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Ticketbee-digital ticket system forbus

Mrs. Pallavi T P[1], Anjali[2], Ashvitha B[3], Harshit Kumar[4]

[1]Assistant Professor, Dept. of CSE, Atria Institute of Technology, Bangalore, India

[2,3,4]Student (B.E), Dept. of CSE, Atria Institute of Technology, Bangalore, India

Abstract: Global Forest Resource Assessment has statedthat nearly,000 to,000 trees are diced down encyclopedically daily for paper product which ends up in deforestation which consecutively contributes to temperature change. Further more in any vehicle System, once the passenger reaches the destination, the ticket isn't any longer useful and is ultimately thrown down. to beat these issues, a wise marking system to support the conception of digitalization by introducing a paperless system for transport System(PTS) is presented named as ticketbee. motorcars are an integral means of transport in India. In metropolitan metropolises like Mumbai and Delhi, 10- 15 million people travel through vehicle motorcars daily. moment, within the period of Digital India(a crusade launched by the govt. of India) and Cashless Economy, transport has to acclimatize the technology advancement. while the general public transport motorcars arefurnishing fairly satisfactory services, there is a demand for smart and dependable system. the crucial problems enduredby the passengers are overdue waiting time at machine stops, lack of plutocrat there, waste produced because of paper tickets, negligence to produce seat to other passengers, etc. therefore, to produce an nimble and smooth marking experience, we have got proposed the smart operation from that we'll track machine status, book seat for passenger, can reserve ticket digitally and mode of payment are cashlessthereby promoting digitalization and smart metropolisesenterprise.

Keywords: E-ticketing; Public transport bus; Seat allotment; Digital India; Cashless Economy; Smart city initiatives.

I. INTRODUCTION

Motorcars are the most popular and accessible mode of transportation in India. Further than1.6 million motorcars are registered in India, and the public machine sector operates, 000 motorcars carrying roughly 70 million people perday.
As per the details of expenditure on transport, motorcars arethe most favored mode of public transport in both pastoral and civic India, followed by bus cabs. In order to serve these numerous commuters daily, the marking installations availablein the being system of public machine transport is homemade i.e. copping

The ticket from the captain. still, machine transportation has not been suitable to meet the requirements of the growing trip demand. The problem with machine services is that they aren'tdependable. Several problems live in the public machine transport sector which includes destruction of too important paper, use of cash for copping tickets, etc. Some other common problems faced by commuters in machine transport are overdue waiting time, shy time for getting tickets, negligence of furnishing seat to other passengers, etc.

A Smart Ticketing system has its benefits while numerous people may argue that a switch to paperless will be more precious, in terms of software and tackle conditions than the traditional paper- grounded system. The return on this investment could be enormous. Going paperless not only hasa huge impact on the terrain but also saves costs of essay, paper, labor costs associated with it. By taking into consideration the below parameters, a smart marking systemusing GPS are introduced.

To overcome all the below- mentioned problems, we've proposed a more advanced system for smart metropolises which provides e-ticketing and seat allotment installations for the civilians. The problem of paper destruction can be overcome by the use of E-tickets whereas the use of cash canbe reduced by using Digital portmanteau.
The stoner can check the force of seats, book tickets. However, our algorithm will efficiently lot the seat which will be vacant in shortest time, If seats are not vacant. The stoner are ready to bespeak the ticket only they need account on ticketbee app and can pay digitally through the app thereby passing veritablycomfortable and smart booking mileage. druggies who do not have a sensible phone are going to be ready to perform all the functions with the backing of captain.
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To overcome all the above-mentioned problems, we have proposed a more advanced system for smart cities which provides e-ticketing and seat allotment facilities for the civilians. The problem of paperwastage can be overcome by the use of E-tickets whereas the use of cash can be reduced by using Digital wallet.

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The user can check the supply of seats, book tickets. If seats aren't vacant, our algorithm will efficiently allot the seat which will be vacant in shortest time. The user are ready to book the ticket only they need account on ticketbee app and can pay digitally through the app thereby experiencing very comfortable and smart booking utility. Users who don't have a sensible phone are going to be ready to perform all the functions with the assistance of conductor.

