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# Railway Concession E-Pass

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**Abstract:** Digital India should be a campaign which has been launched by our Indian government to make all the government services to easily available to the citizens electronically by improving the whole online infrastructure and by increasing Internet connectivity or making the country digitally empowered within the field of technology. But there are still some government offices and colleges that still are using their old manual/offline process to do day to day work.

Central and Western Railway in Mumbai has provided the concession in train pass for the students below the age group of 25 who are using the facility for going educational institutes. The concession forms are provided by the colleges to students which are allotted by the Central and Western Railway of Mumbai. Students need to await hours during a queue to urge this type. The concerned college authority features a cumbersome task of filling the scholar details manually on the shape. Student Railway Concession pass is one of the offline process which we have to form it online so it can save the time as well as paper (Save the planet by saving paper and time) & paper work. It aims at making the method efficient, quick and easy-going

**Keywords:** Mobile number, Student PRN (Permanent Registration Number), Institute Code, Online Railway Pass, OTP, Web portal and ATVM Machine (Automatic Ticket Vending Machine)

## I. INTRODUCTION

Progress in web technologies has led to rapid climb of online systems for day-to-day tasks like shopping, paying bills, reservation etc. Some government offices and colleges are still using manual process in day to day work. One of them is Railway IRCTC Mumbai. Every process Ticket Booking System is digitalized except the scholar concession form process. There are more than 600 to 700 affiliated colleges with Mumbai University in Mumbai and suburbs including undergraduate and postgraduate. Approximately more than 1 lakh students are studying under this colleges. And more than 45k/50k student's apply for railway concession. Each and every college has his own unique process for applying the railway concession. Some college have their own online website to gather data of scholars and a few colleges are still battling offline process which takes quite 2-3 days or sometimes if office authority person is not available students have to wait for hours and hours or sometimes even for several days to collect their forms with college stamp and signature of college authority. Either college provide online service to student to fill their form or fill it manually at the top student has got to take that form to railway ticket counter and railway authority person do manual process to fill student details and check their college id to verify student details. It takes minimum 5-10 minutes to process every student's form. Also students spend an half an hour in the queue. For saving time of student, college and Railway authority and also the paper work of college and Railway authority. I have the solution that can make this process digitalized and it will save most of our time as well as at Railway authority and college office.

## II. PROBLEM DEFINITION

Offline Process makes it more slow and hectic as are in technology world. We hate to wait right? So, I guess everyone has face this process irritating as we don't get our pass on time. The Central and Western Railway, Mumbai send the tutorial institutes, stack of concession form booklet; each consisting of fifty forms. The concession pass that a student gets with the assistance of this type is valid for a duration of a month or three months depending upon the preference given by the student. And every time, the scholar has got to get a fresh form. So this process of giving and taking concession forms goes during the tutorial year.

The manual process of issuing concession, demands students to visit the concerned authority and give all their details. The authority then manually fills all the info within the form. Sometimes our college authority isn't available to offer us form or sometimes even after filling form we've to attend for our HOD/Principle signature and to print college stamp on it. This is a very lengthy process. Particularly during those times when sizable amount of scholars come along together to issue their forms. A college report has got to be generated for each booklet, wherein, against every form number, details of the scholar who issued it, is mentioned. This report is an acknowledgment to the railway authority of every booklet. Even this report is manually written by the scholars.

The manual filling of forms brought many snags within the process. Students need to wait in queue for hours during their college hours. The concerned authority would half-fill the shape to lock the work. The source (railway station near to their current residential address) and destination (railway station near to their college address) for which students get concession is fixed.

The destination is usually fixed, however the source is manually filled within the form. If students give wrong details and if no validation is completed, a special source are often filled which results in misuse of the power . All of this eventually results in an ill-filled form. There are no full proof records are maintained of previously issued forms. So a student can issue a form any number of times, however consistent with the Railway rule nobody can issue a second form before his/her current railway pass expires. This eventually led to misuse of the facility.

Sometimes once we lost our student pass we don't have another procedure to urge back new one. All these conclude to a lot of paper work and much of your time consuming process. Even after getting our form authorized by college we go and stand in front of railway authority to get our pass detail fill and then they give us pass. These is additionally time consuming or sometimes if the signature or college stamp isn't proper printed on form they don't give us pass they return our form. Or cancel it.

### III. SOLUTION TO THE PROBLEM

Our aim of this research paper is to make this railway concession form process to digitalize or e-pass. We will create a web portal to collect students data so every student can fill this form from using web portal.

It will be very convenient process for students to fill their form using web portal and paying their money online. And they will get the e-pass and also they will get the notification on mobile number along with the unique code and after entering the code with their mobile number they can print their pass at the railway ATVM Machine (Automatic Ticket Vending Machine).Or they can show it by simple logging in their web portal using their login id and password. So there is no change for misplacing of their pass.

