# COURSE REGISTRATION AND CREDIT CALCULATION SYSTEM

## A MINI PROJECT REPORT

*Submitted by*

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*in the partial fulfillment for the award of the degree*

*of*

**BACHELOR OF ENGINEERING**

**in**

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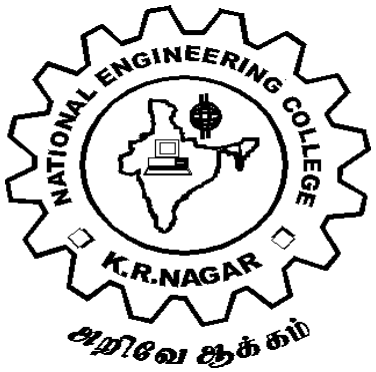


**NATIONAL ENGINEERING COLLEGE**

**(An Autonomous Institution, Affiliated to Anna University, Chennai)**

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## BONAFIDE CERTIFICATE

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## ABSTRACT

This project is about the course registration website, which helps to know about the courses the students have registered for. Students can register for the courses they want to learn for their respective semesters. Students can also register for their elective courses and non-cgpa courses. Admin can get the information about the courses registered for all semesters in an excel sheet, and they can also view the enrollment history of every student in this software. Admin can check the students' total enrollment history and non-cgpa courses. Admin can also add courses for registration with regulation, making it easier to identify the regulation of the course in enrollment history. Admin can add students along with their batch year, making it easier for admin/staff to check the student's enrollment history only for particular batch students. This will be more useful for the faculty members to calculate the no. of students registered for a specific course. They can also verify the number of particular batches of students registered for a specific course. This will make the admin easy to work on allocating course instructors for the respective courses with the help of the enrollment history of the students. Tutors can check the academic progress of their tutor-ward students. Admin can check the credits earned by each student in all eight semesters. This makes it more accessible for the faculties to verify whether the student has enrolled for the courses with sufficient credits. This software will be more efficient in the credit calculation process.

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## LIST OF ABBREVIATIONS

| ABBREVIATION | EXPANSION |
|---|---|
| PHP | Hypertext Preprocessor |
| PC | Personal Computer |
| SQL | Structured Query Language |
| HTML | Hyper Text Markup Language |
| CSS | Cascading Style Sheet |
| XML | Extensible Markup Language |
| JS | JavaScript |
| OS | Operating System |
| RDBMS | Relational Database Management System |
| CGPA | Cumulative Grade Point Average |

# CHAPTER 1

## INTRODUCTION

The online course registration system is a web-based application. Educational institutes or colleges can use it to maintain student records easily. It also provides less time for viewing, adding, editing, updating and deleting the course registered details of the students. The online course registration system will allow online submission of student course registration, student registration, extracting the records as an excel sheet, storing records, and updating student profiles. As the information needed is large, achieving this using a manual process of google forms is difficult. It can be redundant, and collecting relevant information may be tedious and time-consuming.

The Online Course Registration System consists of an enhanced Student module for Course Registration, My Profile, View enrolls history, and Change Password. This project provides facilities like online course registration, credits registered details and enrollment history of the students for reducing paperwork and automating the course enrollment process in an educational institution. Online Course Registration system is used for viewing the enrollment list of students, storing enrollment results, manage students. This Course Registration System will store all the details of the students, including their academic details like credits registered and all the information related to their course registration process.

The main objective of this project is to make students register for their respective courses and extract the enrollment history of the students in excel format to reduce the workload of the faculty members from a manual procedure.

## 1.1 System Specifications

### 1.1.1 Requirements

**WampServer**

WampServer is an application which consists of the Apache web server, MySQL database and PHP programming language. It is a windows web development environment that allows the creation of a website with an apache server, MySQL database and PHP.

**Apache**

Apache is software that is used to serve web applications. It delivers web content through the Internet. It is the most used server, one of the most popular web servers worldwide.

**MySQL in Wampserver**

MySQL is an open-source relational database management system. It is used to store information in a table in the database, and it associates with keys like primary key, foreign key etc.

**PHP in Wampserver**

PHP is known as hypertext preprocessor, a scripting language used to develop dynamic websites. It was a server-side language that could be embedded into HTML, making it easier to provide new functionality to web pages without needing to call external files for data.

**Browser**

A web browser is needed to open the website and to create a database in wamp servers such as a chrome browser or server.

## HTML

The Hyper Text Markup Language or HTML is the standard markup language for document design which will be displayed in browsers. It can be done properly by the help of Cascading Style Sheets and scripting languages like JavaScript.

## CSS

Cascading Style Sheet is a style sheet which is used for describing the presentation of a document in HTML or XML. CSS is used for the decoration purpose of the webpage we can add color and size for all the elements used in a web page design.

## PHP

PHP (Hypertext Preprocessor) is known as a general-purpose scripting language that can be used to develop dynamic and interactive websites. It was among the first server-side languages that could be embedded into HTML, making it easierto add functionality to web pages without needing to call external files for data.

## MySQL

MySQL is an open-source relational database management system. It is used to store the information in the tables inside a database and it connects with the keys like primary key, foreign key etc.

## JavaScript

JavaScript is also called as JS, is a programming language that is one of the important technologies of the World Wide Web, along with HTML and CSS. It is used to create dynamic web content to make application or browsers.

### 1.1.2 Non- functional requirements:

The non-functional requirements of the course registration system are listed below:

1. The course registration system should have a user-friendly interface which is easy to use.
2. Inputs that require authentication should be handled appropriately.
3. It should provide relief to users from the old system.
4. The course registration system should be compatible with windows, mac or Linux.

# CHAPTER 2
# LITERATURE SURVEY

Yu Peng proposed that the web course registration system is the central part of the educational administration system, which consists of registration controlling, undergraduate course registration, graduate course registration, retaking and retesting, dropping the course within the middle phase, etc. By registering the course voluntarily, the new system improved the registration mechanism, implemented course registration of standard classes for undergraduate and graduate students, and supported teaching activities across spring, summer, and fall semesters [1]. Abzetdin Adamov presented that U.M.I.S. design and development is a complex and lengthy process that involves many areas of computer engineering and science. The main emphasis has been made on database design practice which is the primary aspect of the project's success [2].

Adigun Abimbola implemented the Mobile Application-Based Course Registration Platform (M.A.B.C.R.P.) to facilitate the method of students' course registration within a University system. This was intended to function as an alternative to the web-based and online course registration system currently being used by most universities. This wants to bring course registration closer to scholars who are vastly great users of mobile devices [3]. The amount of students joining both undergraduate and graduate studies is increasing fast through most universities. Manual registration leads to crowding a vast number of students inside the registration halls. Registration employees are suffering plenty. Accessing online through the Internet becomes a prolonged and tedious process. Maged Fahmy introduced automated student course registration using computer-telephony integration [4].

V. karpagam designed this Application for an alternate process of a web-based application for an online course registration system. This Application helps us to bring the course registration system closer to scholars who are great users of mobile devices [5]. The college student course registration process involves filling out registration forms manually, getting them signed by respective subject teachers, and then getting

the documents acknowledged by the concerned Advisors, College Deans, and Accounts Officers, respectively. Finally, the registration forms are submitted to the Administrative Branch. As is evident, this process is highly laborious and time-consuming. Rattan Singh developed the Online Student Course Registration System has been developed to simplify the current manual procedure [6].

YousifAl-Bastaki described and implemented a WAP-based course registration system. The framework will support many opportunities for applying WAP-based technology to several services, such as wireless commerce, cashless payment, and location-based services [7]. Ruben Estevez presented web-based course registration systems to look for, select and register for courses. During this project, the authors assessed the usability of a web-based course registration system, proposed an improved model for such systems, and evaluated the model [8].

Course registration would be more tedious for the FCFS-based registration as it involves opting for multiple course instructors offering various courses. Parthiban K developed a Service Oriented Architecture by integrating the curriculum, Instructor management, and timetable management and delivering a highly available, reliable online course registration platform for scholars [9]. Anju Padia presented a university management registration system that empowers colleges and educators to manage regular tasks such as campaigns, student enrolment, admissions, course registration, etc. Registering for courses while taking admission to a university is the most crucial step as it lays the foundation for an entire semester. This technique can be an integrative tool for many colleges and can be modified according to a college's requirements. This technique is much quicker and more efficient [10].

Mr. Pharaoh Chaka described that web-based services offer users convenient access and, therefore, the ability to manipulate information that concerns such services. The appliance will allow students, department members, faculty members, and, consequently, the registry members to view and make changes to course registration-related issues for a specific semester. The system will be developed using a Service-Oriented Architecture (S.O.A.), which involves grouping components into web

services [11]. Richard K. Bemile presented the research and findings of a student registration system. It has been discovered that students must be physically present on their campuses to register for the semester after paying fees. With the varied alternatives in technological choices, this research sought out which option would help eliminate the current difficulties students go through to register for the semester. This paper analyzed this existing system using the waterfall model, leading to a design and development of an online registration system that does not require the physical presence of students on campus but to register remotely [12].

