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RFID BUS Ticketing System

Prof. Manaswini Parlikar[1], Harshal Bangar[2], Aishwarya Nikhal[3], Ashar Bare[4], Omkar Zare[5]
[1]*Department of Information Technology Engineering, Pimpri Chinchwad Polytechnic, Pune*

Abstract: Public transport systems such as the Metro are very well developed these days. There is growing demand for intelligent transportation systems in the market that need to improve passenger safety, convenience and current public transport performance. The paper-based ticketing system for charging bus fare is considered a source of major financial losses in India. It is difficult to assure every passenger that they will buy a ticket. After arriving at the destination, the paper ticket becomes useless for travelers. The number of untold tickets per day is very high. In the technological age, India should focus on developing an automated system for charging bus fare. Therefore, this paper proposes an automated card operated system using RFID and GPS for bus travel in India.

I. INTRODUCTION

Today, everything in the world is smart and digital. There has been a lot of development in the transport sector too. However, public transport buses in India are an area where such new developments have changed their faces. Working for public transport is one of the fields of intelligent vehicle research. Each bus is controlled by a conductor. The conductor collects money from each passenger and gives him a ticket. To overcome this, we will create an IoT based ticketing system. The purpose of this project is to calculate the passenger using the IR sensor and automatically calculate the distance traveled by the passenger using the GPS sensor and the corresponding amount is debited from the RFID card.

II. MODULE IDENTIFICATION

This project can be used by bus commuters traveling in the city. The apprentice can view daily ticket transactions. The passenger is given an RFID card and when the passenger enters the bus, he / she must swipe the card into the RFID reader and also swipe to the destination of the device. The purpose of this project is to calculate the passenger using the IR sensor and automatically calculate the distance traveled by the passenger using the GPS sensor and the corresponding amount is debited from the RFID card.

To avoid a paper base ticketing system

No conductor interference

The ticket history is stored in the database

The number of transactions is automated

1) Swipe the RFID card on the passenger receipt
2) Store the GPS location in Swipe
3) Send SMS to travelers with GPS location
4) The traveler swipes the RFID as soon as it arrives at the destination
5) Calculate the distance from Step 2
6) Reduce money

III. MODULE DESCRIPTION

This bus is often used by regular bus travelers for intercity travel, at a profitable cost compared to daily bus fare.

Bus ticketing is done manually without a computerized user's retail record.

To overcome this, we decided on our project topic

The conductor controls each bus. The conductor collects money from each passenger and gives him a ticket. To overcome this, we will create an IoT based ticketing system

IV. LITERATURE SURVEY

Generally, each bus is controlled by a conductor. The conductor collects money from each passenger and gives him a ticket. Initially, printed papers or tokens are used as tickets. Handloom machines are used to print tickets nowadays. There are many disadvantages to this system. The passenger must carry the ticket until it reaches its stop, the conductor must make sure that everyone has the ticket, the ticketing time is comparatively high and the paper is required to print the ticket. For example, if a passenger wants to travel by bus. He should take the money with them. Then the conductor collects the money and he gives the ticket. All passengers must repeat for this. This leads to more time and waste, along with human resources and energy. With an AFC system connected to an automated vehicle location system, the data records a transaction, with the time and location of the journey,

along with features about each passenger bus ride, route, vehicle and travel card. Some of these were recorded for the purpose of allowing board ticket checking, but the addition methodology enables the introduction of innovative spatial verification features.

Internet of Things in Automatic Fare Collection

An automated fare collection system (AFC) is the primary station equipment consisting of an automated gate machine, ticket vending machine and ticket checking machine. In this application, a stable and integrated platform is required to smooth passenger flow during peak hours; At the same time, all data is collected and transmitted to the server.

B. In recent advances in RFID-based automatic bus ticketing, various technologies have made significant advances in various fields for public welfare and public transport is one such area [6] - [9]. With advanced technologies such as Radio Frequency Identification Devices (RFID), RF modules are emerging due to the near and high mileage of future public transport bus systems.

