

# ***INTERNET OF THINGS (IOT) BASED AUTOMATIC FLUSHING USING MESSAGE QUEUNING TELEMETRY TRANSPORT (MQTT) PROTOCOL***

**Salma Shidqiyyatul Alawiyah**

*Electrical Engineering Study Program, Faculty of  
Science and Technology*

*University of Technology Yogyakarta*

*Jl. Ringroad Utara Jombor Sleman*

*Yogyakarta*

*E-mail : [salmashidqiyya@gmail.com](mailto:salmashidqiyya@gmail.com)*

## ***ABSTRACT***

The Covid-19 pandemic that has not yet passed has made people have several new hobbies that can of course be done at home. One of the hobbies that attract people's interest is farming. However, even though they are doing their hobbies, some people still have to carry out their office work activities through Work From Home (WFH). In order to keep the work and hobby of farming maintained, the researchers made an automatic flushing device that can be controlled remotely via a PC. This automatic flush tool is based on Internet Of Things with Message Queuning Telemetry Transport (MQTT) protocol using HiveMQ broker via browser. The program is designed using Arduino IDE software, Node-Red as a control, and NodeMCU as a microcontroller. This tool has an accuracy rate of 95-100%. This proves that the tool can be put to good use in everyday life.

**Keywords:** Internet Of Things (IoT), Message Queuning Telemetry Transport (MQTT), Arduino IDE, NodeMCU, Node-Red, HiveMQ broker