

ABSTRACT

Dormitory is one of the campus facilities that was built for freshman students to live in the first year at Telkom University. There are several dormitory facilities that residents are still complaining about. One thing that residents complain about is the building's security facilities. Incidents of students losing personal belongings still often occur so that security facilities still need special attention. Based on this, it is necessary to have an access security system that is able to validate visitors who access the dormitory.

This final project design an access security system using RFID for visitor identification purposes. The access security system used in this study is integrated with a MySQL database so that the data sent by the RFID sensor can be stored systematically and easily managed. A website was also added to make it easier to monitor visitors, such as viewing information on access times and visitor identities and processing data.

The results of the access security system that has been designed using an RFID module can function properly. Each component managed to produce output as expected. The results of the QoS test get the highest throughput value is 3016.066667 bps, the lowest packet loss value is 0% and the best delay value is 0.345220269 s.

Keyword : Radio Frequency Identification (RFID), Solenoid Door Lock, Relay, Buzzer, Internet of Things.