

# LPG Gas Leakage Detection System with Auto Cutoff Regulator using Arduino

Dr. William Thomas H M<sup>1</sup>, Alex Stefan Doraiswamy<sup>2</sup>, C Balaji Nanda<sup>3</sup>,  
Gowtham Reddy B<sup>4</sup>, H Pavan Kumar<sup>5</sup>

Assistant Professor, Department of Electronics and Communication Engineering<sup>1</sup>  
Students, Department of Electronics and Communication Engineering<sup>2,3,4,5</sup>  
Ballari Institute of Technology and Management, Ballari, Karnataka, India

**Abstract:** *The problem of gas leakage and fire is often encountered in our day-to-day life. LPG, Liquefied Petroleum Gas, is highly flammable gas used as fuel in heating appliances. Leakage of this gas raises the risk of building fire, suffocation or an explosion. Most of the fire-breakouts in industries are due to gas leaks. These cause dreadful damage to the equipment, human life leading to injuries, deaths, and environment. The mentioned problem can be solved with the development of reliable techniques to detect gas leakage. We proposed a system to detect gas leakage automatically with the help of gas sensor and Arduino microcontroller and alerts the person if there is gas leakage by buzzer alarm and auto cutoff regulator.*

**Keywords:** gas leakage