Rajab Philip Muchiri described that the quantity of students joining universities is increasing fast, congesting existing registration systems. Online registration with student web portals common in many learning institutions was adapted to unravel this problem. Online registration alleviated a variety of these problems. However, it is only partially eradicated the problem. Long queues and delays are still experienced during registration exercises. Accessing the web through the Internet becomes a slow and tedious process [13]. Yinh Liu proposed the Student Registration System for Universities (S.R.S.U.) is to do the statistics on the student's basic information, registration information, and payment information and provides the results of the analysis. The subject's background is analyzed in the paper first, and thus the technologies used in the development are introduced [14]. Swapnali Avhad proposed developing a college student information system to manage college management. This Application contains robust data and has a straightforward interface. The foremost objective of this Application is to reduce the paperwork and time used for manual processing. An Education system in India has become so advanced because of the development of technology. This Application will help the institute to manoeuvre forward quickly, fulfil its vision and attain its goals [15].

# CHAPTER 3

## PROPOSED METHODOLOGY

The proposed course registration system is a 3-tier web-based client/server Architecture in which the user interface, system data storage, and system data access are developed and maintained as independent modules, most often in different platforms, shown in fig 3.1.

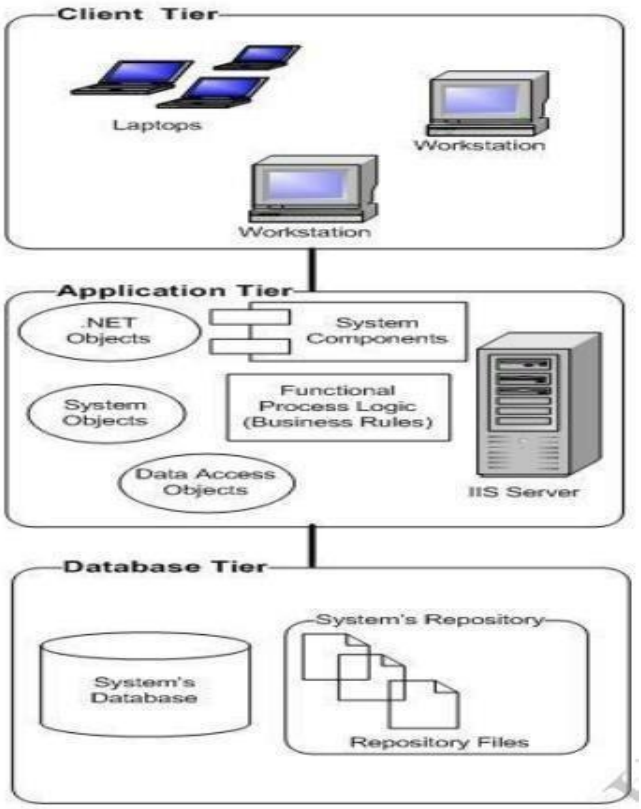



Fig 3 .1 3-tier architecture

### 3.1 Client Layer

The client must have a P.C., preferably running Windows as an operating system, with Internet Explorer, which enables users to browse the website over the Internet. The code was made using Mozilla Firefox, so it works very well. It is a web-based application; all processing is done on behalf of the users' computers on the server hosting the system. Other operating systems, such as Linux, Mac OS, etc., might be acceptable as client machines.

### 3.2 Application Layer

The application layer consists of the user interface, business rules and data access component. All accessing data code and business rules implementation are developed using PHP. Code is written in files, each containing one or more classes to handle the functionality of web forms designed using PHP.

### 3.3 Database layer

The database of the proposed system is implemented using the MySQL server. This layer provides high connectivity and availability and allows system developers to easily administer and manage their databases using its Management Studio graphical user interface. In addition to allowing developers to create their stored procedures or use built-in systems.

Using MySQL Server as a full-resolution relational database management system allows the user to create server-side cursors to work through different table records and manipulate them sequentially programmatically. During development, developers may need to process the resulting documents on the server without using another programming language, i.e. through the built-in functionality of the RDBMS. Remember to use triggers.

To perform operations on data during insertion, deletion or update. All the previously mentioned features make MySQL Server an excellent environment to host a computer's database.

### 3.4 System Architecture:

The architecture comprises various modules, as given in Fig 3.2. The three major categories in this system are admin, tutor and student. Admin's role is to create students and tutor and manage them. Management, developing courses, checking to enroll history with credit details, and reviewing student logs. The tutor's module consists of assigning students,

checking their students' enrollment history, and updating profiles. Students' modules include registering for courses, requesting to re-register, and updating their profiles. The three tiers comprise the presentation, application logic, and data layers.

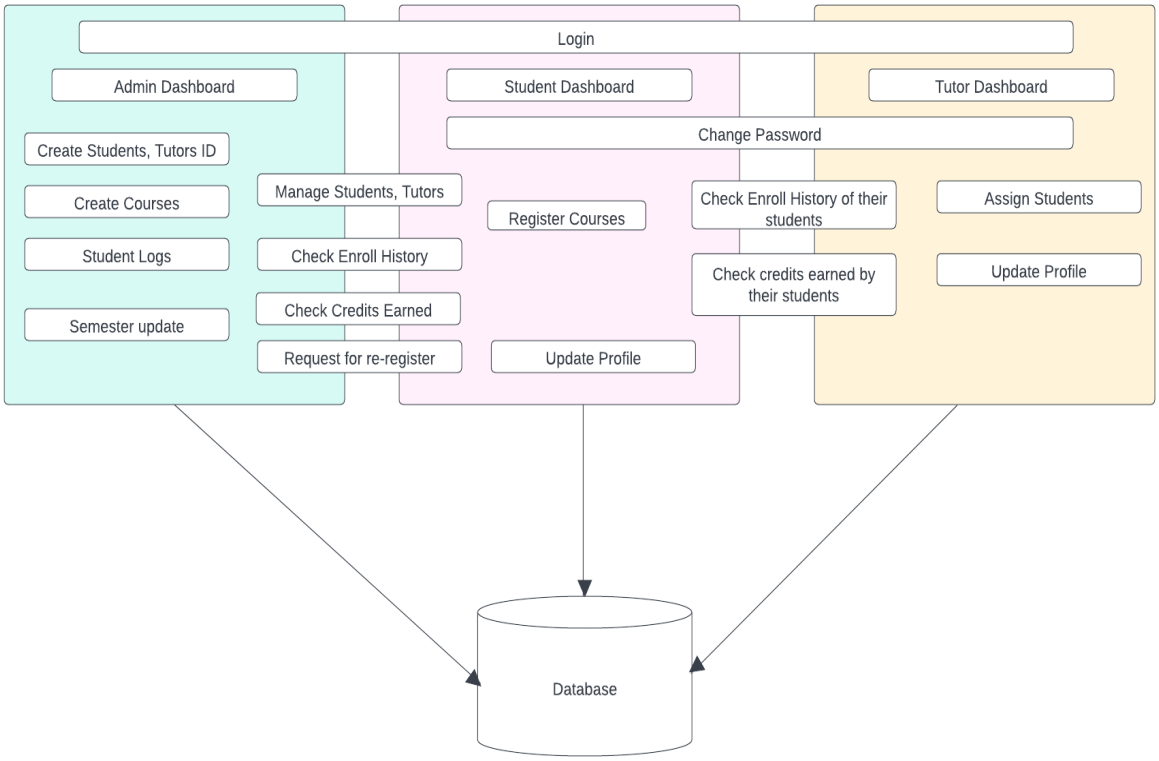



Fig 3.2 System Architecture

### 3.5 System Flow Chart:

Students can enroll for their respective courses, view their enroll history, check, update profile and change their password which is shown the below fig 3.3.

