

ABSTRACT

Home security requires a more efficient and practical security system. Overcoming this requires the Internet of Things (IoT). This study evaluated the performance prototype by reading the distance from a radio frequency identification (RFID) reader using an E-KTP and the quality of service performance from an android application. The design of this study is smart door locks using RFID sensors, ESP32-CAM, solenoids such as door locks, E-KTP as RFID tags and also an android application in the form of Telegram to monitor home security. NodeMCU V3 ESP8266 as data storage and connected to the internet in a realtime database instead of a conventional key. This research focuses on prototype performance and quality of service of feature applications running well. Shows that the performance of the prototype can read an identity card (E-KTP) with a maximum distance of 2.5 cm, if the E-KTP id matches the NodeMCU 8266 selonoid memory it will actively unlock the door. If the door of the house is opened with an E-KTP ID that is not registered in memory, you will receive a telegram notification in the form of a photo message to take photos of objects and selonoid is not active. Sending message notifications to Telegram takes less than 15 seconds, the accuracy of reading cards on RFID is 100%, at an accuracy rate of sending telegram notifications of 80%.

Keywords : Esp32-cam, telegram notification, automatic door, NodeMCU8266, RFID

