

# **Electronic Bus Ticket System**

N.M. Fazil and V. Hiroshaan

*Department of Mechatronics Technology, University College of Jaffna, Sri Lanka*

In Sri Lanka transportation is mainly based on road network. Buses are the principal mode of public transport. Bus service is provided by the Sri Lanka Transport Board (SLTB) and privately owned buses. Main objective of the project is to make passengers journey comfortable, facilitate conductor and drivers work easy and eliminate the cheating done by passenger by automating the ticket system. It also helps driver to easily identify the bus stops where he needs to drop the passenger and how many passengers. Therefore, he can drive smoothly. System contains conductor display unit and driver display unit. Both units connected by the Bluetooth module (HC-05). In conductor module, conductor prints a ticket to a passenger by keypad and send the bus stop detail to the Arduino, then the Arduino transfer signal to Bluetooth module. Finally, Bluetooth module receive the command and it send to the next Bluetooth module of the driver unit. Then driver unit receive the signal and it display how many passengers to drop on each stop, on its display. Then cheating also will be reduced. Driver know in advance where to stop the bus. Passengers no need to ring the bell to inform the driver to stop the bus. Therefore, the journey will be smooth and comfortable for both the passenger and driver. If the system is embedded with google map, then it will be more convenient for driver. As a future implementation to make the system more efficient incorporate google map to display the bus stop.

*Keywords:* Electronic bus ticket system, Bluetooth module, Autonomous, Arduino