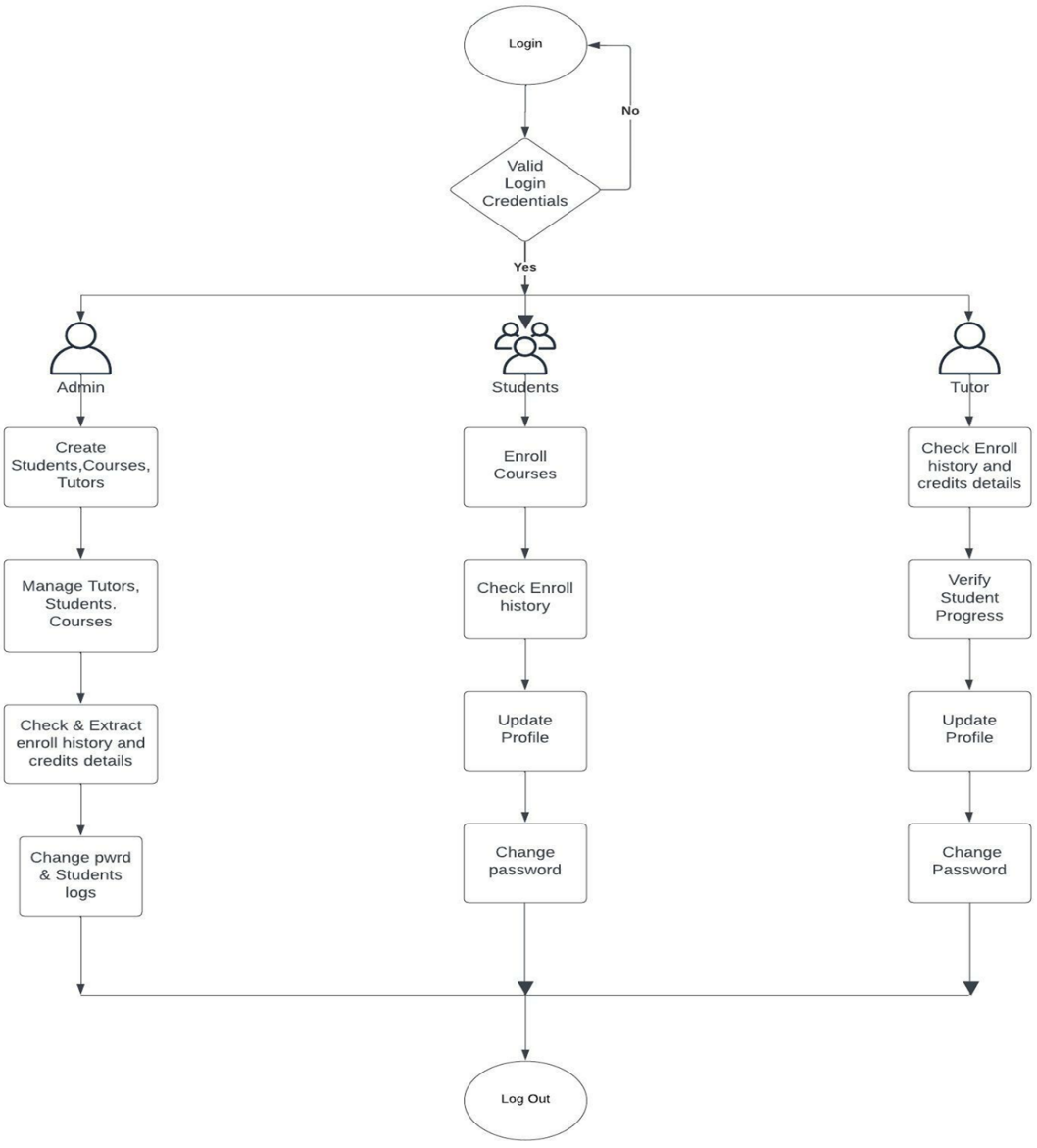



Fig 3.3 System Flow Chart

### 3.6 Inputs

The following are needed as input within the system

1. Student Registration Number and Password.
2. Student details including name, registration number, year of study and all otherstudent details required for registration.
3. Admin login consists of admin username and password.
4. Tutor login consists of tutor username and password.

### 3.7 Processes

The system will carry out the following processes:

- Storing student details, Course details, semester details and department details in database.
- Retrieves enrollment history and credit details from the database.

### 3.8 Output

1. Display relevant details to the courses registered by the students.
2. Extracting the enroll history with credit details of the courses registered by the students in anexcel format.

### 3.9 Modules

Following are the main module of online course registration system.

**Student module**

Student Module consists of a course registration page, my profile page, a change password page and checks to enroll history page. This module help student with course registration.

**Admin Module**

This module consists of add semester page, add course page, add department page, add semester page, add student page, manage student page, change Password, page for admin and enroll history verification page. This

module will be helpful for the admin to check the enrollment history of the students.

**Tutor Module**

The tutors can assign their tutor ward students. They can also check enrollment history with the credit details of their ward students.

### 3.10 Student module

Student Module consists of course registration page, my profile page, changepassword page and check enroll history page. This module help student for course registration.

**Course register page**

All students can register their respective courses for which they are going to learn in the upcoming semesters. They can select and register the courses available in that page. It will be displayed according to semester the students currently studying.

**My profile page**

In my profile page, every student can be able to update their profile. In this page student's details are displayed such as student name, student register number and student photo If there is any changes in future they can update their student name and student photo.

**Change password page**

In this change password page, student can be able to change their password. They can change it whenever they want.

**Check enroll history**

In this enroll history page, students can check their previously enrolled courses list. This page shows the enrolled course details of the student such as the course name, credit value of the courses, department to which the course belong to, semester name to which the course to enrolled and enrolment date of the course which is the date and time at which the course is enrolled by the student.

### 3.11 Admin Module

This module consists of add semester page, add course page, add

department page, add semester page, add student page, manage student page, change password page for admin and enroll history verification page.

**Change password page**

In this change password page, admin can be able to change their password. They can change it whenever they want.

**Add semester page**

In this semester page, admin can add semesters. There will be an action column in the displayed table which has a delete button with the semester details. Admin can use that button to deletea semester which is created already.

**Add department page**

In this department page, admin can add departments. There will be a text field to add department. There will be an action column in the displayed table which has a delete button with the department details. Admin can use that button to delete a department which is created already.

**Add courses page**

In this add course page, admin can add the courses for which the students have to register. Here admin can enter all the courses details along with seat limit.

**Student registration page**

This page is used to add new students into the database which is used to create a new student login.

**Tutor registration page**

This page is used to add new students into the database which is used to create a new tutor login.

**Manage students page**

This page is used to manage the student details to update and delete it.

Delete button is used to delete the student id from the database. Reset password button is used to reset the password of the student if the student forgot his/her current password.

**Enroll History and credits page**

This page is used to check the enroll history of the students. Here the admin can view the enrollment history of the student along with the credits details.

**User log page**

In this page the student login related information is displayed. This page consists of a table of student login details such as student register number, login time and log out time. These details will be useful for admin to check who are all using this platform and to know who have completed the course registration work on the given time period.

### 3.12 Tutor Module

**Enroll History and Credits Page**

This page is used to check the enroll history of the students. Here the tutor can view the enrollment history of their tutor ward students along with the credits details.

**Change password page**

In this change password page, tutor can be able to change their password. They can change it whenever they want.

**My Profile page**

In my profile page, every tutor can be able to update their profile. In this page tutor's details are displayed such as tutor name, tutor register number and tutor photo. If there is any changes in future they can update their tutor name and tutor photo.

**Assign Students**

In this page, tutors can assign the students for them who are belonging to his/her tutor ward. They can enter the required student details which are asked in the assign students page and they can assign the students belong to his/her tutor ward.

# CHAPTER 4

# RESULT AND ANALYSIS

## 4.1 EXPERIMENTAL SETUP

### Enroll history page

This page is used to check the enroll history of the students. This page consists of some buttons which are used to know the enroll history and credits details of the students which is shown in the fig 4.1 and the verified enroll history of a particular studentis shown in fig 4.2.

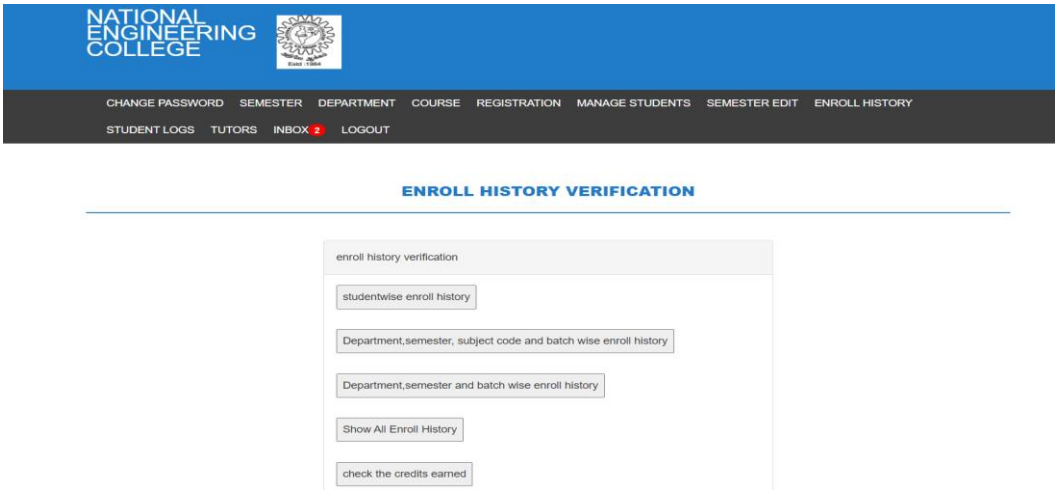
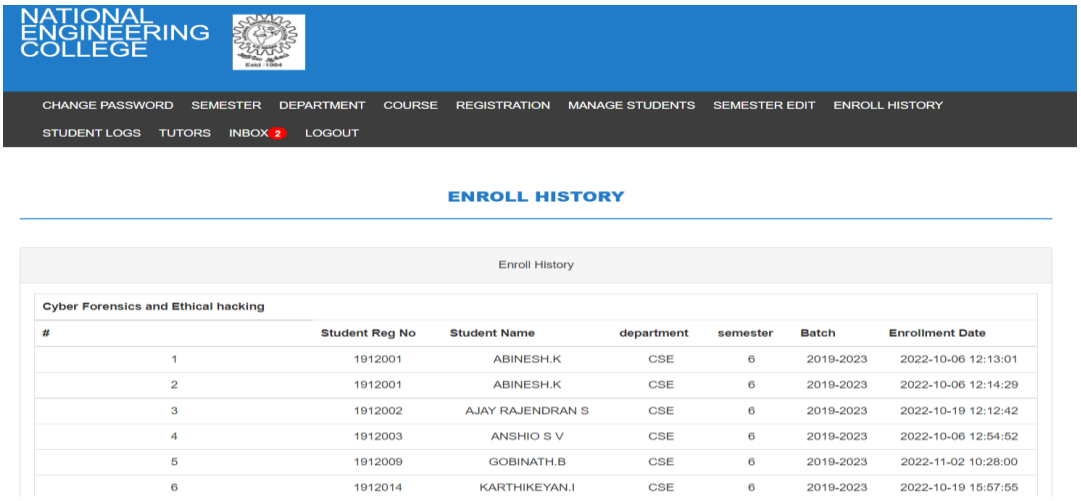



