ABSTRACT

Physical accessibility is always paired with the ease, speed, and security of a security system. But lack the security system physically on new devices still has drawbacks, such as duplicate keys, the distance authenticates of the NFC, as well as the distance and speed of in the authentication process. These things lead to vulnerabilities that pose a risk to physical access.

This study, will design and implementation of security access system on the door using a microcontroller Wemos D1 connected with the solenoid as the door latch. With minimal size and the use of WiFi as a medium of communication between devices with the Internet as implemetation of the internet of things. This device minimizes the business users to gain access through the door with a smartphone authentication process.

Based on the results of testing with a variety scenarios, these devices can perform its function as a physical security device with a 12V maximum power and speed of response to the solenoid relay on reception of hardware. The device is able to minimize the shortage of physical access systems previously become more simple, mobile and easy, with no hassle management.

Keyword : Door, Wemos, ESP8266, API, IoT