

ABSTRACT

Nowadays there are many payment system processes in the apartments bill are still using manual by paying cash or through banking accounts transfer. The apartment's occupants should do the payment by come to the office or cashier's apartment or transfer their payment to apartment's bank account. There are some inefficient things in this debt payment way. It will be difficult if the occupant run out the KWH of electricity because they have to rebuy and refill the electricity tokens and also the occupants have more obligation to pay other bill such as security and cleaning due. They way of this apartment's bill payment require much time to be spend for the occupants for paying the bill.

From the problem above a system that can include all bill in one payment are needed. This system will facilitate the occupants in easy apartment bill payment. So there's a chance for the occupants for the easier way of payment by using an ID card where the occupant should fill the card's balance to get the access. The occupants can use the ID card for their apartment's bill payment by choose the payment menus and check out their left balance. Beside for the payment, the occupants also can refill their electricity tokens for their room as needed and other payments as well. This ID card can be used through a reader card tool that will be placed in every single room of occupants.

System work 3 minute after it turned on. Transaction menu and databases connection from hardware to server success. . Result from electricity examination comparison from power and current from tool, from power and harmonics analyzer prova 6830. Test run at first time it turned on and when the program start. When it turned on power that RFID need is 2,762 W with current 21,3 mA, when NFC need power 1,854 W with current 14,3mA. When the program start power that RFID need become 3,306 W with current 25,5mA and for NFC power that it need 2,191 W with current 16,9mA. So for the power and current need NFC smaller then RFID, which mean from the test NFC used 33,727% lees than RFID for power and 33,725% for current.

Keywords: *payment system, apartement, RFID, NFC, raspberry pi, server*