For uniqueness we use the PRN (Permanent Register Number) to check the status that he is still studying or not. It will reduce the misuse of the concession process. Also four digit institute code will be required to check his/her college. Mobile Number is mandatory for students to fill it in form for uniqueness. Because it is use as uniqueness.

### IV. CONCEPTUAL WORKING OF SYSTEM

- 1) *Step 1:* Students will fill the registration form using web portal, with basic information such as personal and travelling information and also the college details including PRN, institute code, etc. This will be one time registration. The above all the information will be stored in IRCTC concession database this will make the data unique because of this.

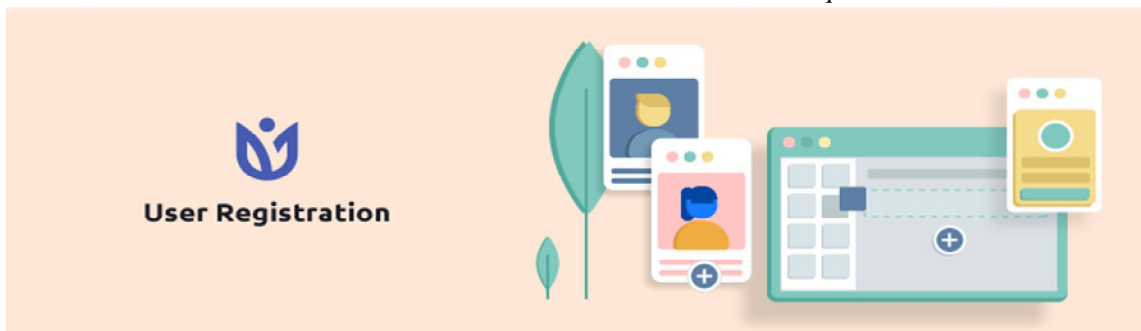


Fig -1: Student Registration or Sign up

- 2) *Step 2:* After registration student will get the login id as their mobile number and they can create their password by their own. So they can login on the portal.



Fig -2: Student Login

- 3) *Step 3:* After login at the time of login the information will be verified at student's database and they will receive the OTP (One Time Password) this will indicate they correct student and it will be verified with IRCTC database and university database.

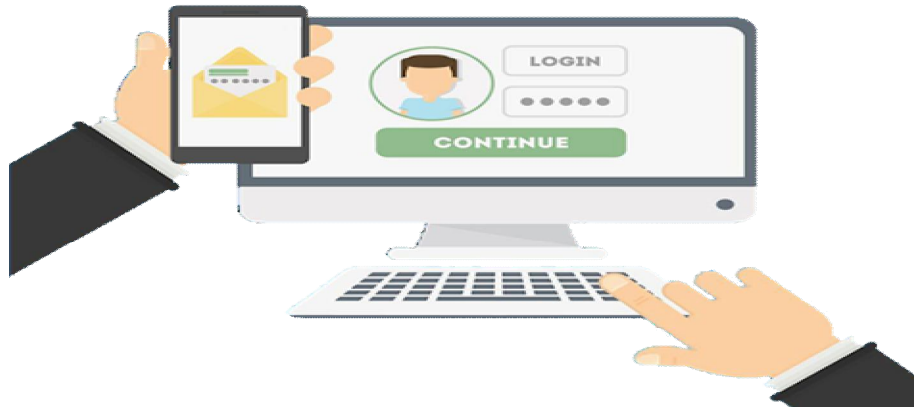


Fig -3: Enter OTP

- 4) *Step 4:* After login students will be able to see their dashboard and they will see a option of applying for concession form, change password, request status, previous details, print, FAQ.



Fig -4: Student fill form for apply e-pass

- 5) *Step 5:* Students can apply for the e-pass the form will be filled automatically and they can verify and edit the form and after submitting they will get the payment options which they can pay by various methods.



Fig -5: Student pay amount online

6) *Step 6:* After payment successful the pass will generate which will be seen on the dashboard and the information of the pass will be forwarded to registered mobile number from IRCTC directly and they can print the pass from the code which has been send to the mobile number.

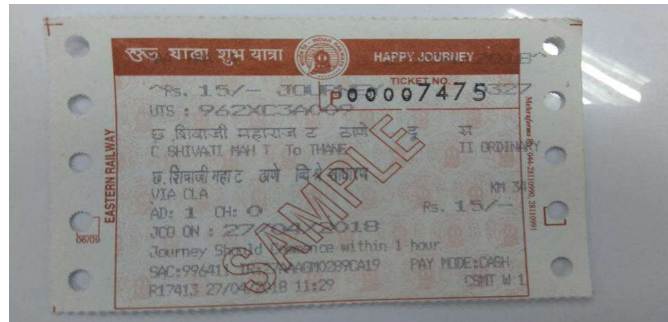


Fig -6: Generate online e-pass

This process will take 2-3 minutes after registration. And it will take 10-15 minutes at the time of registration. This can save the valuable time of students, college authorities and railway authorities. Also it will save the paper.