Fig 4.1 enroll history verification page




| # | Student Reg No | Student Name | department | semester | Batch | Enrollment Date |
|---|---|---|---|---|---|---|
| 1 | 1912001 | ABINESH.K | CSE | 6 | 2019-2023 | 2022-10-06 12:13:01 |
| 2 | 1912001 | ABINESH.K | CSE | 6 | 2019-2023 | 2022-10-06 12:14:29 |
| 3 | 1912002 | AJAY RAJENDRAN S | CSE | 6 | 2019-2023 | 2022-10-19 12:12:42 |
| 4 | 1912003 | ANSHIO S V | CSE | 6 | 2019-2023 | 2022-10-06 12:54:52 |
| 5 | 1912009 | GOBINATH.B | CSE | 6 | 2019-2023 | 2022-11-02 10:28:00 |
| 6 | 1912014 | KARTHIKEYAN.I | CSE | 6 | 2019-2023 | 2022-10-19 15:57:55 |

Fig 4.2 after verification enroll history is displayed

## Student registration page

This page is used to add new students into the database which is used to create a new student login which is shown in fig 4.3.

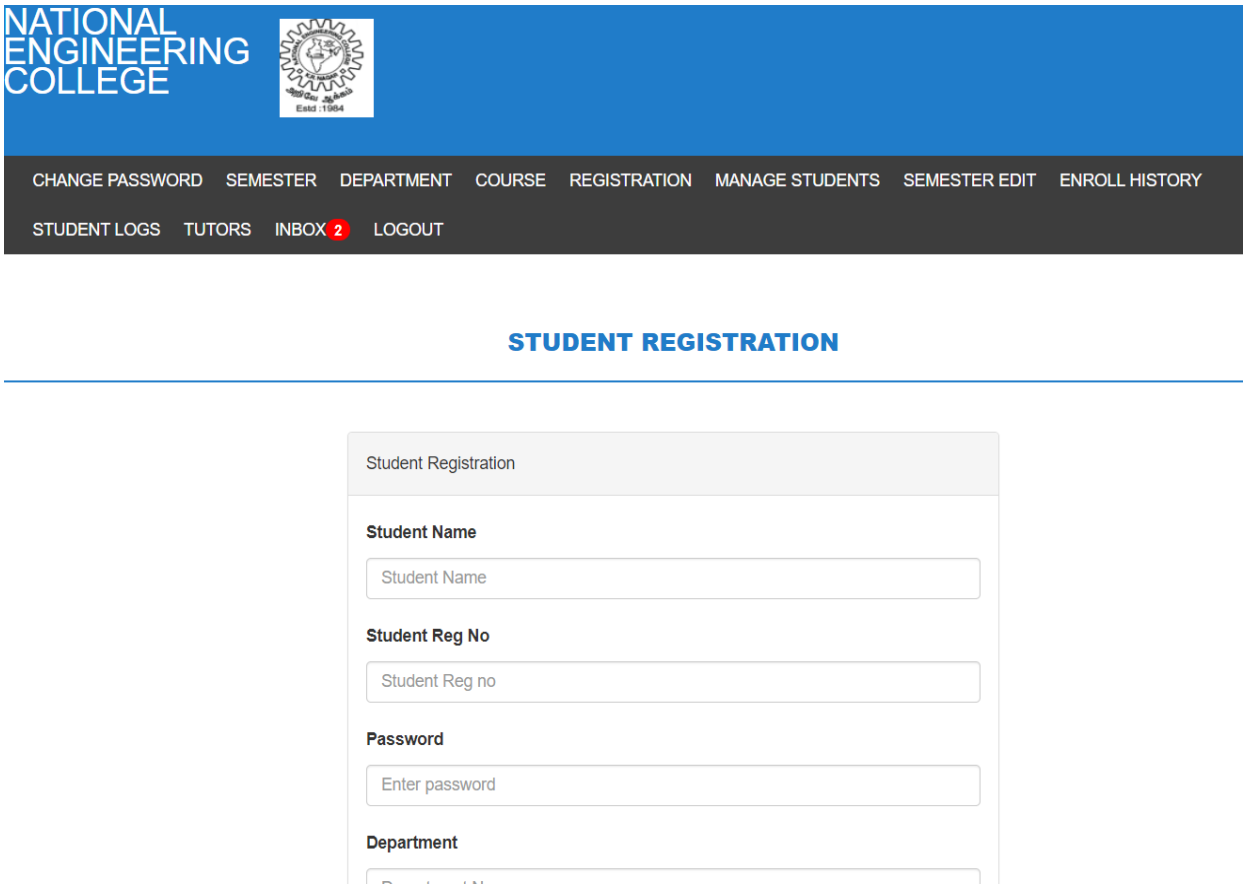



Fig 4.3 student registration page

## Add course page

In this add course page, admin can add the courses for which the students have to register. This consists of all the courses details to be needed to store it in the database which is shown in fig 4.4.

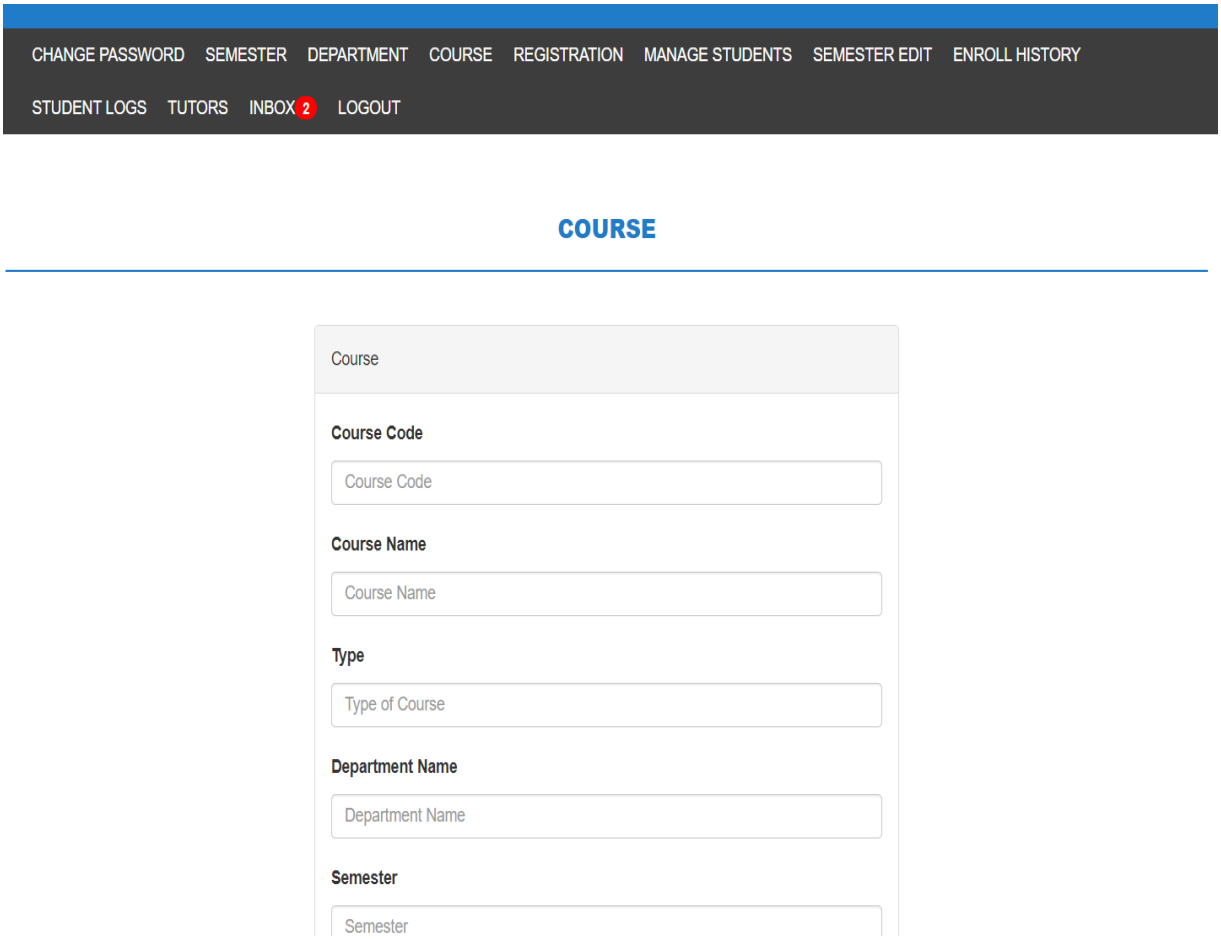



Fig 4.4 add course page

## Change password page

In this change password page, admin can be able to change their password. There will be three text fields which shown in fig 4.5.

