

JNTUACEA CSE DEPARTMENT WEB PORTAL

A PROJECT REPORT

Submitted

*in the partial fulfilment of the requirements for
the award of the degree of*

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE AND ENGINEERING

By

K. JAYA KRISHNA REDDY (18001A0538)

V. GOVARDHAN (18001A0517)

M. ESWAR (19005A0518)

Under the guidance of

Dr. C. SHOBA BINDU M.Tech., Ph.D.

Professor, Department of CSE

JNTUACEA



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
COLLEGE OF ENGINEERING (*Autonomous*)**

ANANTHAPURAMU - 515002

ANDHRA PRADESH

2022

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
COLLEGE OF ENGINEERING (*AUTONOMOUS*)
ANANTHAPURAMU – 515002**

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



CERTIFICATE

This is to certify that the project entitled “**JNTUACEA CSE DEPARTMENT WEB PORTAL**” is a bonafide work of **K. JAYA KRISHNA REDDY**, bearing Admission No: **18001A0538**, **V. GOVARDHAN**, bearing Admission No: **18001A0517** and **M. ESWAR**, bearing Admission No: **19005A0518**, submitted to the faculty of Computer Science and Engineering, in partial fulfilment of the requirements for the award of degree of **BACHELOR OF TECHNOLOGY in COMPUTER SCIENCE AND ENGINEERING** from Jawaharlal Nehru Technology University Anantapur, College of Engineering (*Autonomous*) Ananthapuramu.

SIGNATURE OF GUIDE

Dr. C. SHOBA BINDU M.Tech., Ph.D.

Professor

Department of CSE

JNTUA College of Engineering

ANANTHAPURAMU-515002

SIGNATURE OF H.O.D

Dr. K. MADHAVI M.Tech., Ph.D.,

Associate Professor & H.O.D

Department of CSE

JNTUA College of Engineering

ANANTHAPURAMU-515002

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With Gratitude,

K. JAYA KRISHNA REDDY (18001A0538)

V. GOVARDHAN (18001A0517)

M. ESWAR (19005A0518)

ABSTRACT

The growing significance of websites for various organizations is well known. In recognizing the significance of a website for our Computer Science and Engineering department which comprises of all the required information about the department. The goal of this application is to design, publish and maintain a website for our department which consists of all the information regarding the department like infrastructure, department facilities, courses and programmes offered, etc.,

JNTUACEA Computer Science and Engineering Department Web Portal is a web enabled software designed to manage the entire operations of a department. It is simple yet powerful one joint integrated platform that connects all the various programmes, courses, specializations, students, faculty, administration and many more modules in a department. The process of notice boards, important notification about academics has been carried out manually. This process is not only time consuming but also inefficient.

Today, all the work of the students like the academic time tables, course syllabus, examination schedule, seating arrangement during examinations, students choosing the elective courses and student feedbacks are all done manually by ink and paper, which is very slow and consuming much efforts and it also takes much time for any minute information to get circulated among the students. So, it is required to design a computerized system not only to speed up but also to make it feasible for the faculty and the students. This Department Website acts as a smooth and better bridge between the students and the faculty.

The modules present in this system are home page which includes a slideshow of different activities performed in the department during the various occasions and any announcements that are passed by the HOD. In addition to that academics modules which consists of the various programmes, courses, time tables, regulations and syllabus of all the academic years present in the department. People module comprises of the faculty along with their designation, experience and email address and it also consists of student's information.

At present in this covid-19 pandemic time everything is going in an online way so to have a healthy communication between the students, faculty and the department deploying a web application for the department is a necessary requirement.

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CHAPTER 1

INTRODUCTION

1.1 Motivation

JNTUACEA Computer Science and Engineering Department Web Portal is a web enabled software designed to manage the entire operations of a department. Department Web Portal is a simple yet powerful one joint integrated platform that connects all the various programmes, courses, specializations, students, faculty, administration and many more modules in a department. The process of notice boards, important notification about academics has been carried out manually. This process is not only time consuming but also inefficient.

