

Electronic Ticket Checker

Neha Kawadkar and Manish Karandikar

Embedded Creations Nagpur, India

Abstract

An electronic ticket is a digital ticket. In our day-to-day life, while travelling we have to keep change for ticket. In proposed system a person having this E-ticket would consist a balance. Here, person has to swap this card in a card holder and then travelling charges will be deducted from this card. If a person doesn't swap the card then he can't enter into the bus because door latches will not activate until card is swapped. If the person wants to leave the bus then he will have to swap the card again. The machine will automatically deduct the amount of the ticket till the last bus-stop a person wants to reach.

Keywords: E-ticket, Recharge unit.

1. Introduction

There are many machines developed in these last few years for ticket collecting in buses. But you need a conductor to operate that machine. In the proposed system no conductor is required. In our day-to-day life, while travelling in bus we have to keep change for ticket. In proposed system a person having this E-Ticket mould consist a balance. Here Person has to swap this card in a card holder and then traveling charges will be deducted from this card. This card is basically EEPROM. If person does not swap the card then he can't enter in to the bus because door latches will not activate until card is swapped. If person wants to leave the bus then he has to swap the card again in card holder. If he forget to swap the card, then all amount required to reach at last station will be charged. There is an LCD which will display serial number of card, name of bus station and amount in card. It is required to have minimum balance required to reach up to last bus stop. The card i.e. ticket is basically EEPROM used to store balance information. There will be LCD screen (16x2) for displaying particular person's amount and bus stop name. If balance in the card is less, then "low balance" message will be displayed. We also provided recharge unit for recharging card. When there is low balance or no balance in the card. No need to keep the change as passenger has already paid money. No need of conductor. It is echo friendly, as we not using paper as a ticket, it saves the extra money which we always give to

transport, in our general bus transport system rent is 5.75 rupees but we always have to paid 6 rupees as a round And also no one can travel without ticket. m figure at that time we loss 25 paisa always which will never happen in this system. And also no one can travel without ticket.

2. Methodology

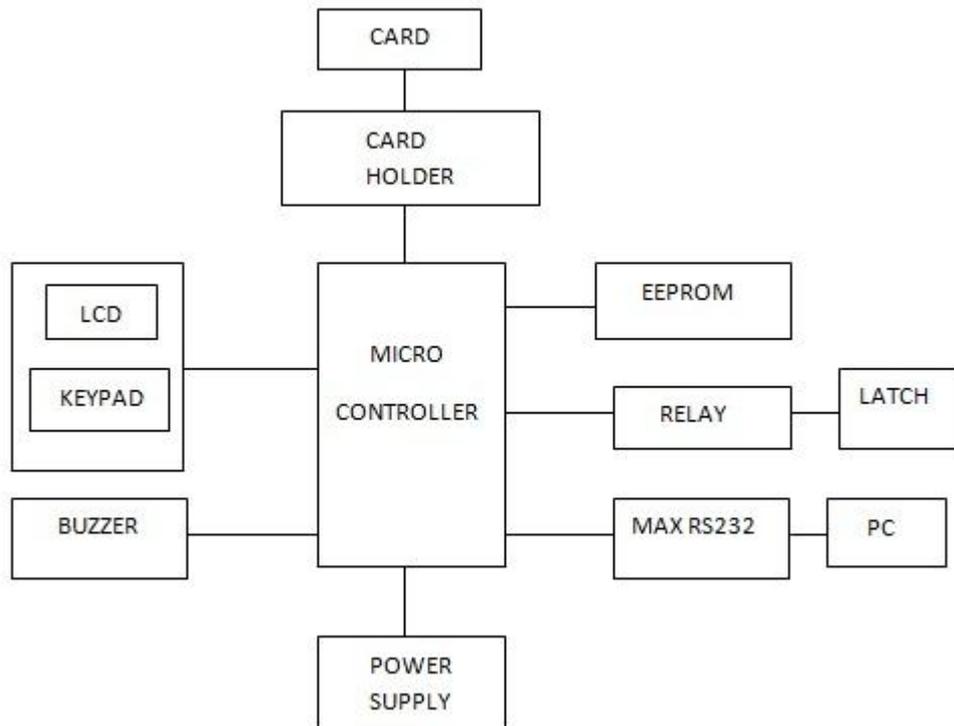


Fig. 1. Block diagram.