V. CONCLUSION

This project for the ticket is presented as a fully automated, reliable, transparent and convenient system.

RFID cards are recyclable, much more convenient than paper-based ticketing systems.

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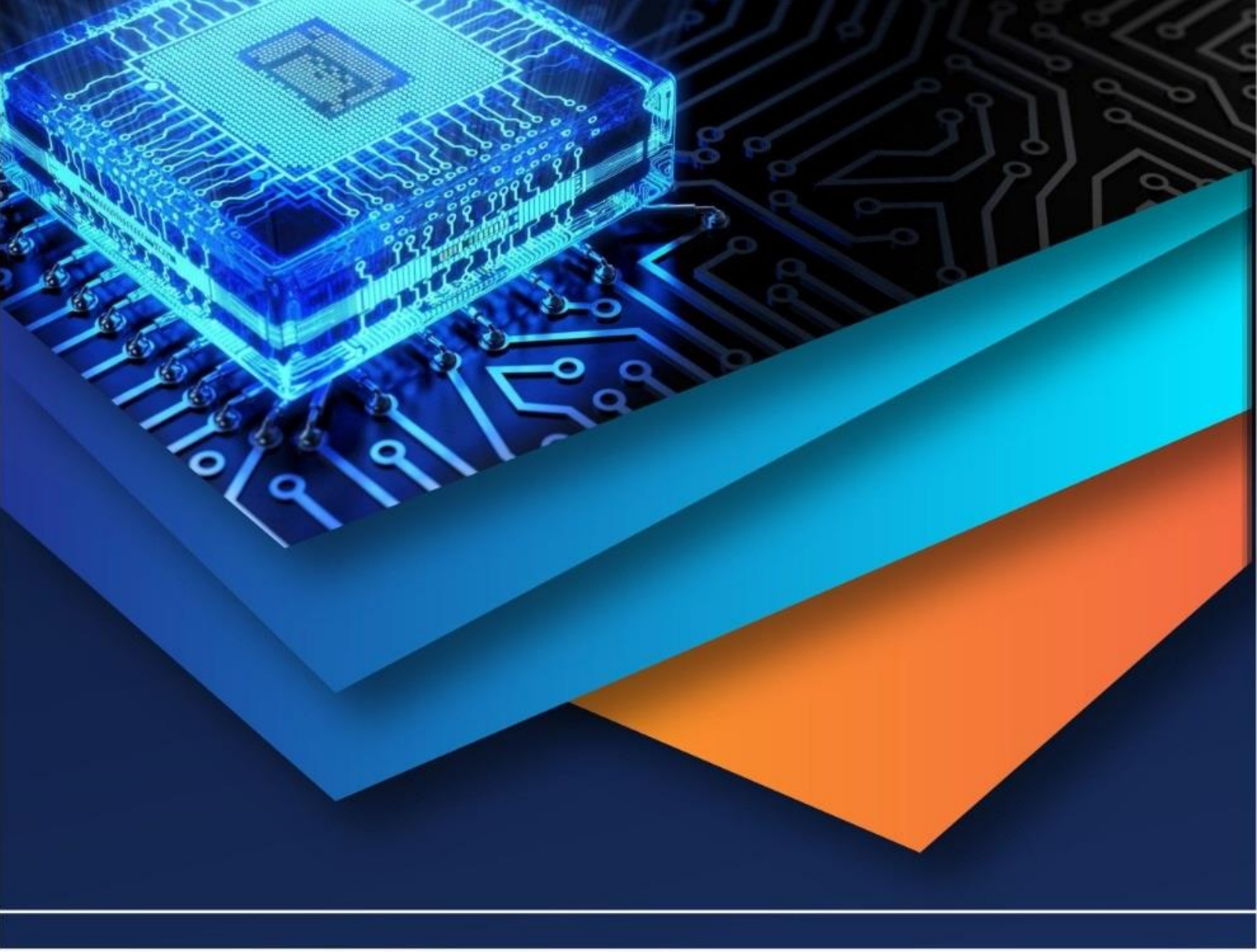

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