The growing significance of websites for various organizations is well known. In recognizing that we decided to develop a website for our JNTUACEA CSE department which compromises of all the required information about the department. The goal of this application is to design, publish and maintain a website for our department which consists of all the information regarding the department like infrastructure, department facilities, courses and programmes offered, etc.

At present and that to in this covid pandemic time everything is going in an online way so to have a healthy communication between the students, faculty and the department deploying a web application for the department is a necessary requirement. For students to explore about the department, faculty research work, their publications etc. This project is a great opportunity to provide a web portal for our department.

1.2 Problem Definition

Nowadays passing information from Department to Students has become a major problem due to the pandemic. The problem here is not having a bridge for communication between Faculty and Students. The proposed system is going to solve the problem by making a web portal that acts as a bridge of communication between students and Faculty.

1.3 Objective of the Project

- To maintain a central base of information.
- To deliver all the information about student profile to be accessible by faculties.
- To display syllabus of various batches of CS Department.
- To enable Students to view the profiles of any of the faculties and get to know about their research works, publications etc.
- To provide access to Students on GATE materials and enable them to communicate with teachers through provided email addresses.

1.4 Scope of the Project

The Department Website can be accessed by anyone who wishes to know about the department. They can access the website through the college website. The faculties can login through the website and can edit their profiles (like add a new research paper that they published, add an award in their profile etc.). The admin can login through the website and edit the details of any faculty and also he can add new faculty.

1.5 Existing System

At present all the work regarding the department is done manually which is slow and takes much time to circulate among students and faculty members in a department. It is also difficult to get information regarding ongoing activities in the department.

1.6 Proposed System

The proposed system is to make an online web portal for Computer Science Department, so that everyone can get information about department, students can easily communicate with teachers from anywhere. Teachers can easily communicate with the parents and can keep records of every student easily and efficiently. The proposed system could be accessed from any corner of the world on net.

Chapter- II

Software Requirement Specification

2.1 Introduction

The software requirements specification is produced at the culmination of the analysis task. The function and performance allocated to software as part of system engineering are refined by establishing a complete information description, a detailed functional and behavioural description, an indication of performance requirements and design constraints, appropriate validation criteria, and other data pertinent to requirements.

Software Requirement specification (SRS) is the starting point of the software development activity. It is a complete description of the behaviour of a system which is to be developed. The SRS document enlists all necessary requirements for project development. It minimizes the time and effort required by developers to achieve desired goals also minimizes the development cost.

2.2 User Requirements

There are two users for this system, student and Faculty.

Requirements for Students are:

A student can browse through the website with good Internet Connectivity. The Department Website is a responsive webpage so the student can access it even through mobile phones in a smooth manner.

Requirements for Faculty are:

A Faculty can login by using an email address. Admin can add anew Faculty member. For registration, besides email address and password, a teacher needs to provide their skills and additional details in order to create their content. Good internet connectivity and system are needed.

2.3 Functional Requirements

A Functional Requirement is a description of the service that the software must offer. It describes a software system or its component. A function is nothing but inputs to the software system, its behaviour, and outputs.

Functional Requirements of our proposed system includes:

1. Adding Faculty

Admin has the permissions to add a new Faculty member. For adding a Faculty member the admin requires information about the profile of a Faculty member.

2. Editing Faculty Details

Faculty Details can be edited in two ways. Admin can edit the details of a faculty. The other way is the faculty can login with their respective emails and edit their respective details.

3. Adding Student Details

Admin has the permissions to add a new Student. For adding a student details the admin requires information about the profile of a student.

4. Edit Student Details

The Student Details can only be edited by the admin. Admin has all the permissions to edit the details of a student like admission number, email etc.

5. Add an Announcement

The admin has the permissions to add a new announcement in the dashboard of the website. The announcements help students to get to know about events in Department.

6. Delete an Announcement

The admin has the permissions to delete an outdated announcement that no longer is useful for students.

2.4 Non-Functional requirements

A non-functional requirement is a specification that describes the systems Operational capabilities and constraints that enhance its functionality.

Non-Functional Requirements of our proposed system includes:

1. Reliability

Reliability shows how long the system can work without any technical issues leading to the failure of the operation. Our system includes users engaged.

