

# **DESIGN OF AIR PURIFIER BASED ON ARDUINO UNO AND MQ-2 SENSOR USING ULTRAVIOLET WITH WET SCRUBBER SYSTEM**

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## **ABSTRACT**

*Clean air is one of the most important needs for humans. If the air we breathe is dirty, it can interfere with our daily activities. Air pollution is getting worse along with technological advances. Technological advances have caused sources of air pollution to increase. There needs to be an automatic device that can filter dirty air and kill bacteria caused by smoke based on Arduino and MQ-2 sensors as smoke detectors. The main objective of this study is to create an air filtration system (air purifier) using the wet scrubber method that can capture pollutant particles using water or fluid droplets. The test results show that this system has succeeded in reducing smoke levels by 205.4 PPM with an accuracy level of both sensors through error testing recording a difference value of 1.9 and 1.75. This system is expected to be implemented as one of the air filtration methods in industries or factories with high smoke pollution.*

**Keywords:** *Air Purifier, MQ-2 Sensor, Wet Scrubber*