ABSTRACT

This project is to design an instant fine deducting system for traffic which has a similar concept with the *Electronic Toll System* (ETC). In ETC operation system, the driver's credit will be deducted when they pass the toll without requiring them to stop. However, in this system the drivers' credit is only deducted when they offense the law regulations.

This fine deducting system uses RFID technology to receive data from the drivers (i.e. serial number). The microcontroller which is used to control the operation of the whole system, will interpret the signal from the reader and send it to the PC. The PC then processes the data and performs its specific tasks accordingly. The action which is performed by the PC is to deduct fine from the drivers' account as they passes through the red traffic light. Besides, the system can reload credit for the driver.

Towards the achievement, the fine deducting system performs with some shortcomings. This includes the PIC unable to communicate with the reader, the database of fine deducting and reloading credit work together as well as the PIC programming. However, these problems are solved with continuously troubleshooting.

For enhancement, this system can be designed to perform toll deducting according to the distance travelled by the driver. Besides, a penalty points system can be added to penalize the driver for not obeying the traffic regulations. An ANPR system can be included in the system to identify the drivers who haven't paid the toll fees or fines.

Overall, the project outcomes have met the requirements of the specified objective and aims.