DESIGN AND BUILD HOUSE DOOR SECURITY WITH E-LOCK SYSTEM USING FINGERPRINT AND MICROCONTROLLER BASED ANDROID APPLICATIONS NodeMCU ESP8266

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ABSTRACT

This study aims to provide information about door security systems using fingerprints and applications installed on Android smartphones. Fingerprints that have been accessed by the fingers of family members will provide data to the microcontroller to be processed and then will give orders to the solenoid to unlock the door. In addition, this security system can also be controlled via an android smartphone that has installed applications designed by the author himself, such as to lock the door again and provide push notifications when the door is opened by force when the situation is still locked. The research methods in this thesis include literature study, system design, mechanical manufacture, hardware and software design. Based on the tests that have been carried out, both on mechanics and on electronics that have been made and seeing the purpose of the research, it can be concluded as follows: this equipment has been tested and can be used to assist the security system on the door of the house using fingerprints and android smartphones.

Keywords*: Fingerprint, Android Smartphone, Solenoid.*