

IoT Based LPG Gas Leak Monitoring System

Dr Abdul Rahim¹ and Boggula Sri Aslesha Raj²

Associate Professor, ECE (Embedded Systems) Department¹

MTech Student, ECE (Embedded Systems) Department²

Malla Reddy Engineering College for Women's, Maisammaguda, Telangana, India.

rahim.mrecw@gmail.com¹, aslesharaj9121@gmail.com²

Abstract: *The motive of the Internet of Things (IoT)-primarily based totally LPG fueloline leak tracking gadget is to enhance protection in each domestic and industrial settings with the aid of using quick figuring out and addressing fueloline leaks. The MQ-6 and different fueloline sensors are used on this gadget to constantly take a look at for the presence of LPG withinside the air. It makes use of IoT structures like Blynk or ThingSpeak to hit upon leaks and at once ship out buzzer, SMS, and cellular app notifications. An Arduino or NodeMCU microcontroller powers the gadget, processing sensor records and facilitating Wi-Fi communication. Even while customers aren't gift on the site, real-time tracking ensures that they may be privy to leakage. It lessens the probability of fueloline leak-associated mishaps like fires and explosions. For analysis and system performance monitoring in the future, the data is logged. This intelligent system encourages a preventative safety measure. It is appropriate for general use due to its affordable price and small size.*

Keywords: LPG Gas Leak Detection, IoT, Gas Sensor (MQ-6), Real-time Monitoring, NodeMCU, Safety System, Wireless Communication, Blynk, ThingSpeak, Smart Home Automation

