# Rancang Bangun Sistem Akses Pintu Otomatis Menggunakan Piranti *Internet Of Things (IOT)* Berbasis *Web Service*

**Alfi Musfiroh Anjani**
*Program Studi Teknik Komputer, Fakultas Sains & Teknologi*
*Universitas Teknologi Yogyakarta*
*Jl. Ringroad Utara Jombor Sleman Yogyakarta*
*E-mail: alvianjani3@gmail.com*

**ABSTRACT**

*The existence of technology makes it easier for humans to carry out various kinds of activities to have a significant influence on various aspects of life. Many agencies still access doors manually. It is overwhelming for officers to open every door to be used. In simplifying the method, it is necessary to apply automatic door access control technology. Internet of Things can be interpreted as an interconnection between devices that can connect one device to another. All activities carried out by the user in accessing the door will automatically send information to the webserver about the validity of the ID used in the access. This system uses NodeMCU as a microcontroller which already has a wifi feature that can be controlled remotely. For RFID detection using the MFRC-522 RFID module and a solenoid as a door lock and a relay for the automatic switch. Furthermore, the servo works to open and close the door automatically. When the officer taps the card on the RFID reader, the door opens and will close and lock automatically in a few seconds. The final result of this final project concludes that this system works by tapping the card on the RFID reader, which is then processed by NodeMCU with the help of a wifi/internet connection so that the ID can be entered into the database server. The design of an automatic door access system using Web Service-based IoT devices can be implemented in various offices, campuses, and schools. Each room has a door as the most crucial access in and out of each individual.*

**Keywords:** *IoT, RFID, Web Server, Door, Solenoid*