II. E-TICKETING FOR SMART CITIES

E-Ticket shortened as electronic ticket is the digital form of paper ticket. An e- ticket system is a more effective and dependable system of ticket entry, processing and marketingand used for companies in the airline, railroads and other transport and entertainment diligence. E-Ticket is generally appertained as a trip card or a conveyance card. In our proposed system E-Ticketing is used for public transport machine. E-ticketing systems have achieved worldwide celebrity and public transport can surely profit from these technological advances(1). E-Ticket will contain the following information like ticket number, machine number, machine number plate, departure position, destination position, chow, number of tickets, etc. E-Ticket will be generated in smart phones.

Seat Allotment

Seat Allotments in the public transport are used to designatea certain pre-negotiated seat which has been bought out and held by a commuter. Allotments can be bought for a specificperiod of time similar as a whole route, and also can be distributed to other commuters.

Need for E-ticketing and seat allotment

Ane-ticket offers numerous advantages for commuters, including security, inflexibility, cost and convenience. At the same time, it also provides the standard assurances of the traditional paper ticket, similar as seating choice and other flexibilities. There's also lower threat of stolen or lost tickets forthe ticket buyers.

The following are the features that describe the need of etickets

Commuters can bespeak and buy thee-ticket online, withoutintervention of captain(2).
Commuters can pay for thee-ticket using no cash but bydigitally(3).

Still, there's a threat of this getting lost, If you buy a physical ticket. The great thing about e- and mobile tickets is you have 100 access to it.
Thee-ticket is securely maintained in the electronic form(4).The commuter doesn't need to carry the tickets in hand.
Last but not least, buying ane-ticket or mobile ticket online reduces your carbon footmark and It's the little way that make a difference in a sustainable future.
Transport problems aren't common for all the places, but they live far and wide. Further, transport problems are substantially due tonon-availability of indispensable modes and shy transport services. Indeed though the public sector transport motorcars have been furnishing fairly satisfactory services, there's a feeling that these services are unreliable.

Following are some of the most common problems in the being system faced by the commutersA. Undue staying time at machine stops.
The commuters are ignorant of the time they've to stay for amachine to arrive. This gratuitous waiting for motorcars is a waste of time and causes considerable dissatisfaction to thecommuters. also, it's clear that further waiting time causes overcrowding. The hamstrung time schedules affect in unstable intervals between motorcars which makes commuters stay for an unknown quantum of time.

B. shy time for getting tickets

occasionally, the motorcars are so crowded and the trip distance is so small that getting a ticket results into chaos. Chancing the captain and getting a ticket in crowded motorcars is the biggest problem in peak hours.
Non-refund of balance due to delicate of holding changeIn some cases, it's possible that both the commuter and captain don't have change. In these cases, the captain may not reimburse the balance to the commuter. Also, utmost of the commuters don't co-operate with the captain by extendingthe exact quantum of chow.
For case, giving a fifty Rupees currency note for a twelve thirteen Rupee ticket may irritate thecaptain, especially when the machine is overcrowded.

Negligence to give seats to other passengers

The commuters occasionally have to travel all the way standing in the motorcars. There's no particular algorithm followed for seat allotment i.e. the commuters don't get a seaton time base. Some commuters stand throughout their trip while some sit as soon as they board the machine grounded on vacuity of seats.

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Inordinate waste of paper
The quantum of paper needed to induce machine tickets is fartoo high as nearly all the passengers take tickets except thosehaving passes. This results in inordinate paper waste which can be stopped by generatinge-tickets.

Use of cash
Passengers buy tickets using cash which contradicts thesystem of cashless frugality. There's no other way to buytickets from the captain except of cash. This opposes theaction of the Indian government to go cashless.

IV. PROPOSED SYSTEM

By considering the problems from the being system, a more advanced system has been proposed. In the new system the stoner will be asked to register formerly at the launch. The operation proposed will allow druggies to bespeak machine. This will be applicable once the stoner connects to the operation. Once the stoner is connected to the device, the stoner will be asked to givethe source as well as destination.

Our operation will also give the stoner with a list of motorcars for their route from that machine- stop. The list will also contain the information about seat vacuity and the anticipated time for the machine to reach that particular machine stop. Grounded on the information the stoner has to decide the machine he she wishes totravel with. The anticipated time of the machine will becalculated by using the GPS enabled device which willbe with the machine captain.

