

# TITLE: INNOVATIVE BUS TRANSPORTATION SYSTEM (IBTS)

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## ABSTRACT

*Public transport is the cheapest and most reliable transportation system in India, hence it has always been popular with the masses. Buses are an inherent means of public transport which plays an key role in transportation in India. Today, in the generation of Digital Indian (a movement launched by the Government of India) and cashless Economy. Public transport needs to adapt the technology advancement. The major issue in local buses are about issuing bus tickets, which often to leads to conflict between the passenger and conductor. Considering this we are developing an android application and web application which will provide systematic and easy bus ticketing experience for both passenger and bus depo. There are four types of login in this system like passenger, conductor and driver, controller, bus depo person. The android application provides a QR code for quick money transferrin bus ticketing. Voice is a new feature that allows passengers to search for better experience. This system is based on monitoring the bus inside the bus stand and in order to notify the high officials about the departure of a bus delay. If there is some obstacles then an emergency notification send to higher authority. It also provide the facility like route of bus, schedule of buses, reservation, E-pass, E-ticket. By this application we can reduce the use of paper tickets which also help in green India.*

**Keyword:** - *Public Transport, Bus Tickets, Android Application, QR Code, Login System, Voice*

## INTRODUCTION

Buses are a very important mode of transportation in both, village and city. As a large no of people board buses everyday it is often difficult for passenger to get ticket and maintain it. So using this system we can digitalize money for bus payment, ticket generation and storage travel detail. Passengers are able to book, pay for and print their e-tickets online from this application.

There are four types of login in this system like passenger, bus depo person, driver and conductor etc. Reservation services, ticket booking, scheduling etc. Facility provide in passenger login. In the driver login the driver will see how their task, how they are done and completion will be done accordingly.

Reservation, E-ticket, E-pass these tasks of checking will be done by conductor. This smart bus ticketing system will raise the online ticketing system to a new level by introducing QR code for the convince transaction of bus ticket payment. Transferring the money using QR code not makes it safe but also easy to use by just scanning.

In controller login the controller assign the task to conductor and driver and check the task completed or not. In bus depo person login there are multiple person check reservation, ticket book, E-pass, private hotel stop, bus depo stop, bus depo stop, parcel service, yatra services.

There are buses accessible for passenger travelling to different location but not many passengers have complete information about buses. Complete information mainly number of buses that go to required destination bus timing ,the routes through reach the bus would pass time taken for the bus to reach the destination. Voice is new innovative feature for those people who cannot able to write or illiterate people.

## **PROBLEM STATEMENT**

Buses are the widely used public transport by Indian citizens to reach their destination in daily life. The idea of this project is to change the current ticketing system of the bus into a digitalized and efficient system through android application. The new conductor and driver, passenger, controller, bus depo person login system helps depo manager to solve various issues created in depo. The voice search system is new and progressive system for better experience. This application may help the citizens without having the problem in crowded bus .

## **LITERATURE SURVEY**

Sanam Kazi, Murtuza Bagasrawala, Farheen Shaikh, Anamta Sayyad [1] in the paper “Smart E-Ticketing System For Public Transport Bus” This paper aims to give an agile and smooth ticketing experience and an organized way for seat allotment to the commuters. If implemented it will give a new ticketing experience to commuters as well as contribute a part of cashless economy. With the growing popularity of smart-phones and mobile wallets this is the right time to adapt this technology so that people will become familiar with it and this will improve the overall services provided to passengers.

Feng Bao [2] “A Scheme Of Digital Ticket For Personal Trusted Device” This paper aims to merge digital ticket and digital money for quick result . Our focus on the constant format that covers all digital ticket and digital money. The paper is more request based. This paper is focus on digital ticket and money.

Naila, Ajith, Muhammad Murshid M.A [3] “Smart Bus Ticketing System” This paper aims to give a smooth ticketing experience for both conductor and passenger. The paper control the problems of transport system in individual's life. The system gives passenger a first experience of ticketing which will be easy to understand and helpful by going cash- less, reducing time for buying tickets and storing the details of travel of passenger. The projects also contribute little towards the nature by paperless transaction. The project also helps in the idea of making digital India.

