Literature Survey

Paper 1: Internet of Things (IOT) Based Gas Leakage Monitoring and Alerting System with MQ-2 Sensor

In the year of 2008, LIU zhen-ya, WANG Zhen-dong and CHEN Rong, “Intelligent Residential Security Alarm and Remote fire alarm, toxic gas leakage remote automatic sound alarm and remote-control system, which is based on 89c51 single chip computer. The system can perform an automatic alarm, which calls the police hotline number automatically. It can also be avoice alarm and shows alarm occurred address. This intelligent security system can be used control the electrical power remotely through telephone. applications a remote monitoring system based on SMS through GSM In the year of 2002, K. Galatsis, W. Wlodarsla, K. Kalantar-Zadeh and A. Trinchi, “Investigation of gas sensors for vehicle cabin semiconducting (MOS) gas sensors. In this paper, commercially available gas sensors are compared with fabricated Moo3 based sensors possessed comparable gas sensing properties. The sensor has response 74% higher relative to the hest commercial sensor Tested.

Author: Rohan Chandra Pandey, Manish Verma, Lumesh Kumar Sahu
Year: 2017

Paper 2: IOT Based Gas Leakage Detection System with Database Logging, Prediction and Smart Alerting

Mahalingam, R.T. Naayagi, N.E. Mastorakis have proposed a system where any gas leak detected by the sensors is fed to the microcontroller so that it can process and produce an audio-video alarm. Buzzers and LEDs are used in alerting mechanism and MQ5 sensor senses various gases. The system uses PIC18F1320 microcontroller which detects the gas leakage and activates the alarm when certain exposure limit is exceeded. HinaRuqsar, Chandana R, Nandini et al. have proposed a system that monitors the gas leak constantly with the help of sensors and also the data is available real time through internet. They have used Xively IOT

platform to provide real time sensor data over the internet. The sensor data will be fed to an account (Twitter or Facebook) through Xively. Advantage of the proposed system is that along with gas leakage detection, real time data is available through real time feed over internet. The proposed paper by AshishShrivastava, Ratnesh Prabhaker, et al aims to present such a design that can automatically detect and stop gas leakage in susceptible premises. This system consists of GSM module, which alerts by sending SMS. This system not only detects gas leakage but also alerts and turns off main power and gas supplies

Author: Chaitali Bagwe, Vidya Ghadi, Vinayshri Naik, Neha Kunte

Year:2018

Paper 3: Internet of Things (IoT) Based Gas Leakage Monitoring and Alerting System with Mq-6 Sensor

In the year of 2008, LIU zhen-ya, WANG Zhen-dong and CHEN Rong, “Intelligent Residential Security Alarm and Remote-Control System Based On Single Chip Computer”, the paper focuses on, Intelligent residential burglar alarm, emergency alarm, fire alarm, toxic gas leakage remote automatic sound alarm and remote control system, which is based on 89c51 single chipcomputer. The system can perform an automatic alarm, which calls the police hotline number automatically. It can also be a voice alarm and shows alarm occurred address. This intelligent security system can be used control the electrical power remotely through telephone. In the year of 2008, Chen Peijiang and Jiang Xuehhua, “Design and implementation of Remote Monitoring System Based on GSM”, this paper focuses on the wireless monitoring system, because the wireless remote monitoring system has more applications a remote monitoring system based on SMS through GSM In the year of 2002, K. Galatsis, W. Wlodarsla, K. Kalantar-Zadeh and A. Trinchi,“Investigation of gas sensors for vehicle cabin air quality monitoring”, this paper focuses on, car cabin air quality monitoring can be effectively analyzed using metal oxide semiconducting (MOS) gas sensors. In this paper, commercially available gas sensors are compared with fabricated Moo3 based sensors

possessed comparable gas sensing properties. The sensor has response 74% higher relative to the hest commercial sensor tested. Internet of Things: Challenges and state-of-the art solutions in Internet-scale Sensor Information.

Author: Rohan Chandra Pandey, Manish Verma, Lumesh Kumar Sahu, Saurabh Deshmukh

Year:2018

Paper 4: Gas Leakage Detection and Smart Alerting System

This project proposed the most common problem experienced in our day- to- day lives that is regarding GAS container going empty. We bring this paper to create awareness about the reducing weight of the gas in the container, and to place a gas order using IOT. The gas booking/order is being done with the help IOT and that the sys continuous weight measurement is done using a load cell which is interfaced with a Microcontroller (to compare with an ideal value). For ease it is even has been added with an RF TX & Rx module which will give the same information. When it comes it to security of the kit as well as gas container, we have an MQ-2(gas sensor), LM 35(temperature sensor), which will detect the surrounding environment for any chance of error. Whenever any change is subjected in any of the sensors (load cell, LM35, Mq-2) a siren (60db) is triggered

A.LM35(temp.sensor)
For the sensors, if any fire is to be happened then the temperature sensor will sense an high change (positive change) in temperature and will send an pulse to microcontroller which intern will send an update to the internet through IoT, and as well it will trigger an siren alarmintheRFRxkit
B.MQ-2(GasSensor)
MQ 2 sensor is basically an LPG (liquefied petroleum gas) which is composed of propane & butane, so when a gas leakage is sensed by the sensor it will send an high pulse to the Mc which will update it in the IoT, and even[5] an buzzer is heard in the RF Rx kit. And the problem can be sorted & solved. Thus, the overall components &

sensors play role in the paper as explained above.

Author: Shital Imade, Priyanka Rajmanes, Aishwarya Gavali, Prof. V. N. Nayakwadi

Year: 2018