A Survey on E-Pass for Bus

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ABSTRACT

To overcome the issues that people face nowadays, the E-pass system is generated as a web application. Each time people travel by buses suffer from a lot of hectic rules and regulations to generate pass physically. The E pass system is the web application system that is going to be developed to generate E passes digitally by adding necessary information and documents to generate passes. The main feature of this work is to make the application user-friendly to make their lifestyle easier. By adding all the necessary information regarding the pass, the pass is easily generated. The Bus Pass Generator Application is a user-friendly and efficient mobile application designed to simplify and streamline the process of acquiring and managing bus passes for public transportation systems. This innovative application leverages modern technology to enhance the convenience and accessibility of public transportation for both commuters and transit authorities.

KEYWORDS: E-Pass, Digital Pass, Access Control, Identity Verification, Contactless Pass, Authorization System, Pass Validation, Reporting and Analytics.

I. INTRODUCTION

The E-Pass Generator Project is a digital solution designed to streamline and modernize the process of issuing and managing passes or permits for various purposes. This system leverages technology to provide efficient and secure access control, whether it's for events, transportation, healthcare, or any other scenario where controlled access is essential. The E-Pass system for buses can streamline ticketing and improve passenger convenience. E-passes are electronic tickets that passengers can purchase and store on their smartphones or smart cards. They offer benefits such as contactless payments, reduced paper waste, and the ability to track usage and plan routes more efficiently. This innovation can enhance the overall bus travel experience for passengers and make public transportation more accessible and sustainable. The E-Pass system for buses represents a significant leap forward in modernizing and optimizing public transportation. E-passes, or electronic passes, offer passengers a convenient and efficient way to access and pay for bus services. With the use of smartphones or smart cards,

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travelers can purchase, store, and present their passes digitally, reducing the need for physical tickets and cash transactions. This technology not only enhances passenger convenience but also promotes a more sustainable and environmentally friendly approach to bus travel. Additionally, e-pass systems can provide valuable data for better route planning and service improvements, ultimately benefiting both passengers and transit authorities. Lots of IOT based technologies are used for advancement of safe, secure and smart travelling [1].

II. LITERATURE SURVEY

Sr. no	Paper title	Author name	Year of Publication	Problem solved in this paper: Existing Problem Statement	The technique used to solve the problem: Existing Problem Solution	What will be future work: Future Scope
1.	online bus pass managem net system[2]	Mrs.M.Jas mine Sagaya Jonita Ms.V.Dha rs hini	2022	This system is the solution for passengers who are facing problems with the current manual work of bus pass registration and renewal.	The Online Bus Pass System is mainly helpful for student who are facing problems with the current manual work of bus pass registration and generation as well as getting bus pass online and renewing online without any irritating process.	The proposed system will work in all the configurations. So, the Online bus pass system is used to generate online bus passes and give the Digital bus pass at home. It will be verified by an Aadhaar card and user ID.
2.	Bus Pass Managem ent System[3]	Shinde Vijaya Rajendra1 , Pawade Sakshi Sandip2 , Prof. Nawale S. K.3	2022	Bus Pass Management system is a web-based technology that will manage the records of pass which is issued by the administration and also help to provide online bus passes to	The Software powered by PHP assures clear and systematic services to the company. This easy-to-operate system helps to access and change user details and prepare efficient printing potential. The software is designed to prepare good and	The process of getting a bus Pass Apply Online, view bus information and Cost details for the given source and destination, Add New bus details and Ticket amount details by admin and all Customer details, and Bus pass details and Renewal

				people who need to travel daily. Bus Pass Management System is helpful to bus administration by reducing the paperwork, and time consumption and makes the process of getting bus passes as simple and fast	error-free details. The database is driven by my SQL which provides portability. The resumption procedure can be done Session base as per user desire. Based on that resumption interval amount	Details, and Payment Details are maintained more simple and easy
3.	Digital Bus Pass Generation System[4]	Vasanta Sanga, Priti Navale, Mayuri Shirke, Dhanashri Patil	2021	useful for people who are facing problems with the current manual work of bus pass registration and renewal	the technique is used to solve the problem by providing QR codes to generate pass easily	The proposed system will work in all the configurations. So, the Online bus pass system is used to generate online bus passes and give the Digital bus pass at home. It will be verified by Aadhaar card and User-id
4.	Online Bus Pass System[5]	Lecturer Vikas Burgute,S ha mrao Ghodake, Priyan ka Koradkar, Sonali Dhaware	2020	"Online Bus Pass System" is useful for passengers who are facing problems with the current manual work of the bus pass system and renewal. His/her renewal or registration can be done through	the technique used to solve the problem by providing a user-friendly application to generate passes with low-cost	This project has a wide scope for future development, as the user's requirement is always going to be changed which includes tracking the location of the bus. It is helpful for the user to find the current location of the bus and it