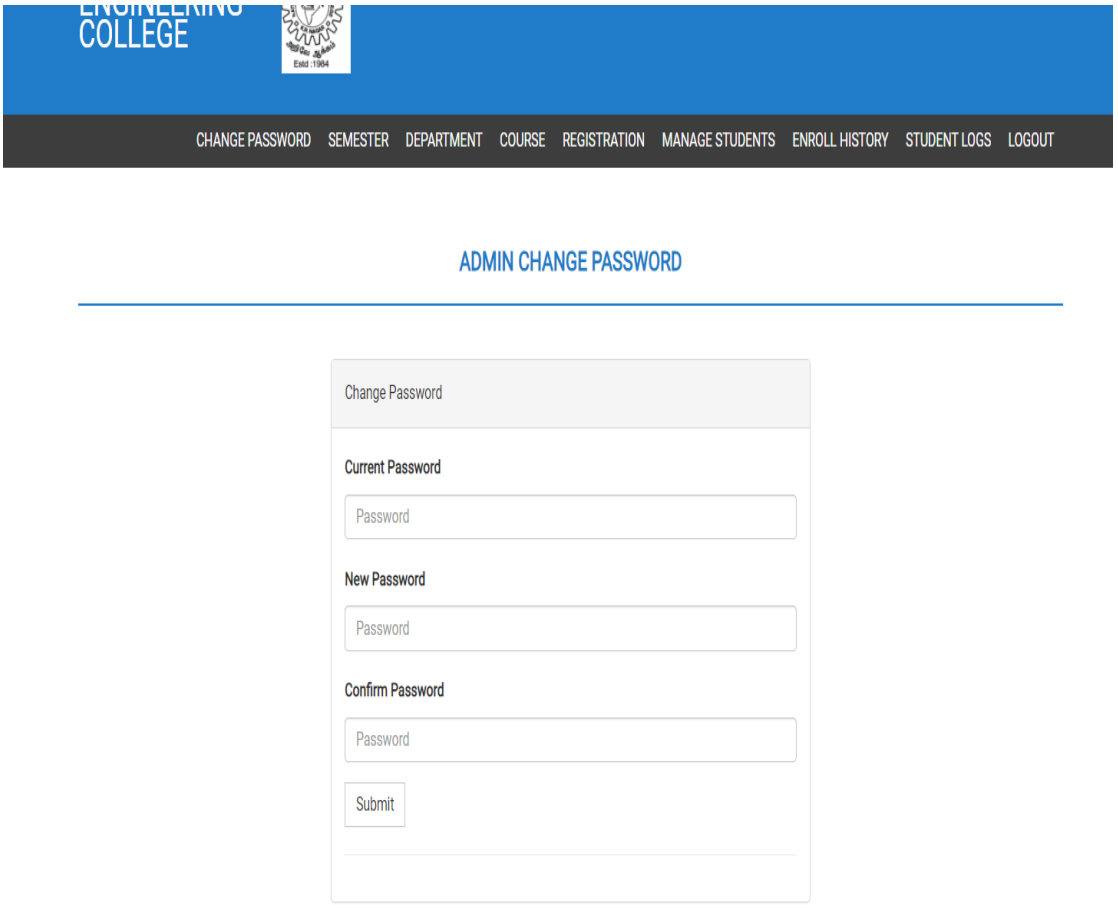



Fig 4.5 change password page

### Add semester page

In this semester page, admin can add semesters. There will be a text field to add semester shown in fig 4.6.

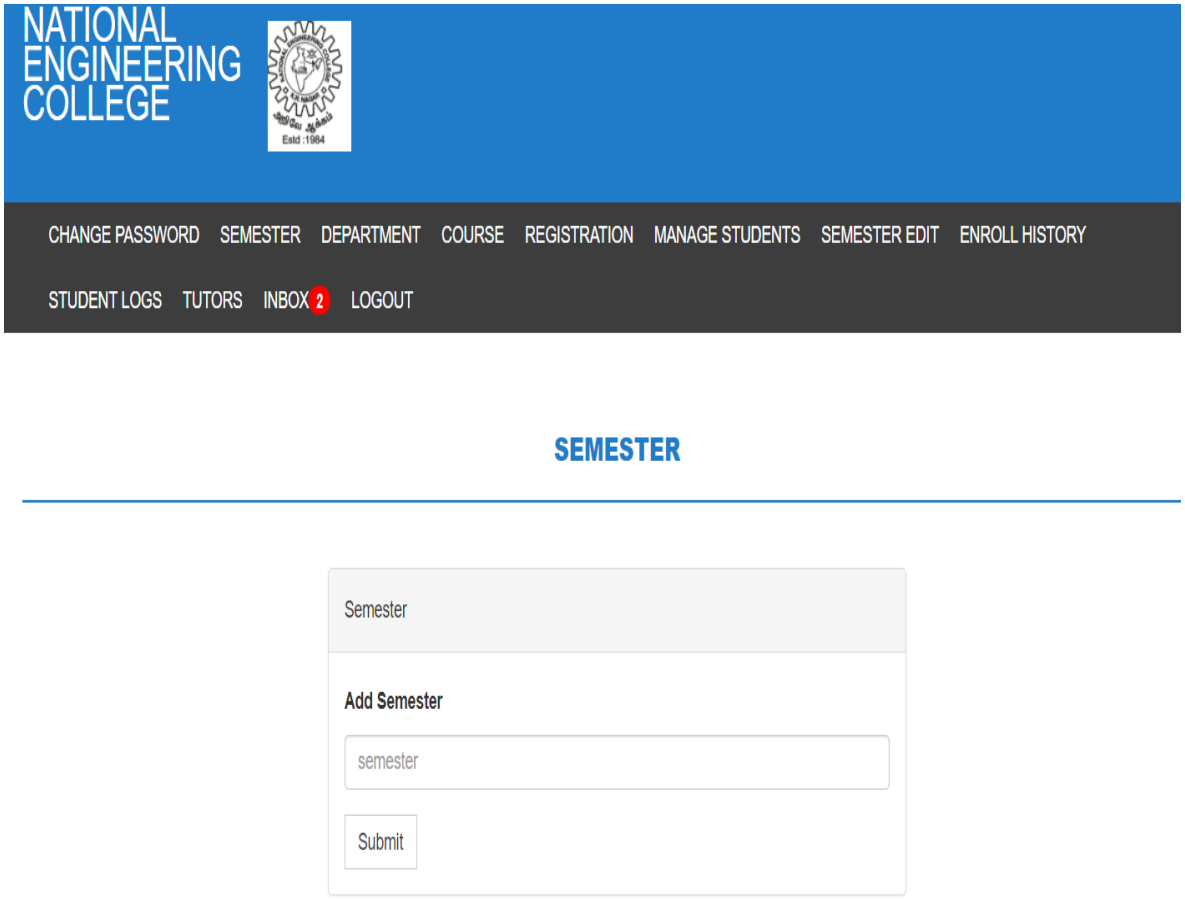



Fig 4.6 add semester page

## Add department page

In this department page, admin can add departments. There will be a text field to add department is shown fig 4.7.

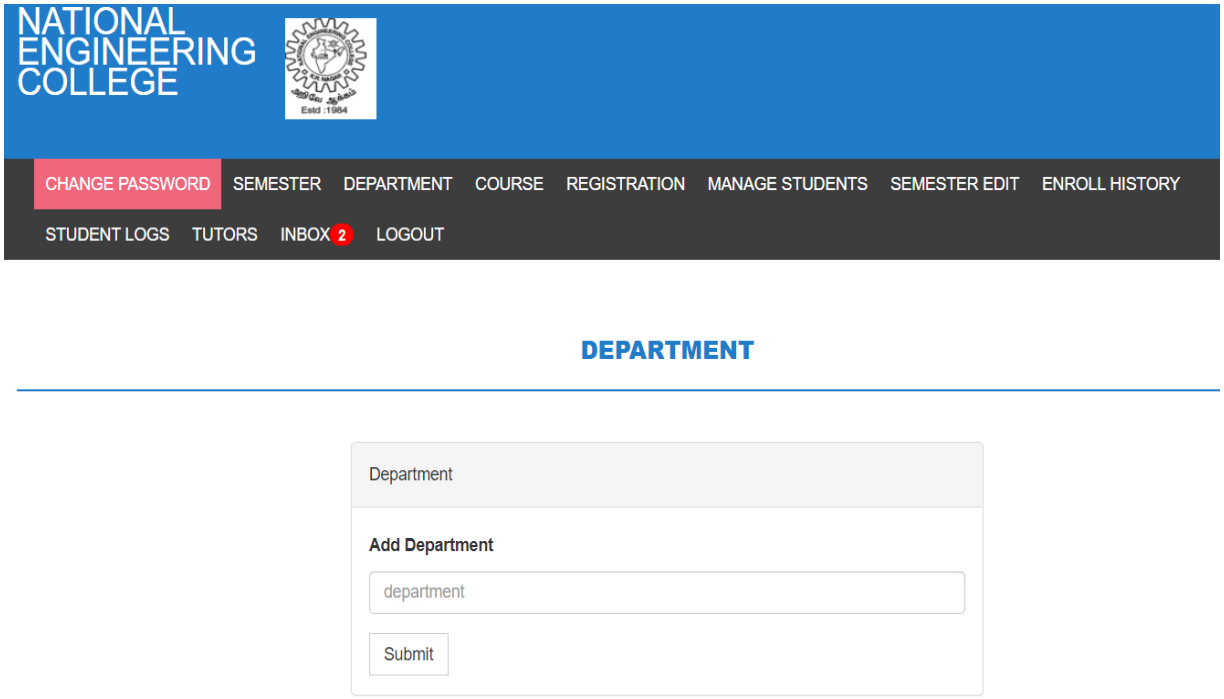



Fig 4.7 add department page

## Manage students page

This page is used to manage the student details to update and delete it. This page has a table which consists of student register number, student name, registration date in which a particular student id is created and an action column is shown in fig 4.8.

