Abstract

In Sri Lanka the public transportation system is in dire need of being streamlined, as the commuters face untold hardships on a daily basis mostly due to mismanagement. An area which needs attention is the collection of fares, as there seems to be much confusion between conductor and the passenger, because the transaction is done in cash. Another area is the tracking of passengers while they are on board and exiting the bus. Everything told it seems that bus traveler's life is anything but easy.

This dissertation is for the introduction of RFID card which is a user friendly automated card to solve the above problems.

RFID card is much more convenient and simple in comparison to paper based ticketing and handheld ticketing machine. This user friendly ticketing system will automatically identify the passenger and deduct fare in an easy an uncomplicated way and convenient ride to and from his destination. The unique ID in this card is used to identify passengers as well as making transaction and storing information regarding the travel in a database. By accessing this database, it is possible to check information regarding the travel, thereby enabling authorities to make necessary changes if any, and take sound decisions for the improvement of the service. As an example enhancing the fleet of buses and directing them to bus routes which are most frequent by the traveler. The in-bus module consists of GSM, RFID reader, LCD display and an Ultrasonic sensor. The RFID is used for ticketing purposes, GSM is used for get the passenger details including cost of the travel account balance. Ultrasonic is for passenger boarding detection and passenger information will be stored in a database. Database facilities will give an assurance to both passenger and authorities about the transaction and all travel details. This system will reduce the human error and effort.