				online payment. In the existing system the user has to go on a particular date and time if they fail then the renewal done		provides the feature that is online booking of tickets and seats for the journey and making changes to the system as per user requirements
5.	Survey on Online Bus Pass System[6]	Vikas Burgute1 , Shamrao Ghodake2 , Priyanka koradkar3 , Sonali Dhaware4	2019	passengers who are facing problems with the current manual work of the bus pass system and renewal. His/her renewal or registration can be done through a credit card and any other online payment.	This online bus pass system application will help candidates save time and renew bus passes without standing in line for hours near counters	ONLINE BUS PASS SYSTEM" is developed using Active Server Page.Net as the Front end and MS SQL Server as the back end.
6.	Online Bus Pass System[7]	Prof.Jagrati Shekhawat, Honey Amin, Harsh Amin	2019	An Online Bus Pass Generator application serves as a convenient and efficient tool for users to apply for and manage their bus passes electronically.	The Online Bus Pass System is mainly helpful for student who is facing problem with the current manual work of bus pass registration and generation as well as getting bus pass online and renewing online without any irritating process	The proposed system will work in all the configurations. So, the Online bus pass system is used to generate online bus passes and give the Digital bus pass at home. It will be verified by Aadhaar card and User-id
7.	Smart Buspass System Using	Pandimuru gan V.; Jayaprakash R.; Rajasheka	2019	Those who wish to take a bus pass the government bus and also renew their bus	The technique is used to reduce the work of customers to get past who travel by bus.	online-based app for applying for and renewals of bus pass in government bus

	Android[8]	r V.; Yogeshwar Singh K.		pass within a specific period can easy by using this app		
8.	Study of an Effective Online Bus Pass Generation and Renewal System[9]	Niteesh Joshi1 , Mahesh Waghmare2 , Sujeet Bhosale3 , Ankit Singh4	2016	Online Bus pass Generation system is already implemented in Andhra Pradesh as "Andhra Pradesh State Road Transport Corporation". The only drawback is the pass application form is available online	Provide an effective facility for bus passes; users can get a pass from anywhere and anytime	This project has a wide scope for future development, as the user's requirement is always going to be changed which includes tracking the location of the bus.
9.	Development of an effective online bus pass generation system for transportation service in Karnataka state[10]	Parashuram Baraki1 , Sandhya Kulkarni2 , Spurthi Kulkarni3 , Arpita Goggi4 , Keertipriya I	2015	This project aims to provide an effective solution for maintaining Bus pass information using a database. The system has two logins, one for the user and the other for the admin.	Online bus pass Generation system is a web application for people to get Bus passes online. This system was intended to develop an application to perform functionalities	Accessing the basic information for authentication and providing a bus pass to a particular person without placing him/her in a queue for a long time is the technique used to solve the problem by providing user-friendly application to generate a pass
10.	Online Bus Pass[11]	Parashuram Baraki1 , Sujeet Bhosale3 , Ankit Singh4	2015	This project was created to safe, reliable, and time-saving service for people	To provide an effective solution for maintaining bus pass information using the database.	The future scope for the project the places and the information relating to places can be uploaded. we can't use an E-cash system in the future

III. LIMITATIONS OF EXISTING WORK

- Digital Divide: Not everyone has access to smartphones or the internet, which can exclude certain individuals from using e-pass systems, potentially leading to inequalities in access.
- Security Concerns: While digital passes offer enhanced security features, they are not immune to cyber threats. Data breaches, hacking, or fraudulent pass creation can pose risks.
- Lack of Standardization: In some cases, there may be a lack of standardization in e-pass systems, making interoperability between different systems and venues challenging.
- Accessibility Issues: Persons with disabilities may face difficulties with digital passes, as some apps or systems may not be designed with accessibility in mind.
- Dependency on Technology: E-pass systems rely heavily on technology. System failures, technical glitches, or power outages can disrupt access control and cause inconvenience.
- Reliability on Mobile Devices: Mobile passes may not be suitable for all situations, as they require a charged and functional mobile device, which can be a limitation in certain contexts.
- User Education: Users need to understand how to use the e-pass system. Lack of awareness or understanding can lead to user errors and difficulties.
- Scalability: Scaling the system for large events or widespread adoption can be challenging, and it may require robust infrastructure and support.
- Legal and Regulatory Compliance: Complying with local, regional, and international regulations, especially in the case of health passes, can be complex and challenging.
- Lost or Stolen Devices: If a mobile device containing a digital pass is lost or stolen, it may pose a security risk or create access issues.

IV. CONCLUSION

The E-Pass Generator Project represents a significant advancement in access control and pass issuance through digital means. This project harnesses technology to provide efficient, secure, and convenient solutions for various industries and scenarios. However, it is important to be aware of the project's limitations and challenges, such as issues related to security, privacy, and accessibility.

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