IOT BASED GAS LEAKAGE MONITORING & ALERTING SYSTEM

INTERNET OF THINGS (IOT) BASED GAS LEAKAGE MONITORING AND ALERTING SYSTEM WITH MQ-5 SENSOR

OBJECTIVE

The principle of operation of IOT based gas leakage and monitoring system was shown by operating the Arduino (UNO-1) model attached with embedded system with required input and output gas level with the help of gas sensors.

METHODOLOGY

Sensor node are implemented using Arduino(UNO-1).

Arduino acts as Central Processing Unit(CPU) with Wifi which helps us to control and monitor the detected gas level through a sensor and it is interfaced with a free web page is linked via cloud interface.

ARDUINO UNO

The Arduino Uno is a microcontroller board with extraordinary functions. It contains fourteen digital (input and output pins), six analog pins, with data transferring speed up to 16MHz, a universal USB terminal, power connection, and a reset switch.

PROBLEM

In pipelines gas transfer, gas leakage is inevitable as there is a necessity of joints and other transmission components. The gas leakage up to a certain mass level can be ignored, however it is very important to raise an alarm if it surpasses certain threshold values.

OUTCOME

This results in a more efficient in operation because it is connected to a common web page specially built to notify or email the responsible authority automatically so reduces the stress of constant monitoring.

FUTURE SCOPE

The main advantage of this project is the mail notification about gas leakage is sent to all workers in the industry so that it reduces the stress of constant monitoring