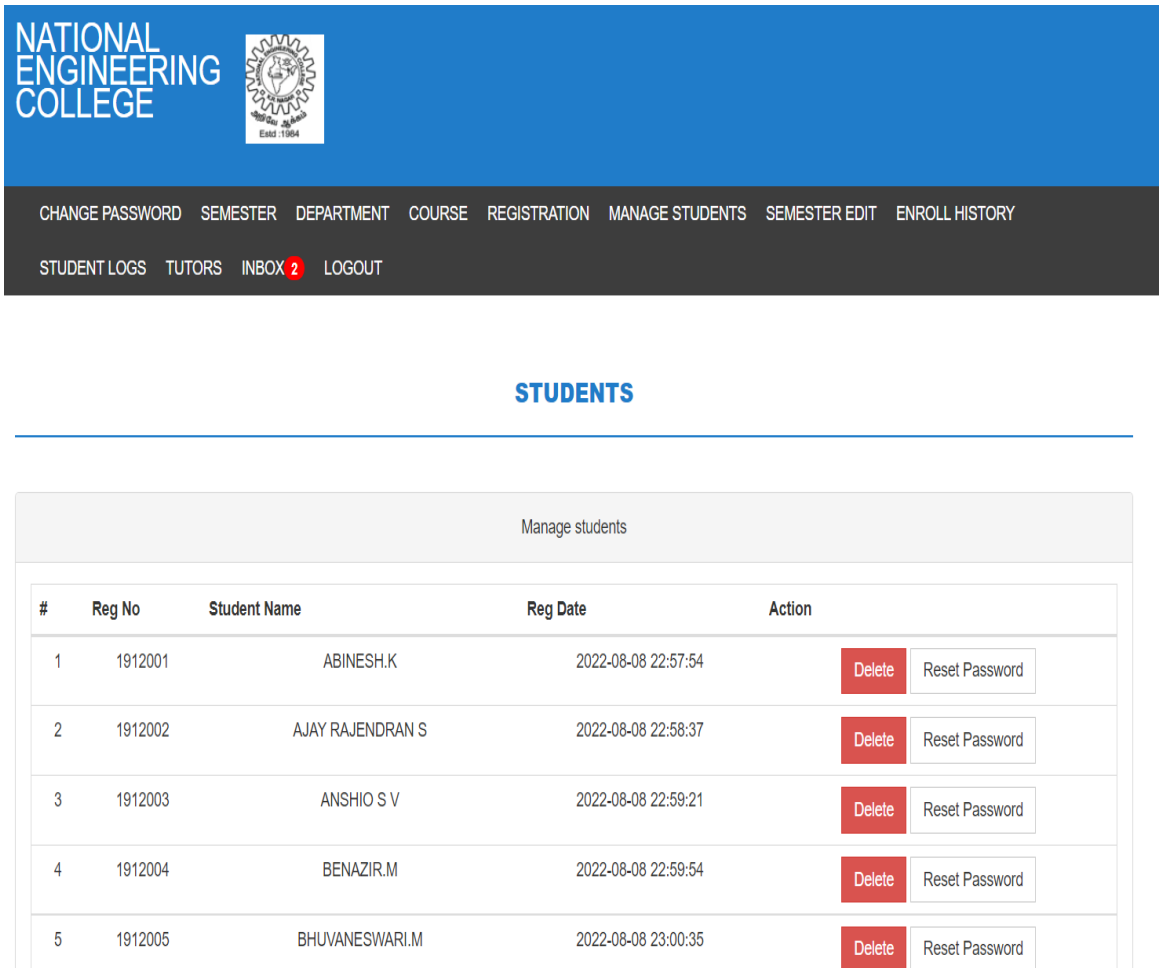
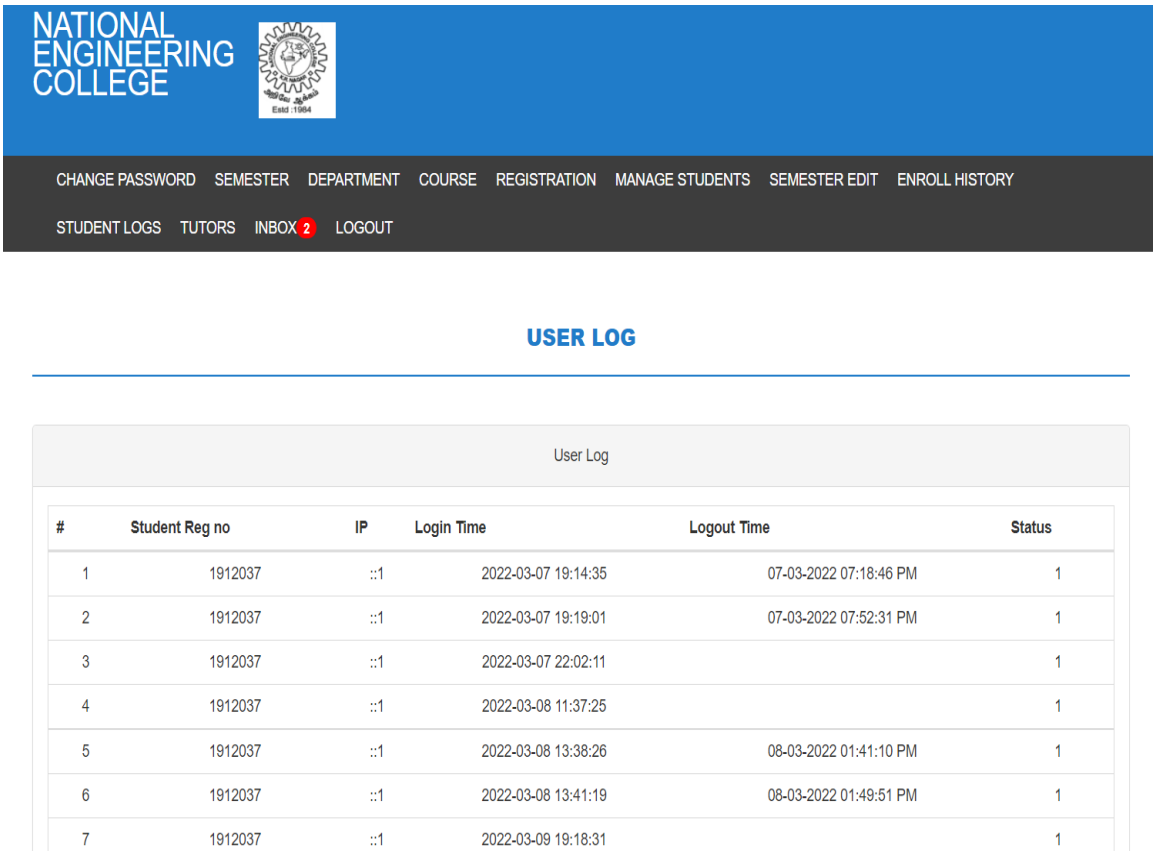



Fig 4.8 manage students page

## User log page

In this page the student login related information is displayed. This page consists of a table of student login details such as student register number, login time and log out time is shown in fig 4.9.




| # | Student Reg no | IP | Login Time | Logout Time | Status |
|---|---|---|---|---|---|
| 1 | 1912037 | ::1 | 2022-03-07 19:14:35 | 07-03-2022 07:18:46 PM | 1 |
| 2 | 1912037 | ::1 | 2022-03-07 19:19:01 | 07-03-2022 07:52:31 PM | 1 |
| 3 | 1912037 | ::1 | 2022-03-07 22:02:11 | | 1 |
| 4 | 1912037 | ::1 | 2022-03-08 11:37:25 | | 1 |
| 5 | 1912037 | ::1 | 2022-03-08 13:38:26 | 08-03-2022 01:41:10 PM | 1 |
| 6 | 1912037 | ::1 | 2022-03-08 13:41:19 | 08-03-2022 01:49:51 PM | 1 |
| 7 | 1912037 | ::1 | 2022-03-09 19:18:31 | | 1 |

Fig 4.9 student login info page

## Inbox Page

This page consists of the requests by the students for re-registering the courses. It is shown in fig 4.10