2. Security

Our system has its security by not revealing the details of Faculty Credentials. Illegal access to other information is prevented.

3. User-Friendly Interface

Buttons, icons, search bars everything has to be functional, easy to navigate, and simple to use for an average learner.

2.5 Software Requirements

- Operating System : Windows 7/8/10, MAC, Android etc.
- Database : MySQL
- Programming Languages : HTML, CSS, JavaScript, PHP
- Tools : PHP Storm, VS-Code, Chrome

2.6 Hardware Requirements

- RAM size : 4GB
- Hard disk capacity : 1GB

Chapter- III

Design

3.1 Introduction

The project design is the central component in the project life cycle and its preparation is a complex task. This phase focuses on the detailed implementation of web application design. The Department website is to make an online web portal for Computer Science Department, so that everyone can get information about department, students can easily communicate with teachers from anywhere. In system design, two phases are important one is logical and physical phase.

During logical design phase the analyst describes inputs (sources), outputs (destinations), databases (data stores) and procedures (data flows) all in a format that meet the user requirements. The analyst also specifies the user needs and at a level that virtually determines the information flow into and out of the system and the data resources. Here the logical design is done through activity diagrams and sequence diagrams.

The physical design is followed by coding. Physical design produces the working system by defining the design specifications. The programmers write the necessary programs that accept input from the user, perform necessary processing on accepted data through call and display it on screen

3.2 UML Diagrams

Unified Modelling Language (UML) is a general-purpose modelling language. It describes the boundary, structure, and the behaviour of the system and the objects within it. UML is not a programming language but there are tools that can be used to generate code in various languages using UML diagrams. UML has a direct relation with object-oriented analysis and design.

It is a standard language for specifying, visualization, constructing and documenting the artefacts of software system, as well as for business modelling and other non-software systems. It represents the collection of best engineering practices that have proven successful in the modelling of large and complex systems. It uses mostly graphical notations to express the design of software projects.

3.2.1 Use case Diagrams

A **Use Case diagram** is a behaviour diagram in UML. Use case diagrams model the functionality of a system using actors and use cases. Use cases are a set of actions, services and functions that the system needs to perform. Use case diagrams specify how the system interacts with actors without worrying about the details of how the functionality is implemented.

