

## ABSTRACT

Recently, there have been frequent cases of smuggling oplosan liquor whose alcohol content exceeds the established safe limit. The purpose of this research is to implement an alcohol detection system using an MQ-3 sensor that can detect alcohol levels in a liquid that is indicated to contain alcohol. The MQ-3 sensor is a sensor used to detect alcohol content in the air, this sensor works by relying on the conductivity of metaloxide crystals ( $\text{SnO}_2$ ), the increase in sensor conductivity is directly proportional to alcohol concentration. In this final project research, an Internet of Things-based alcohol detection system using the MQ-3 sensor will be designed, the data from the detection will be displayed on a 16x2 LCD screen, then a notification message will be sent via WhatsApp bot which serves as a reminder if the alcohol level contained exceeds the set safe limit. Based on the tests that have been carried out in this study, the alcohol detection system gets an average error-rate of 0.079%, the system functions normally and runs as planned.

Keywords: *Internet of Things, Alcohol level, MQ-3 Sensor*