IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 1, October 2023

Automatic LPG Leakage Detector using Arduino (UNO)

Prof. S. A. Thakare[1], Atharv H Bhaganagarkar[2], Chetana A. Barai[3], Adesh R. Misar[4], Aishwarya S. Chaudhari[5]

Assistant Professor, Department of Electronics & Telecommunication Engineering[1]
Students, Department of Electronics & Telecommunication Engineering1 Engineering[2,3,4,5]
Jagadambha College of Engineering & Technology, Yavatmal, India

Abstract: *Gas leakage is a major problem in industries, residential premises and gas powered vehicles. The leakage if not detected may lead to explosion and cause severe damages to life and environment. The conventional leakage detection system uses on-site alarms for warning. The "LPG Gas Leakage Detector Using Arduino" is an innovative safety system designed to detect and respond to the presence of Liquefied Petroleum Gas (LPG) leaks in various environments, including homes, kitchens, and industrial settings. This device leverages Arduino microcontroller technology and gas sensors to provide real-time monitoring and alerts. The system offers an additional layer of protection against the potential hazards and dangers associated with gas leaks.*

Keywords: Arduino UNO, LCD (Liquid crystal display), LPG(Liquefied petroleum gas), MQ-6 Gas Sensor, Buzzer, LED(Light emitting diode)

REFERENCES

[1] Shrivastava, A., Prabhaker, R., Kumar, R., & Verma, R. GSM based gas leakage detection system. International Journal of Emerging Trends in Electrical and Electronics (IJETEE-ISSN: 2320-9569), 2013; 3(2):42-45.
[2] Hema, L. K., Murugan, D., & Chitra, M. WSN based Smart system for detection of LPG and Combustible gases. In National Conf. on Architecture, Software systems and Green computing-2013.
[3] Ramya, V., & Palaniappan, B. Embedded system for Hazardous Gas detection and Alerting. International Journal of Distributed and Parallel Systems (IJDPS), 2012; 3(3):287-300.
[4] Priya, P. D., & Rao, C. T. Hazardous Gas Pipeline Leakage Detection Based on Wireless Technology. International Journal of Professional Engineering Studies, India, 2014; 2(1).
[5] Jero, S. E., & Ganesh, A. B. 2011, March. PIC18LF4620 based customizable wireless sensor node to detect hazardous gas pipeline leakage. In 2011 International Conference on Emerging Trends in Electrical and Computer Technology (pp. 563-566). IEEE.
[6] Anusha, O., & Rajendra prasad, C. H. Experimental investigation on road safety system at crossings. International Journal of Engineering and Advanced Technology, 2019; 8(2):214– 218.