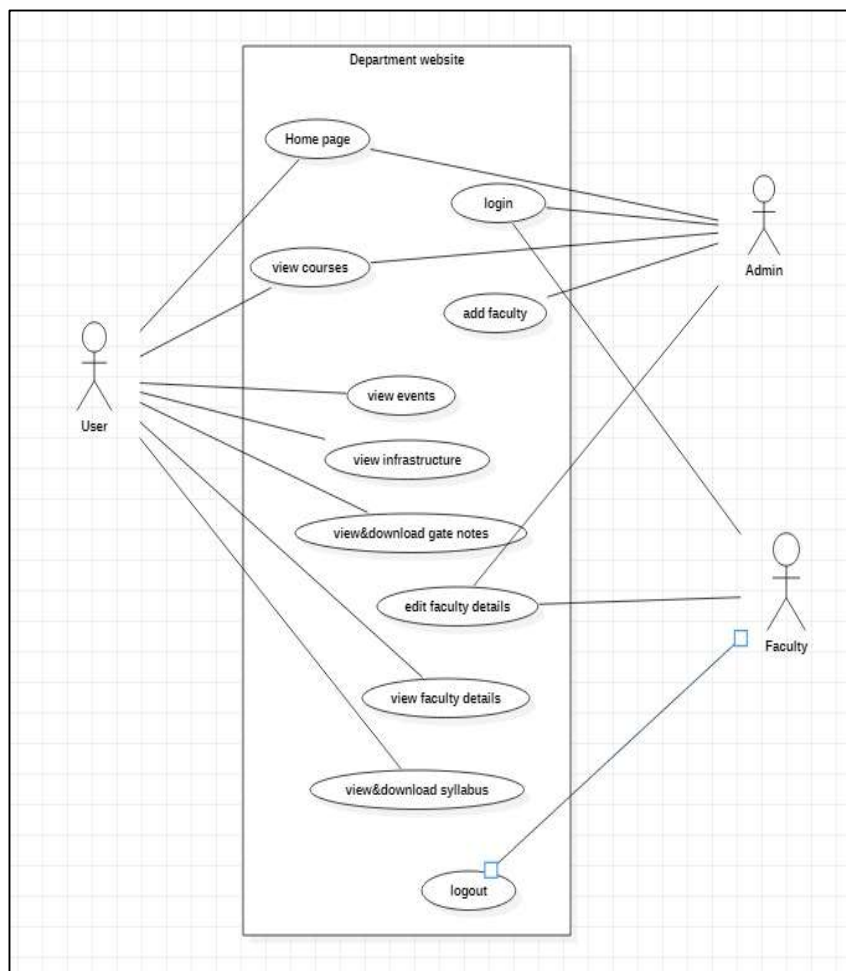


Fig 1.1 Use case Representing Whole functionality of system

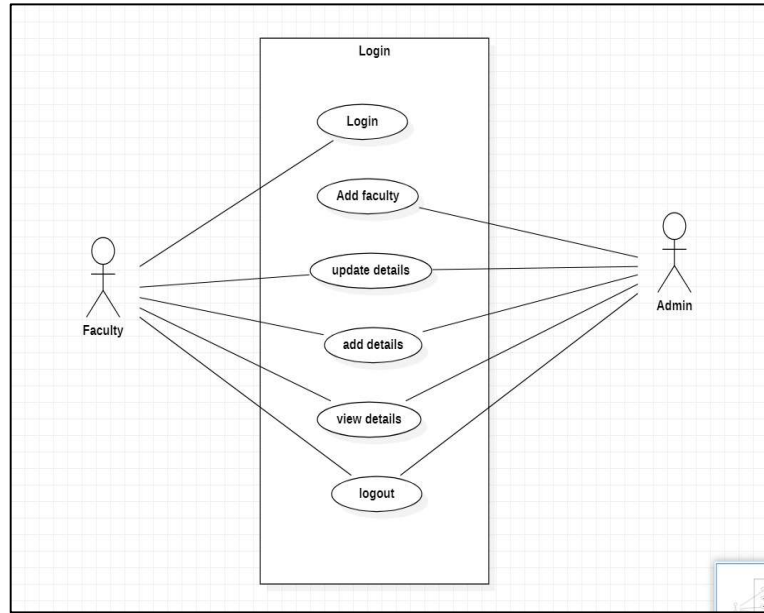


Fig 1.2 Login Use case Diagram

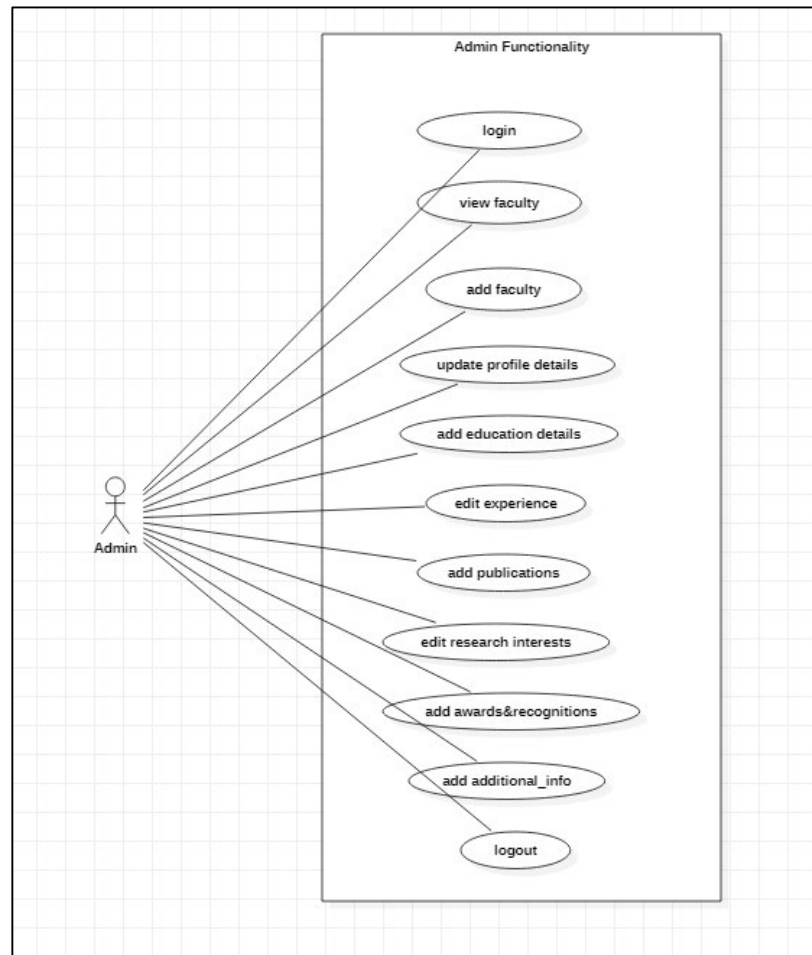


Fig 1.3 Admin Functionality

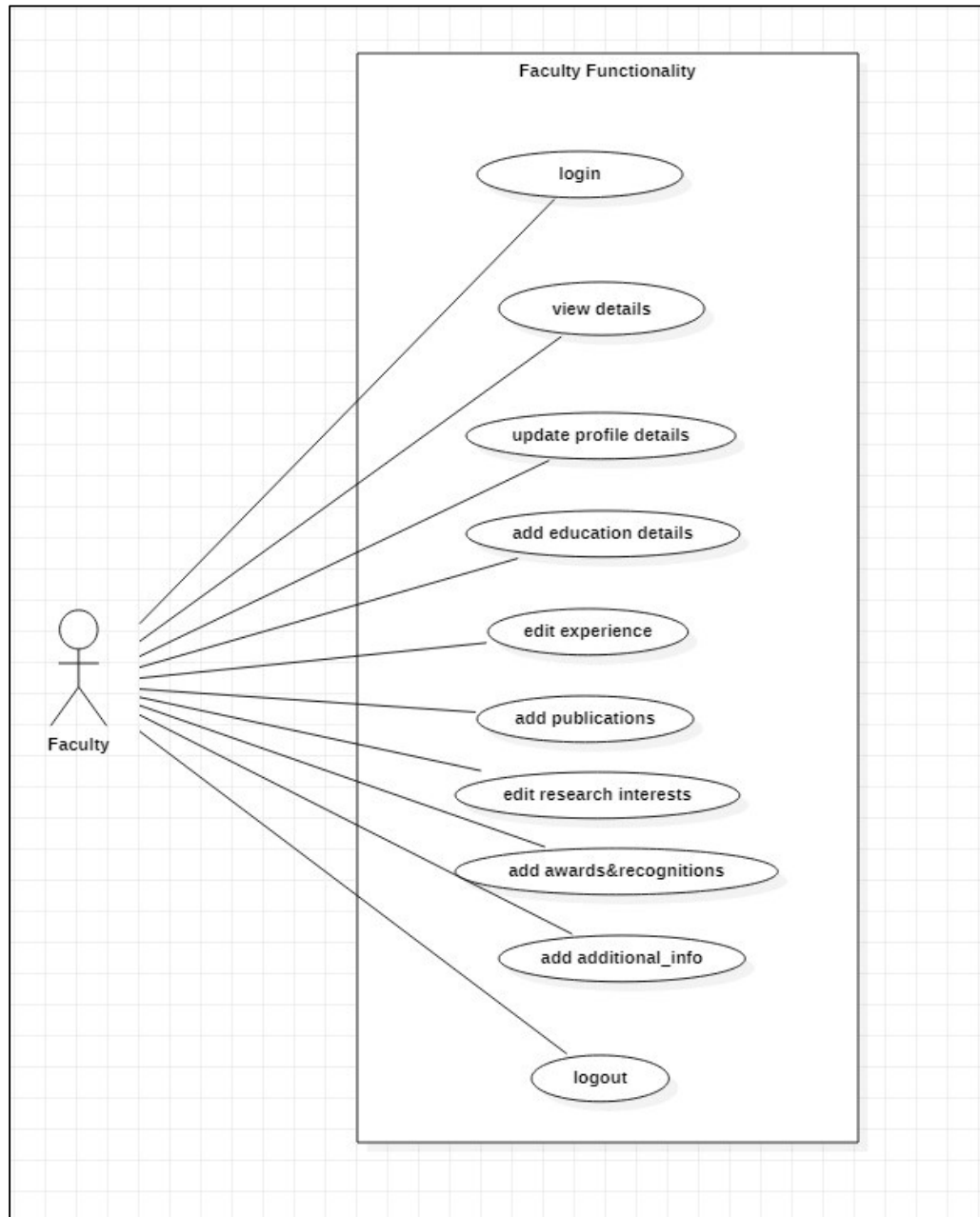


Fig 1.4 Faculty Functionality

3.2.2 Activity Diagram

In UML, the activity diagram is used to demonstrate the flow of control within the system rather than the implementation. It models the concurrent and sequential activities. The activity diagram helps in envisioning the workflow from one activity to another. It put emphasis on the condition of flow and the order in which it occurs. The flow can be sequential, branched, or concurrent, and to deal with such kinds of flows, the activity diagram has come up with a fork, join, etc.

