

DUAL BOARDING ROOM DOOR SECURITY SYSTEM BASED ON WEMOS D1, ARDUINO UNO WITH IOT AND RFID METHODS

Toni Septiana

*Electrical Engineering Study Program, Faculty of Science & Technology
University of Technology Yogyakarta
Jl. Ringroad Utara Jombor Sleman Yogyakarta
E-mail : tonitotti35@gmail.com*

ABSTRACT

The Indonesian government has regulated the implementation of housing and settlement areas through PP No. 14 of 2016 which requires every housing entrepreneur to implement the provisions in building a housing or rental building for a boarding house that is equipped with an adequate and guaranteed security system. There are still many boarding room doors for men and women who use ordinary keys or also called conventional keys, this is still often the case for theft of goods belonging to people who are boarding because as the technique of thieves increases or develops in opening doors. The thieves who often steal valuables from the owner of the boarding house by forcibly breaking into or damaging the boarding room door. Not only that, sometimes people who stay at the boarding house forget to lock the room door when they are left to sleep, that's where the weakness of the regular room key lies. This also makes the boarding room door that still uses an ordinary key, making the boarding house owner forget which rooms have or have not paid the boarding rent. To overcome this problem, a boarding room door double security lock was designed with the help of an Arduino Uno microcontroller, Wemos D1, RFID, door lock solenoid and an IoT system that utilizes the Blynk application on Android. The results of the boarding room door double security lock prototype can work well and obtain success that can minimize the crime of theft of valuables. As for the RFID system, it will still work when the IoT system has a connection problem, so it cannot be accessed by the owner.

Keywords: *Arduino Uno, RFID Module, Blynk, Wemos D1, Door Lock Solenoid.*