

# BANNARI AMMAN INSTITUTE OF TECHNOLOGY

(An Autonomous Institution, Affiliated to Anna University,  
Approved by AICTE, Accredited by NAAC with 'A+' Grade)

**TEAM NAME : ETERNALS**

**PROBLEM STATEMENT : Smart Home Advancement for Automated Living**

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# PROBLEM STATEMENT

## SMART HOME ADVANCEMENT FOR AUTOMATED LIVING

In the modern era, the integration of Internet of Things (IoT) technology into residential settings has revolutionized the concept of home automation. IoT integrated smart home automation refers to the application of IoT devices and systems to automate various aspects of household operations, enhancing convenience, efficiency, and security for homeowners.



# ABSTRACT

The magnetic gas sensor is fixed to the home cylinder. when the gas leakage takes place in kitchen the gas sensor is activated and pass signal to the Arduino. By passing this signal the ventilation fan and buzzer is switched ON. It also send notification "**The gas is leaking ⚠**" to the users mobile .By doing this we can prevent the explosion.

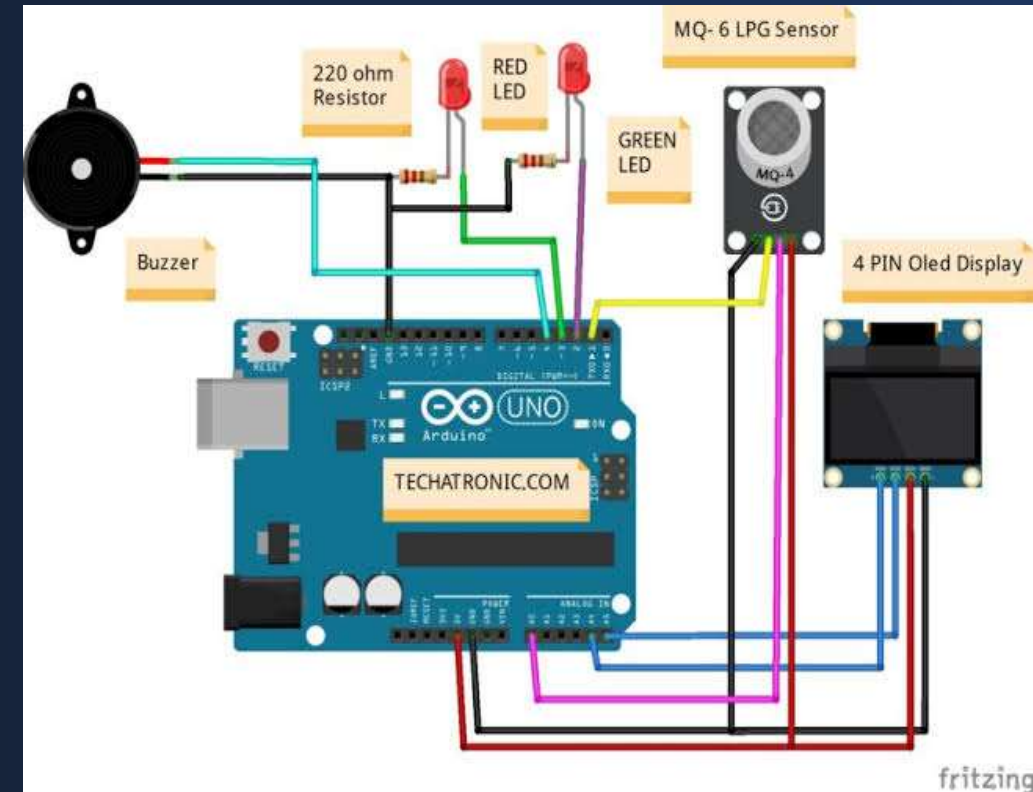


## PROPOSED SOLUTION

The **IoT-based LPG gas leakage detector** employs an **ESP8266 NodeMCU** microcontroller and an **MQ-5 gas sensor**. This system continuously monitors gas levels and promptly detects any leaks. When the MQ-5 sensor senses LPG gas, it communicates the data to the **Blynk app** via Wi-Fi. Additionally, an **IFTTT applet** is set up to trigger email notifications in case of a gas leak. The project ensures safety by providing real-time alerts and can be further enhanced with emergency response mechanisms.

# APPROACH

- Collecting data from the LPG gas sensor.
- Passing the data to Arduino.
- It process the data and sends a notification the user with the help of the sim 2G.
- When the leaking of gas reaching a extreme state and gets fired then the temperature sensor sensing the temperature.
- Then turn ON the ventilation fan and water sprinkler



# COMPONENTS REQUIRED DURING THE COURSE OF HACKATHON

- GAS SENSOR AND TEMPERATURE SENSOR
- ARDUINO AND POTENTIOMETER
- RELAY AND BUZZER
- MOBILE USER INTERFACE AND 2G SIM
- RESISTORS , WIRES AND BREADBOARD
- VENTILATION FAN AND LED

# THANK YOU