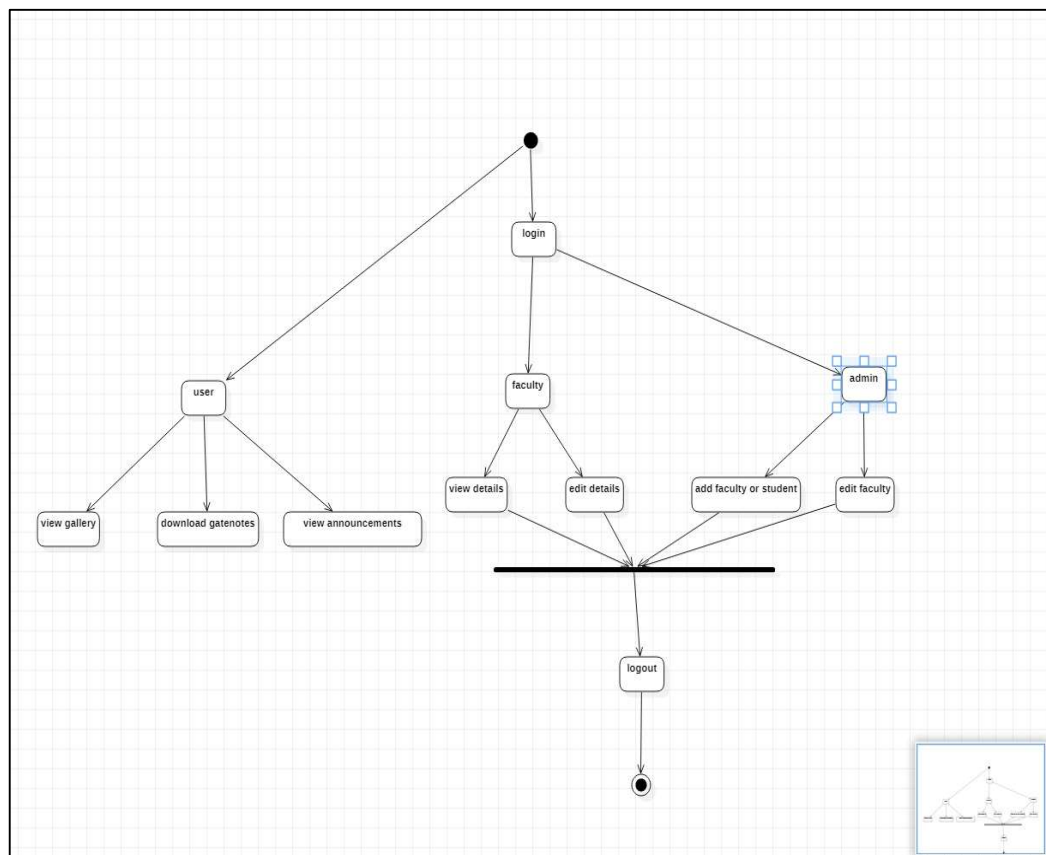


Fig 1.5 Activity Diagram of whole system

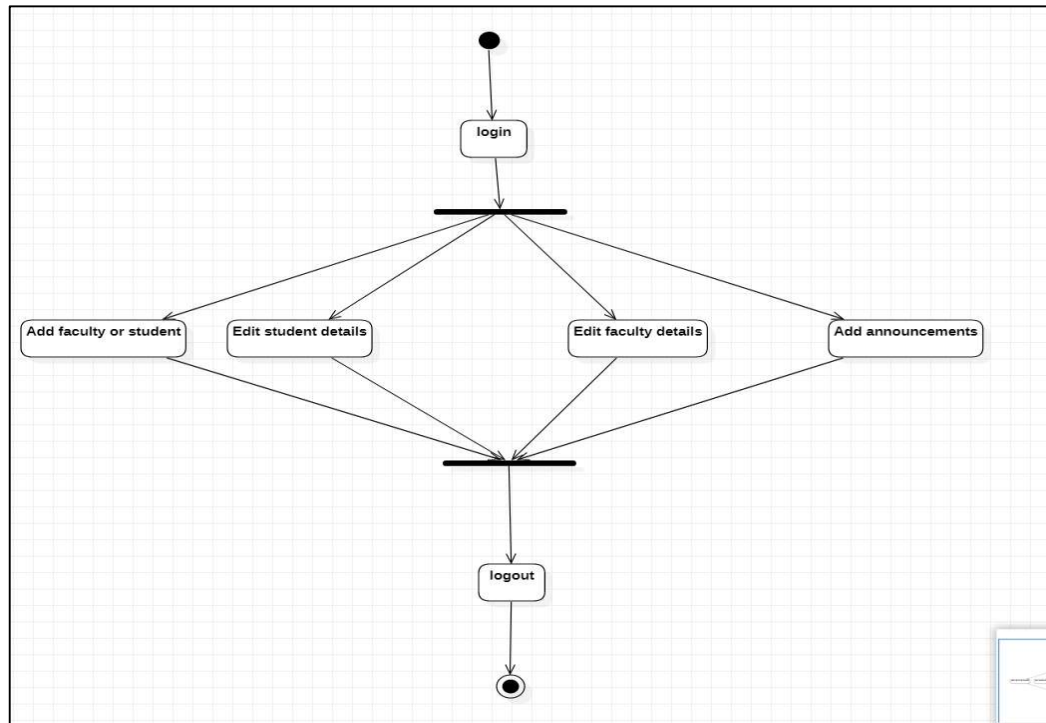


Fig 1.6 Activity Diagram of admin module

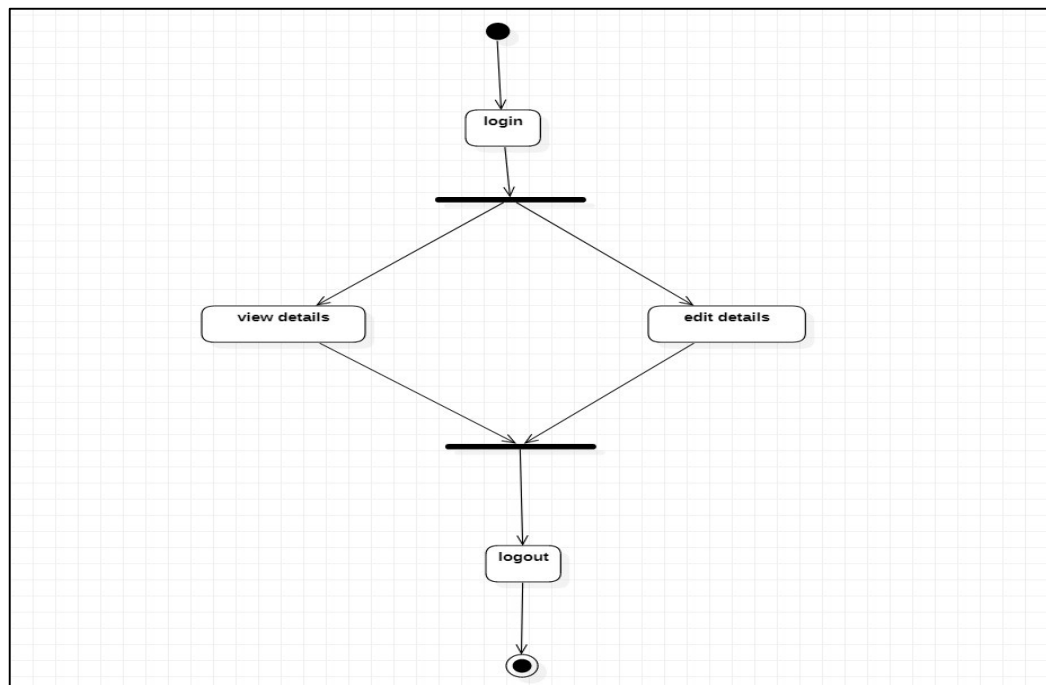


Fig 1.7 Activity Diagram of Faculty

3.2.3 Sequence Diagram

The purpose of sequence diagram is to model high-level interaction among active objects within a system. To model interaction among objects inside a collaboration realizing a use case. It either models generic interactions or some certain instances of interaction. A sequence diagram simply depicts interaction