

## Abstract

In order to facilitate movement of traffic on the highway safely, comfortably and efficiently, one of its aspects related to toll collection system is done. Toll Collection System is a series of activities related to the transaction service to process toll of road users, control over the execution of transactions, the administration of toll revenue and other process that support it. To improve service toll roads in Indonesia, the toll collection system or aspects of payment transactions at the toll gates have strived to be accelerated.

One option to speed up can be done by applying an electronic payment system known as Electronic Toll collection (ETC). Electronic Toll Collection is an automated electronic payment system which can improve efficiency in the toll transaction time thus reducing queues of vehicles by using Radio Frequency Identification (RFID) technology as an automatic access to the media, thereby reducing the manual door ministry toll.

This final project designed a subsystem of data processing application that can support the payment process automatically, using RFID as a sensor. With this system no longer expected cash payment transactions at toll gates so as to overcome congestion of vehicles at the toll booth and can provide transaction processing is more efficient than the manual toll system.

**Key words:** RFID, road tolls, Automation Systems, Sensor, Database.