

## **ABSTRACT**

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**DESIGN OF LPG GAS LEAK DETECTION DEVICE WITH MQ-2 SENSOR BASED ON ARDUINO MICROCONTROLLER WITH BUZZER AND LED OUTPUT**

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Keyword: GAS LEAK, LPG, MQ-2, ARDUINO

(xii + 22 + Attachments)

LPG gas leaks can cause disasters such as fires that can cause loss of life and property. In addition, there are several factors that complicate the detection of LPG gas leaks, such as the placement of LPG gas container that are difficult to reach, such as in closed cabinets or placed between several piles of other goods. In this research, a design of an LPG gas leak detection device with an MQ-2 sensor based on an Arduino Uno microcontroller with a buzzer and LED output that functions as a gas leak warning device by detecting the amount of gas content around the device. From the test results it can be concluded that the MQ-2 sensor component can send the detection results of the gas content contained in the vicinity and processed by Arduino. Arduino Uno can process the program code properly so that the output components consisting of LED and Buzzer can run according to the specified conditions.

Bibliography (2015-2022)