Still, the stoner will be allocated a seat, If the stoner books a ticket in a machine where the seat is available.This will affect in lower waiting time for maturity of the druggies. Applicable quantum for the ticket will be givendirectly from the stoner's account which will be handed by him at the time of registering so as to support cashless system and an acknowledgement will be sent to the stoner's app which would contain information similar as ticket number, source and destination of theroute, time of reserving the ticket and the seat allocatedto that user. However, they can cancel the ticket too, If stoner changes his/ her mind.

Considering a case where the stoner doesn't have a smart phone, also the stoner can bespeak the ticket with their musketeers or family members phone. A normal SMS would be shoot to the stoner which will actas a ticket.
The machine captain will now just have to corroboratethe ticket and the seat number.

VI. PERPETRATION

For perpetration purpose, an operation needs to be developed which will have a introductory enrollment runner asking for stoner particular information and a login runner if the stoner changes his/ her phone or uninstalls the operation. The stoner won't be asked tologin every time except for the cases described over. Once the stoner logs in, our system will check whetherthe stoner is connected to an operation or not and likewise allow stoner to bespeak the ticket. After that select source and destination When the stoner books the ticket, an applicable quantum will be charged fromthe stoner's account and an acknowledgmentE-ticket would be transferred to the operation

All the below information would be stored in a databasewhich would be real- time i.e. altering every time the stoner reaches the destination the data entry of that particular seat would be changed. As we know that the same machine can be used as different machine route figures(e.g. machine no 3 can be latterly changed to beused as 137 for some different route) and hence every entry of the machine will be grounded on both the machine number plate and its number.

VII. RESULT ANALYSIS

By enforcing this design, numerous disadvantages in current marking systems is remedied and thereby supporting the cashless frugality. quantum is debited directly from the stoner's bank account to overcome the change issue.

CONCLUSION

In summary, this design aims to give an nimble and smooth marking experience and an systematized way for seat allotment to the commuters. If enforced it'll give a new marking experience to commuters as well as contribute a partof cashless frugality. With the growing fashion ability of smart- phones and mobile hold all this is the right time to acclimatize this technology so that people will come familiar with it and this will ameliorate the overall services handed to passengers.

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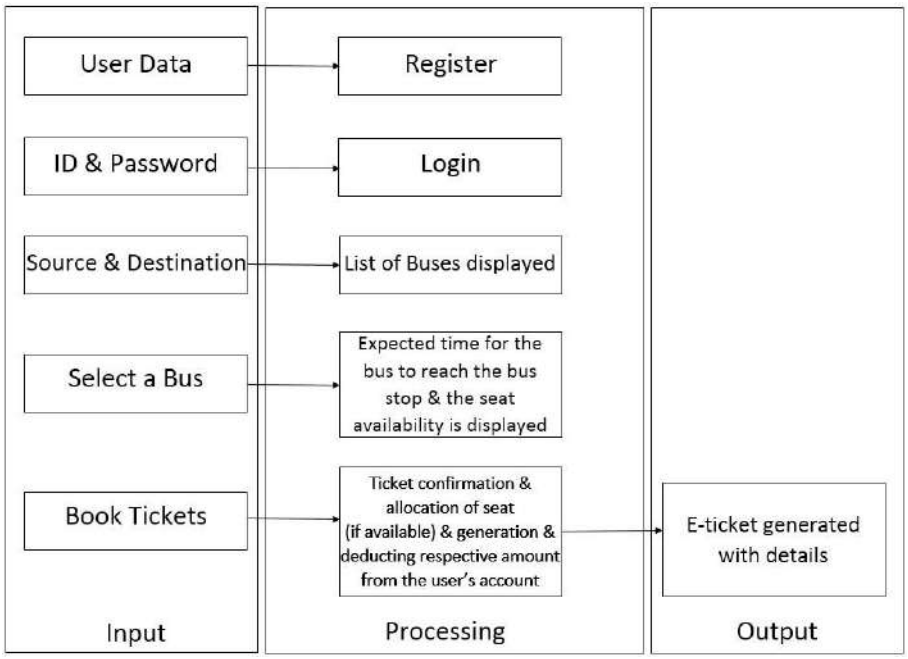

