

ABSTRACT

Most of the bicycle parking systems in open areas today still use the traditional method of using only a piece of paper provided by the parking attendants and in the open area without a guardrail so that the sense is still minimal supervision. Lack of efficiency of the parking process so prone to cheating and crime theft becomes a weakness of the parking system in this open area.

To solve the above solution then created a security system where bike parking by using RFID technology (Radio Frequency Identification). RFID itself is a method of data communication by using a predetermined frequency to exchange data within a certain distance. To implement this bike security system using RFID sensors are controlled using Arduino Uno. The hardware used this parking system tool will be placed inside the box design mechanical bicycle rack made.

The conclusion that can be drawn from making this Final Project is the error rate of reading and RFID identification is 0%. Based on the test results, the maximum detection distance RFID tag customer against RFID reader is 4 cm. Overall, this bike safety system can be implemented as a prototype that has the potential to be developed and become an alternative solution for bicycle safety.

Keywords: RFID, Arduino Uno, Parking System