IDEATION REPORT

Gas Leakage Monitoring and Alerting System

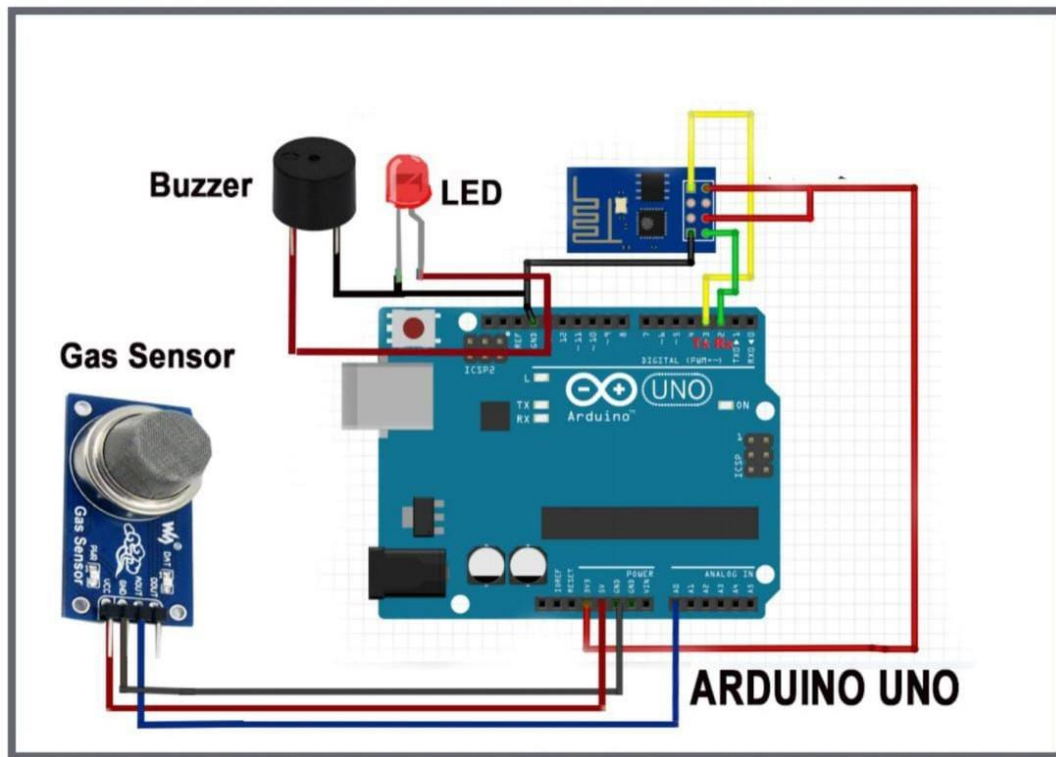*Aasim Malik, Mohamed Shameer, Peerzada Zeeshan, Prithvi Choudhary*

Abstract

Internet of Things is a very vast domain which has many implications especially when it comes to normal day-to-day activities . The problem we are facing in this day and age is the problem of gas leakages which kills thousands of people per year especially in a country like India . IoT or Internet of Things can be very helpful in solving this problem and with an IoT based product our main aim is to detect these gas leakages and inform the authorities as soon as possible which can help us save many lives. I OT provides a cheap solution that helps in a mass distribution of our product which also helps in saving as many license possible .

Introduction

Internet of things is a growing domain which is getting implemented into a day to day lives as much as possible. Our main aim is to integrate these IoT's with household devices which will be able to prevent or protect human lives from possible explosions that are caused by this flammable gasses gasses such as LPG CO2 CO etc. Our proposed system will not only able to detect the leakage of these gasses but also inform authorities and possible close relatives and neighbors and with this we should be able to prevent as many life as possible .

Our System consists of gas detector sensors, Arduino board, ESP8266 and Cloud server. One Society authority member can register the all flat member user to our system. Society admin can add the details of per flat user such as user name, mobile number, per user flat sensor details information. Society admin can configure the threshold value of each sensor. System hardware can be deployed on each flat. Sensors can sense the value per time. System can send the values to cloud server. Server can Check that the sensor values was existed the threshold value. If sensor value can cross the limit the server can send the command to hardware for buzzing the alarm. Server also sends the notification message to user.

In our paper we are using IOT for enhancing the safety standards that exist in our society. In the development phase of this prototype which has been a revolutionary in the IOT field to prevent flammable gasses to cause explosions . we are using iot technology to create a gas leakage detector system for societies and households which having smart alerting techniques involves sending neighbors, alerting authorities and And household members which can possibly save their lives and save property damage as well her system will save many lives and prevent harmful explosions that can endanger lives and property.