Fig .1. Block diagram of proposed system

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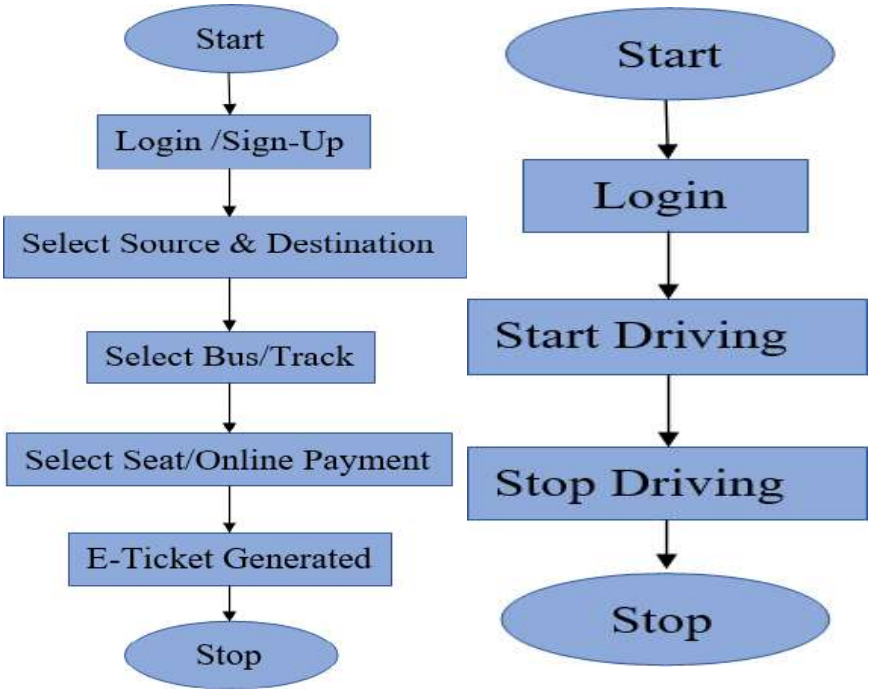