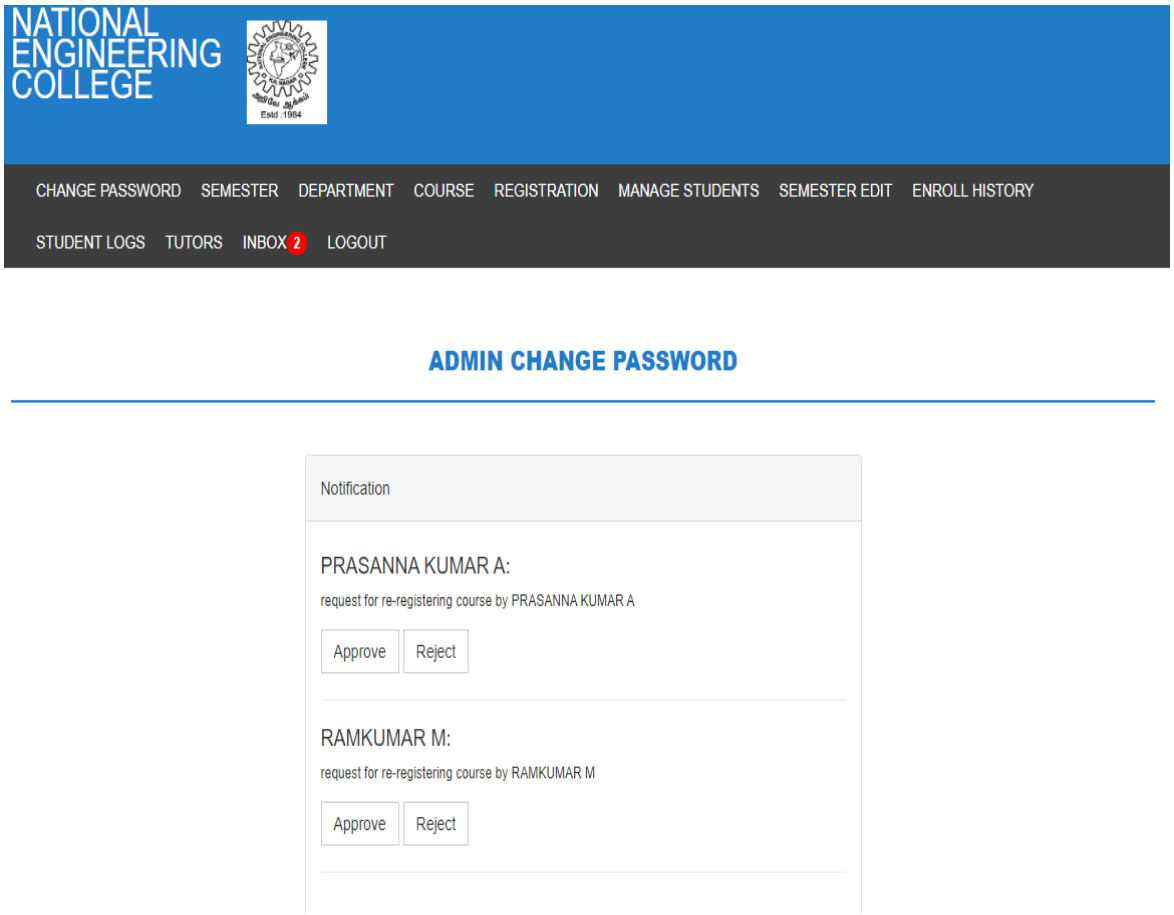



Fig 4.10 Inbox page

## Course register page

All students can register their respective courses for which they are going to learn in the upcoming semesters is shown in fig 4.11.

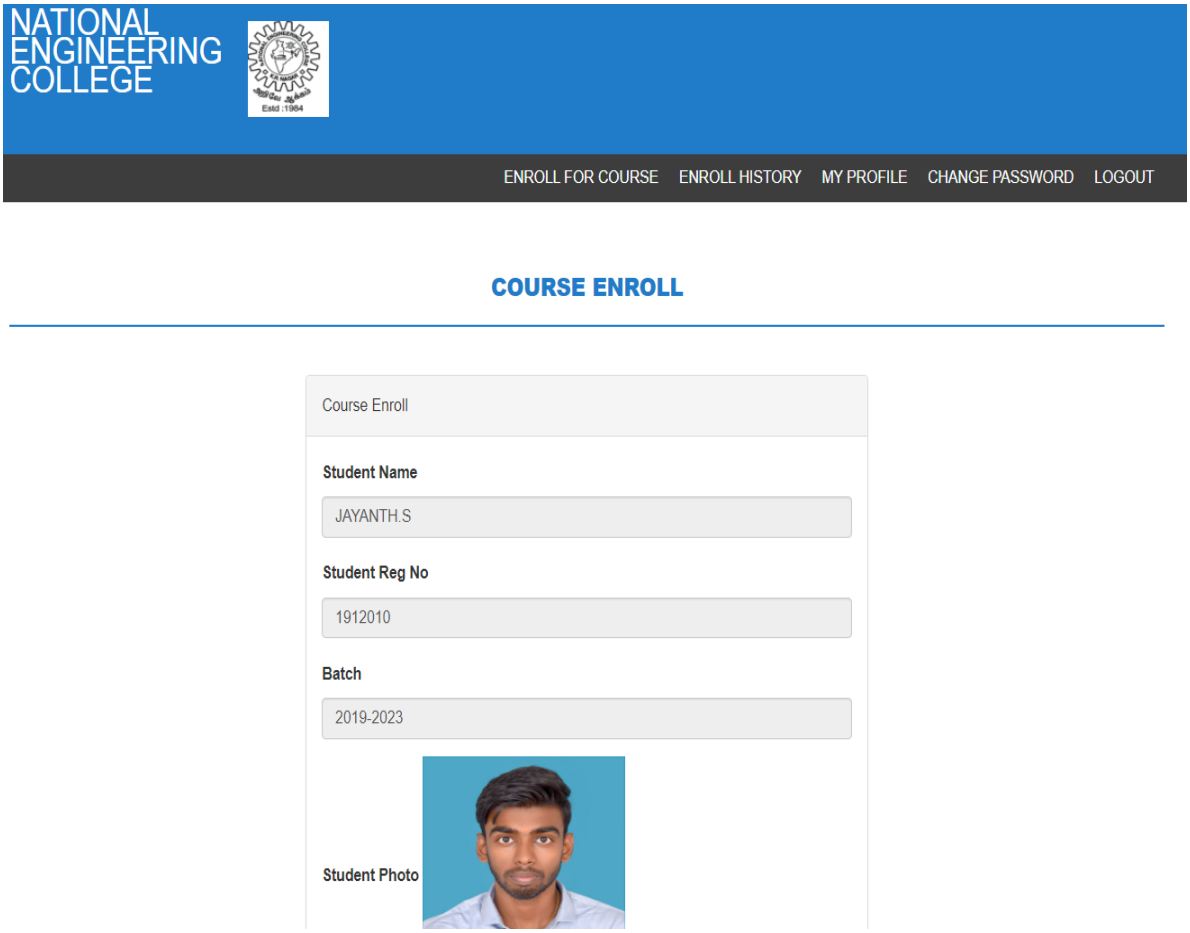



Fig 4.11 Course registration page

## My profile page

In my profile page, every student can be able to update their profile. In this page student's details are displayed such as student name, student register number and student photo which is shown in fig 4.12.

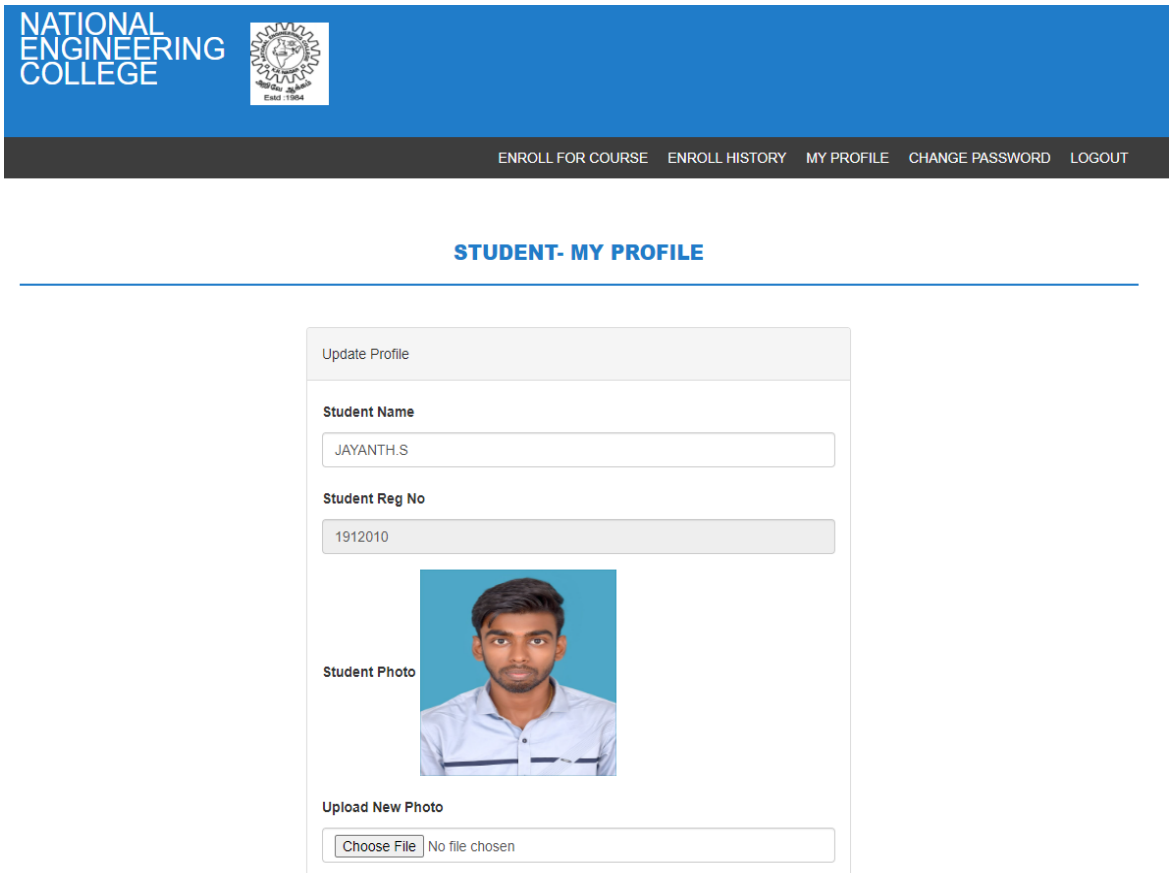



Fig 4.12 My profile Page

The results obtained from the survey were as follows for the questionnaires are shown in fig 4.13 and fig 4.14.

