

Smart Gas Leakage Detector Using IOT Sensor

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Abstract: *The IoT-based Gas Leakage Detection System integrates an Arduino microcontroller, gas sensor, LCD display, Wi-Fi module, buzzer, GSM module, GPS module, and a DC fan. This system provides real time monitoring and alerting for gas leaks to enhance safety in domestic and industrial environments. The gas sensor detects gas concentrations continuously and triggers the alarm system when a leak is detected. The LCD shows the detected gas level, the buzzer alerts nearby individuals, and the GSM module sends SMS alerts to designated contacts for remote notification. GPS provides system location for emergency response, and Wi-Fi enables remote monitoring and control. The DC fan helps disperse leaked gas to reduce hazards. The system effectively detects gas leaks, alerts users, and prevents fire accidents by sending GPS-based SMS alerts to individuals or entire groups.*

Keywords: Internet of Things (IoT), Microcontroller, GSM, GPS, LCD