Vrushali Andhale, Dhanshree More, Aishwarya Nair [4] “Mobile Application For Bus E-Ticketing System” The certain and critical appearance of this system is to change the overall scheme of the traditional or manual bus e-ticketing system. This system mainly focuses on the social issue of people who are facing the problem of travelling in day to day life.

Searching and retrieving of records would be easier since there would be a search module that would filter all the needed records. Having a search module will lessen the time of looking for records that is done manually on the existing system. There are many facet still to be appraise concerning the implementation of an online ticketing system in a bus depot, with special attention to the routines and facilities that the new system brings to the operational management of the whole depot system.

## EXISTING METHOD

- In the existing system, reservation, parcel and yatra services are included.
- In ticket booking conductor has enquire to each passenger about their destination and generate ticket using paper roll.
- This process is very time consuming and create conflict between conductor and passenger.
- If the given ticket is lost by passenger the passenger has to buy another ticket and it is loss of money.
- Considering above problem the existing methods of bus is not efficient enough for time management.

## 3. PROPOSED SYSTEM

The main idea of this project is to overcome the problem faced by every citizen in bus ticketing and tracking system of local buses. The proposed systems consist of an android application. The android application has accessible and friendly interface for all depot person and passenger to use. So that it will be easy to use even for people who are not much educated. Application consists of separate registration for depo person and passenger. Our application will provide the user with a list of buses for their route that bus stop ,time of bus and expected time for the bus to reach that specific destination based on the data the user can predict the time for particular bus stop.

Online pass system is basically used for students. Using this application they can easily renew their pass. Using pass service students does not need to go physically to bus stand for renew pass. This application help people to know the time and route of the bus for their journey.

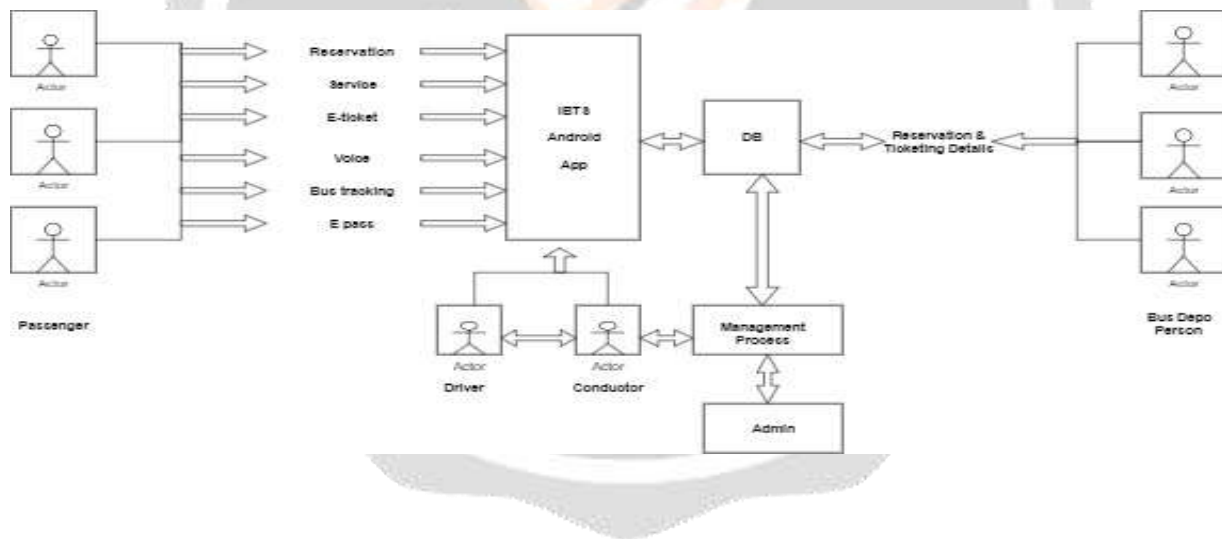


Fig -2 System Approach

## 4. CONCLUSIONS

The project Innovative Bus Transportation System (IBTS) is for computerizing the working in a bus depo. It is a great improvement over the manual system. In bus managing system, we thoroughly check the availability of buses. We can book and buy the bus ticket and pay bus ticket online. It makes the passenger easy to get bus tickets online instead of queueing up to buy the bus ticket. The passenger can book reservations, e-pass, parcel services, yatra services, and passengers also find out easily the route of the bus. The user can search easily through the voice system.

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