE

ELECTRONICS AND COMMUNICATION DEPARTMENT

ABSTRACT:

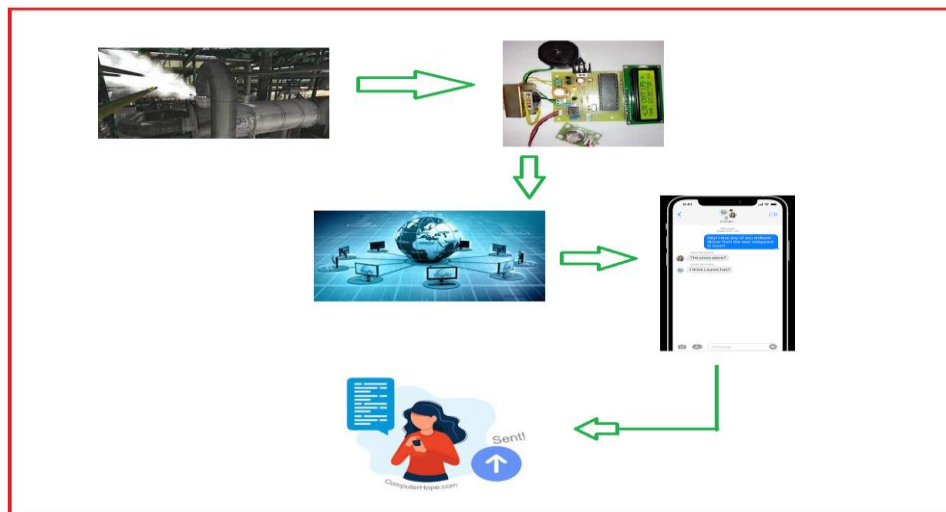
Gas leakage monitoring and tracking the toxic gas leakage detection in a large scale industries. By using advance technology Wireless Sensor Networks, we can avoid the hazards. Device and network will provide huge safety to environment around the industries and localize people. Power, energy consumption and structure with respect to their industrial boundary.

INDEX KEYWORDS: Detection, WSN, Leakage, Bounday, IoT

INTRODUCTION:

In the last decade, industrial hazard occur in regular interval. Due to the large amount of death, we need a precaution measure. By using the current technologies we can prevent the hazards. These gases might toxic elements and flammable which is more dangerous. The Internet of Things have advance technology to solve these problems. Wireless sensing networks will provide accuracy about leakage around the industries. This mechanism is very efficient and reliable. It is capable of sensing gases such as CO, CO₂, LPG, CH₄.

These wireless sensor networks not only have detection and also alarming systems inbuilt. The detection information also can be spread to people under the environment with alerting messages.



LITERATURE SURVEY:

With help of IoT, Gas Leakage Detection and Smart Alerting System:

Connecting between the Physical network that are linked with each other and through internet. The device are capable of exchange information within their network. These network has great accuracy and precision. Texting among the people through messages will lead to precaution measure to prevent.

SENSORS USED:

There is lot of sensing device are available most common gas and temperature sensing device can be implemented in this project that are LM35, MQ-2

APPLICATION:

Detection of Harmful Gas:

Dangerous gases such as Methane, CO produce unhealthy environment. These gases can produced in major industry and also these gas leakage will lead to huge hazards. Gas leakage sensing device can prevent these leakages.

Prevention of Fire Hazard:

There is a situation of spreading flammable gases among the industries. So any fire breakout in the industry will lead to explosion. Fire detection sensor will sense to prevent this type of hazard.

Measurement of Oxygen level:

It is important to maintain breathable oxygen level in the surrounding of the working environment, should be maintain the level of oxygen. Presence of gases in working place can be detect with measurement.

Advantages:

- ✚ Real time alerting messages
- ✚ Controls oxygen levels
- ✚ Prevent explosions
- ✚ Provide safety measures
- ✚ Leakage can be resolve within the time

Conclusion:

By this survey paper IoT technology provides a advance sensing networks accuracy and reduced time alerting through internet with the physical parameter sensing devices. Harmful, toxic and flammable gases can be detected with their location in a industry. This system will able to identify the gases and prevent from their hazard. Secure life in a industrial environment.

REFERENCE:

abuprasanth.V. "Cloud Connected Smart Gas Leakage Detection And Safety Precaution System" International Journal of MC Square Scientific Research Vol.6, No.1 Nov 2014.

Asmita Varma, Prabhakar S, Kayalvizhi Jayavel. "Gas Leakage Detection and Smart Alerting and Prediction Using IoT." Internet of Things and Applications (IOTA), International Conference on.IEEE, 2017.

Kumar Keshamoni and Sabbani Hemanth. "Smart Gas Level Monitoring, Booking & Gas Leakage Detector over IoT " International Advance Computing Conference IEEE, 2017.