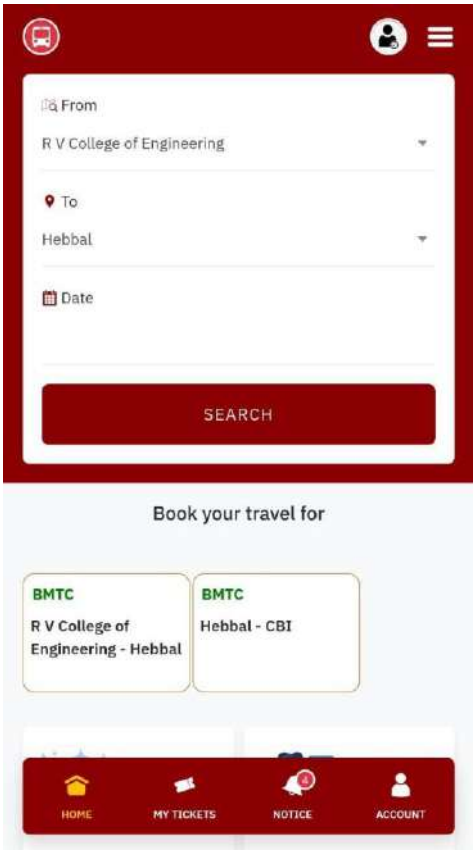

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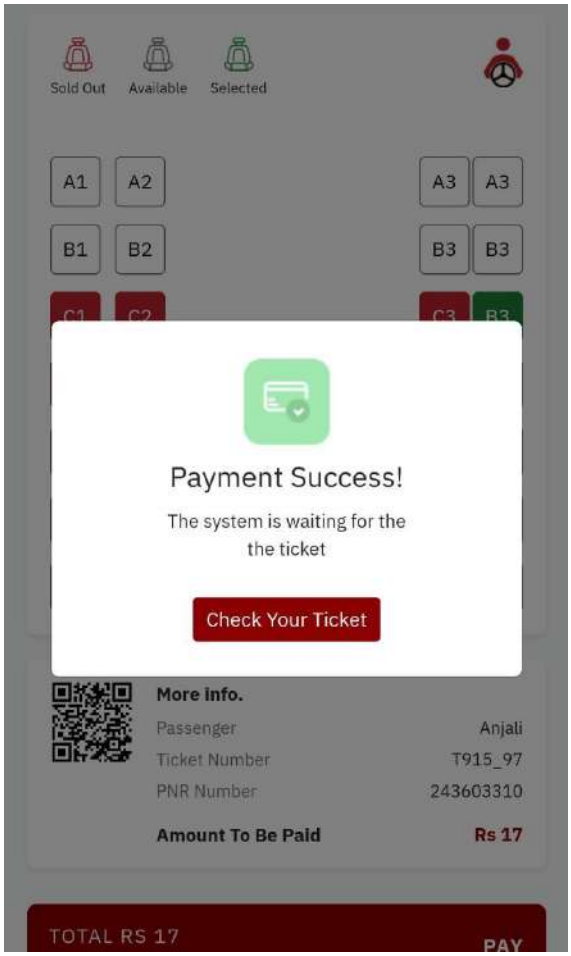

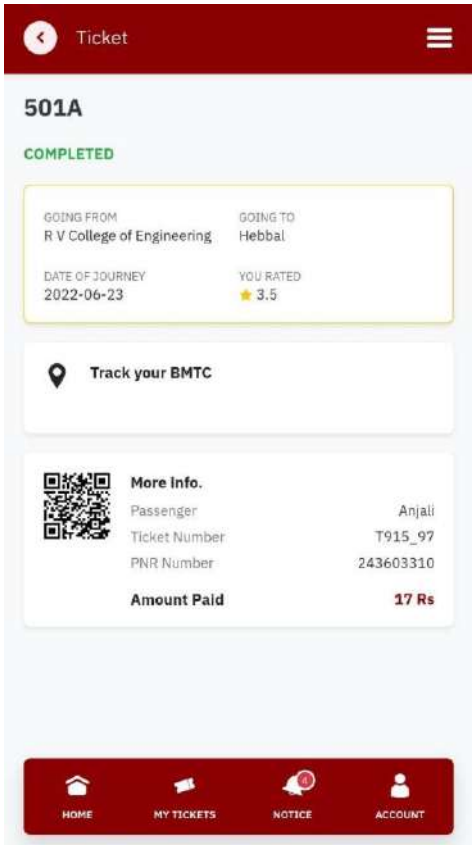

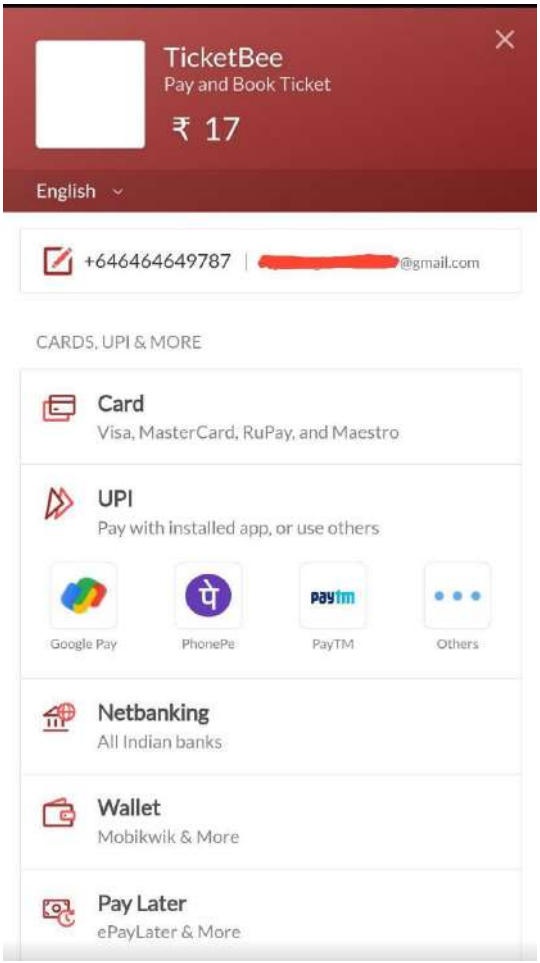

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