1.

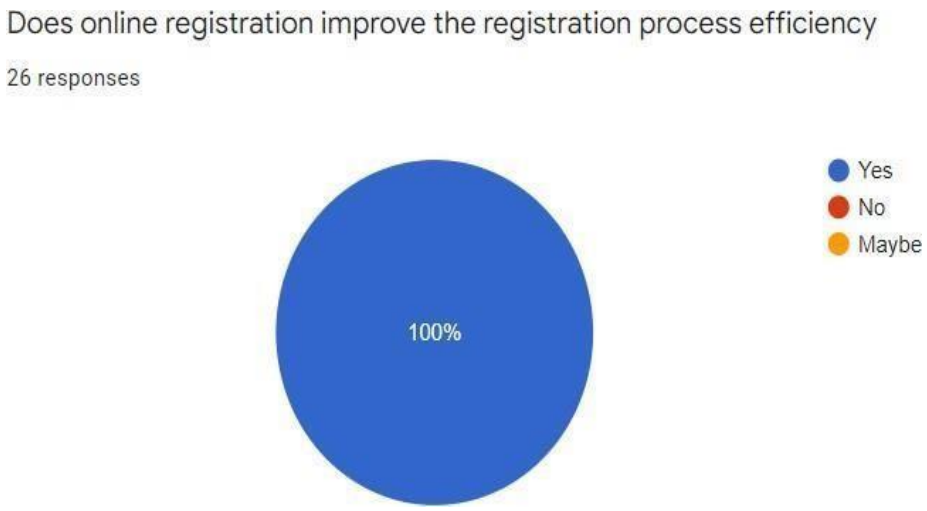



Fig 4.13 survey result that shows 100% of the users agreed.

2.


Fig 4.14 survey result that shows 65% of users need website for course registration

# CHAPTER 5

# CONCLUSION AND FUTURE WORK

## 5.1 Conclusion

The Online Course Registration and Credit Calculation System will be improving the overall performance of the university as it will provide the enrollment details of the students with their academic details. Online course registration not only helps students to reduce their time but also helps university authorities to improve their operations based on up-to-date records that can generate customized reports. This will bring a positive change in the organization and save a lot of resources.

## 5.2 Future work

Our future works in this online course registration system may be provide an option to import excel sheet for student registration. We can add a module for open electives viewing options for admin and students. Create an option for admin to view the overall academic progress of a student.

# EXPECTED OUTCOME PROOF

**Date:** 2022-11-24 21:33:50
**To:** "RAM PRAVEEN" 1912037@nec.edu.in
**From:** "JCST" jcst2018@rsu.ac.th
**Subject:** Submission Confirmation for COURSE REGISTRATION AND CREDIT CALCULATION SYSTEM

Dear PRAVEEN,

Your submission entitled "COURSE REGISTRATION AND CREDIT CALCULATION SYSTEM" has been received by journal Journal of Current Science and Technology

You will be able to check on the progress of your paper by logging on to Editorial Manager as an author. The URL is https://www.editorialmanager.com/jcsat/.

Your manuscript will be given a reference number once an Editor has been assigned.

Thank you for submitting your work to this journal.

Kind regards,

Journal of Current Science and Technology

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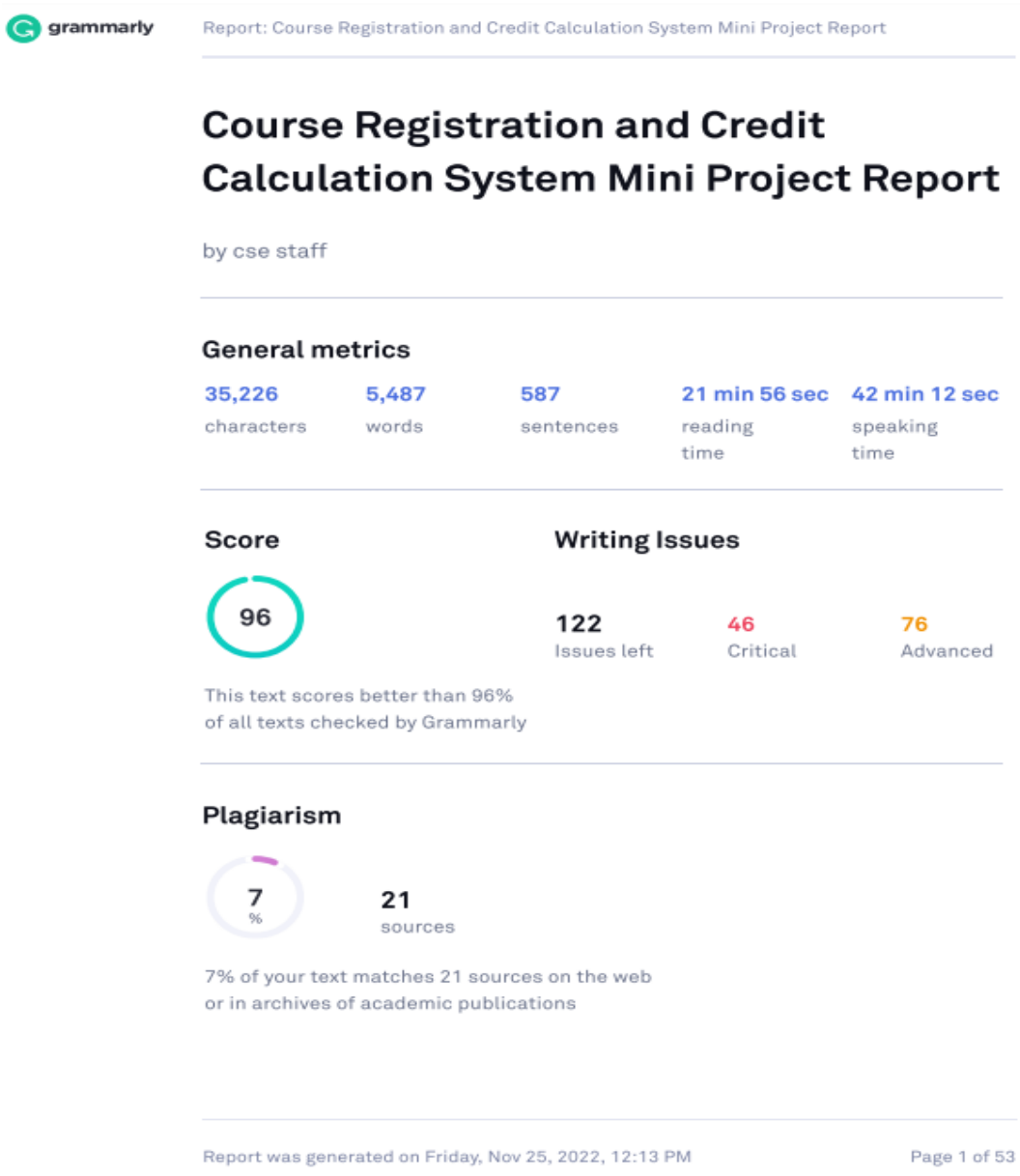
In compliance with data protection regulations, you may request that we remove your personal registration details at any time. (Use the following URL: https://www.editorialmanager.com/jcsat/login.asp?a=r). Please contact the publication office if you have any questions.

# APPENDICES

## GRAMMARLY CHECK REPORT



grammarly

Report: Course Registration and Credit Calculation System Mini Project Report

# Course Registration and Credit Calculation System Mini Project Report

by cse staff

### General metrics

| 35,226 | 5,487 | 587 | 21 min 56 sec | 42 min 12 sec |
|---|---|---|---|---|
| characters | words | sentences | reading time | speaking time |

### Score

96

This text scores better than 96% of all texts checked by Grammarly

### Writing Issues

| 122 | 46 | 76 |
|---|---|---|
| Issues left | Critical | Advanced |

### Plagiarism

7 %

21 sources

7% of your text matches 21 sources on the web or in archives of academic publications

Report was generated on Friday, Nov 25, 2022, 12:13 PM

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