### V. DIAGRAMATIC REPRESENTATION OF SYSTEM FLOW

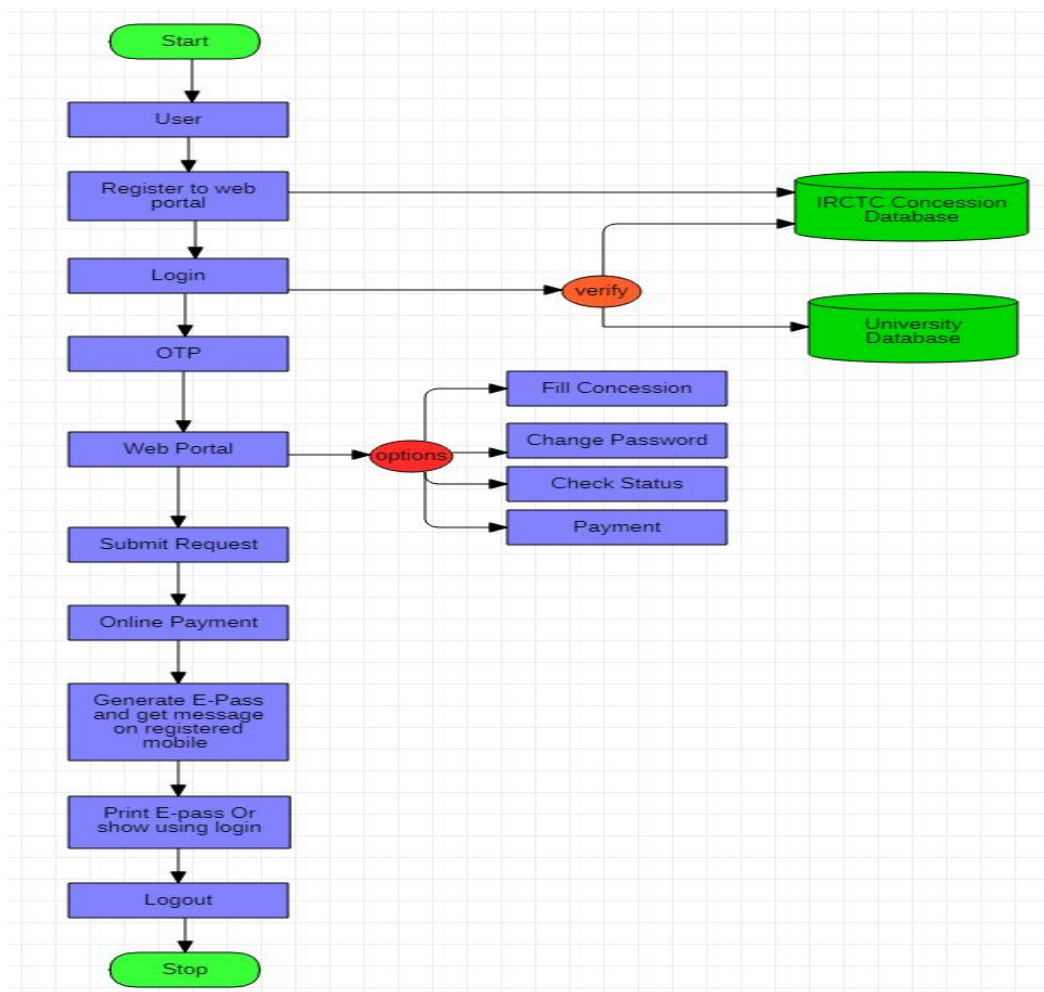


Fig -7: Flow Char

## VI. ADVANTAGES

Automation of a manual process have the basic advantages of reduction of manual effort, perfection of the data processing, proper validations and verifications. However, this web application provides a platform where those tasks that were not possible earlier can be efficiently and easily performed.

- A. All the details in the form are now properly and completely filled.
- B. Every user who takes a e-pass for the second time does not need to fill extra details relating to their respective last pass. This demand can now be satisfied without errors.
- C. In case of any change required, the student has to edit the data. Thus, the IRCTC concession database is kept up-to date.
- D. Misuse of forms has been entirely eliminated.
- E. Nevertheless, the system is user-friendly for the user.
- F. For any improper input, suitable error message is displayed.
- G. This web portal will save the time as well as paper.
- H. Student pass cannot be miss-placed.

## VII. FACTS AND FINDINGS

The merging of online technologies will help to enhance efficient connectivity to internet in order that it'll be easier for each day to take care of database & keep data secure. This Application helps to enhance by covering the drawbacks of Manual Process. This Application has not yet been implemented yet but it has very useful effect over all colleges in Mumbai. It will help to form process fast and secure and may save time and much of paper work.

## VIII. CONCLUSIONS

The idea of Application will get a wider scope, because it provides very efficient and alternate option over manual process. So, this paper concludes that Online Student Concession Pass is sweet for each Student also as Railway in order that they will have all students' data who use the facility of railway.

If Mumbai University apply this over all colleges in Mumbai Then They can save Lots of Time & Paper Work.

## IX. ACKNOWLEDGEMENT

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