ABSTRACT

Digital driving licenses use RFID cards as data storage media of the owners. The stored data is also encrypted using the AES-128 algorithm so it is very difficult to forge. Digital driving license created by using a SIM Digital writer. Digital driving license works by affixed to the SIM reader attached to the vehicle. SIM Digital reader serves as a validator, the tool is checking whether a valid driver's license or not. If valid, then the vehicle can be turned on. Conversely, if the license is not valid, vehicle will remain off. The results of this study consisted of SIM Digital writer, SIM Digital reader, and a digital driver's license. Both SIM Digital writer and reader made using Arduino. The trial results of SIM Digital writer have successfully write owners encrypted data into the card, the SIM Digital reader then also managed to work can only read digital driver's license with the type and the same embedded key with the reader.

Keywords: Digital Driving License, RFID, AES-128, Arduino.