

## ABSTRACT

Paying the toll fee manually needs quite long time and it causes a long line to the toll booth, therefore it needs a system to make the payment easier and also to quicken its process we use a system that enables toll users' account to be cut automatically. This system is able to identify all of the toll users because it's connected directly to the database.

In this final project, it's using a RFID (Radio Frequency Identification) technology. It's a system which has two components, one is called 'tag' and the other is 'reader'. The tag is attached to the car, while reader is on the toll booth. The identification process begins when a car with the tag attached on it passes along the toll booth so reader could read the information using the electromagnetic wave without needing physical contact. Data which has been received by the reader is transferred to database to be proceeded until the process of auto-debt is done. When the information has been collected successfully, system will send acknowledgement to users so the portal will open automatically and the transaction receipt is received.

This system works accurately if tag is placed within 10 cm from reader and able to process a transaction in short time within a second. If this system is implemented, can be ensured there won't be any traffic jam which makes paying the toll fee inefficient.

**Keywords:** Toll-Road, Automatic Payment, RFID