

IOT IMPLEMENTATION IN HOUSE DOOR SECURITY SYSTEMS

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ABSTRACT

Most people always carry their house keys when they leave the house. This can pose a risk of losing the key. Apart from that, every family member who wants to enter the house must have a spare key so they don't have to wait for the key bearer if the house door is locked. This research aims to implement IoT in a home door security system. The research methods include identifying tool needs, model design, model implementation, and tool testing. The tools that will be used in the system include ESP32, relay, and doorlock solenoid as a replacement for the previous door lock. ESP32 will connect the solenoid component to Firebase. Every input from the application will be stored in Firebase and this input is used to control the relay. As additional security, every user is required to register on the application using a Google account or cellphone number. The registered cellphone number will receive an SMS containing an OTP code to verify the user's account. The result of this research is an Android application that can control IoT devices installed on doors. In this way, each occupant of the house can travel without having to worry about the door being unlocked and other occupants of the house can unlock the door without having to wait for the key bearer.

Keywords: *Android, ESP32, IoT, Door, Relay.*