In this system person has to swap the card both times i.e. while entering and leaving the bus. When a person enter in to the bus his card should contain minimum balance required to reach the last bus stop. Driver has to press Next button, whenever new bus stop come. At that time buzzer will be ringing and also passenger can see the name of bus stop on LCD. When person enter in the bus his balance up to last bus stop will get deducted. And when he again swap the card then his remaining balance will be added.(i.e. the balance from the bus stop where he leave up to the last bus stop will get added).

The actual mechanism of the system is as follows:

CASE1:

When a person enters in bus at 'A' bus-stop and he will leave the bus at last bus-stop D. The Case 1. Is shown in Fig. 2. below.

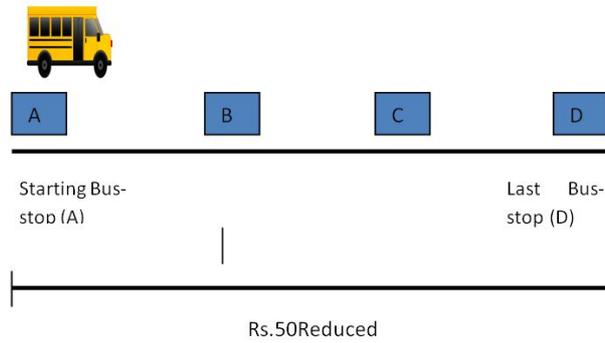


Fig. 2. Case 1.

Suppose the rent from starting bus-stop to last bus-stop is Rs.50.

CASE2:

A person enters in bus. After swapping the card, his balance up to last stop gets deducted i.e. Rs.50.

CASE3:

If passenger wants to leave the bus in between at stop (B). Then he will have to swap the card at that particular stop so that the rent from starting bus stop to the bus-stop he wants to leave will be added. The Case 3. Is shown in Fig. 3 below.

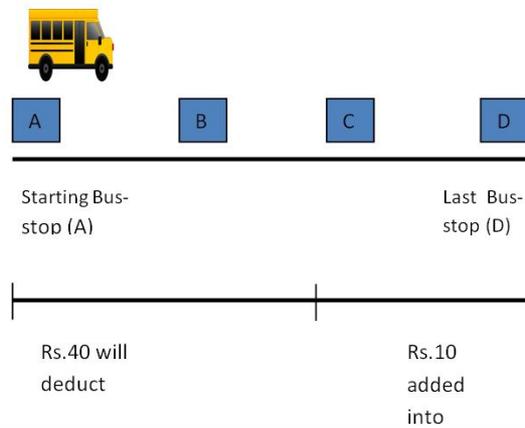


Fig. 3. Case 3.

i.e. 10Rs will get added in balance. But In generally when we take ticket from conductor from 'A' to D' and we leave the bus at 'C' stop. Then rent from 'C' to 'D' will get wasted. One more advantage is that in local bus if rents are 50.80Rs. We have to give 51 Rs to conductor. That 15 paise always wastes. But this is not happen in our system. Also we keep the latch. The latch will open the door only after swapping the card. So no one can travel without ticket. As next bus stop comes then driver will

press 'Next button' and the name of bus stop will display on LCD. At the same time buzzer will get ring to alert the traveler. As Next switch is press, then it will display name of bus stop and its rent. At that time buzzer will ring and LED will glow.

There is a recharge unit too inside the bus. This unit is provided to the driver of the bus. If a traveler is out of balance he can recharge the card by paying the top-up amount to the bus driver. The recharge unit is also connected to computer.

3. SHORTCOMINGS OF EXISTING SYSTEM

- In existing system the card has no uniqueness. if card is lost then it can access by anyone
- If Person forgets to swap the card while leaving the bus then amount required reaching up to last bus stop will get lost.
- In this system at a time only one person can enter in the bus.
- This card should contain minimum balance required to reach up to last bus stop.

4. FUTURE SCOPE

In our system Driver has to press 'Next button's next bus stop come. In fume we can develop this system by using GPS system. In this system the name of bus stop will be displayed automatically. This system can be implemented by using RFID so that many people can enter in the bus at a time.

5. CONCLUSION

E-Ticket provides convenient bus travelling with secure transaction. Travelers do not need to keep change. It is echo friendly due to no use of paper for ticket. It avoids extra expenses during traveling and unauthorized persons to maintain security. This system requires every bus to have privilege of card reader which will depend upon the network. The E-Ticket transaction needs bus to be in network.

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