

## **ABSTRACT**

*Key is an essential tool to open the door in order to enter into a room. The door of a house can reach 10 or even more with many doors it will be many keys to be used, plus the key reserves. No wonder if one person has a lot of keys that must be taken and saved. It is not effective and safe, where many crimes occur due to key duplication very easy.*

*The research for this thesis provides a solution would be a system where Android smartphone can be the key to all doors with MAC address authentication. User can access any door when they have the privilege using internet connection. After the door closed it will be locked automatically. In this application user can also use the log to see who accessed the door. The database didn't store inside the door but its store on the cloud and only admin can access the database.*

*Based on test on this final project, the system can lock, unlock, and view log the doors from user and admin with 100% accuracy in normal condition. Smartphone can access dan update server with average time 92 mili second. 165 of 185 people feel more efficient if key replace with Kunci Elektrik application.*

**Keyword** : *Door Latch, MAC Address, Android.*