

# **DESIGN OF CIGARETTE SMOKE DETECTORS AND AUTOMATIC DOORS IN MANY TOILETS THROUGH THE BLYNK APPLICATION**

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## **ABSTRACT**

*Clean air is a right for everyone, so all activities that can cause air pollution need to be prevented, including those originating from cigarette smoke. It is unfortunate that smoking activities are starting to penetrate the world of education where children are starting to take part as smokers even in the school environment. There are many ways to smoke at school, one of which is smoking in the toilet where this location is the location most frequently used by students and is difficult to monitor. For this reason, a cigarette smoke detector and an automatic door lock on the toilet are needed to warn students. The design uses NodeMCU ESP8266 as a microcontroller, MQ-2 sensor as a cigarette smoke detector, servo motor for activating automatic door opening and closing, buzzer as a warning sound, RFID (Radio Frequency Identification) and the Blynk Android application as a door opener for supervisors.*

**Keywords:** *MQ-2 Sensor, NodeMCU ESP8266, RFID, Servo Motor, Blynk.*