between objects in a sequential order i.e. the order in which these interactions take place.

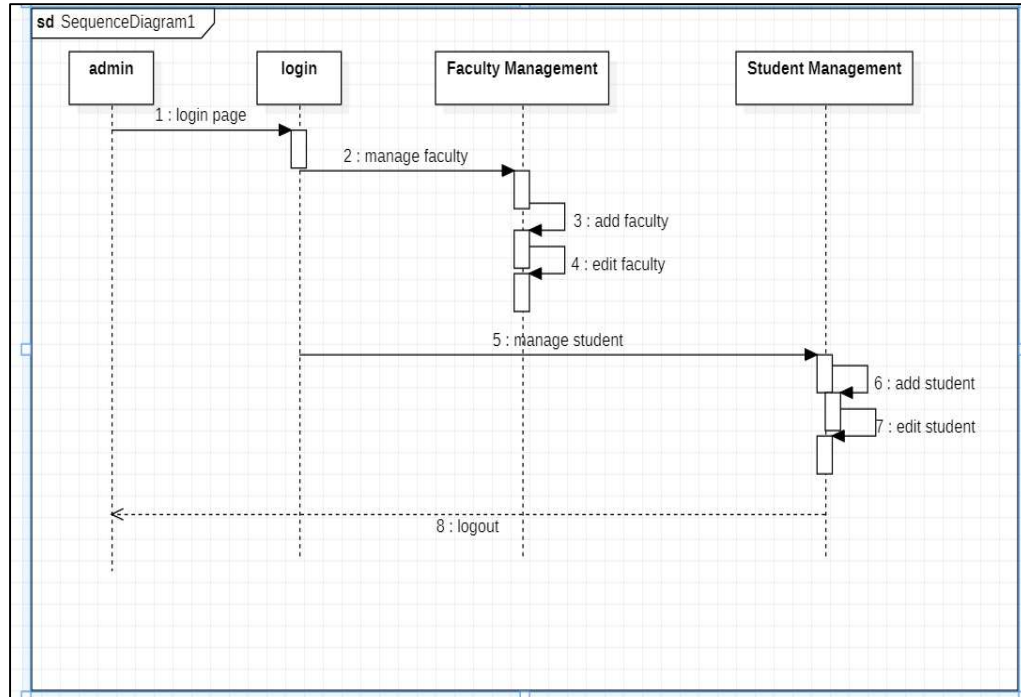


Fig 2.1 Admin Sequence Diagram

3.2.4 ER Diagram

An ER model is typically implemented as a database. In a simple relational database implementation, each row of a table represents one instance of an entity type, and each field in a table represents an attribute type. In a relational database a relationship between entities is implemented by storing the primary key of one entity as a pointer or "foreign key" in the table of another entity.

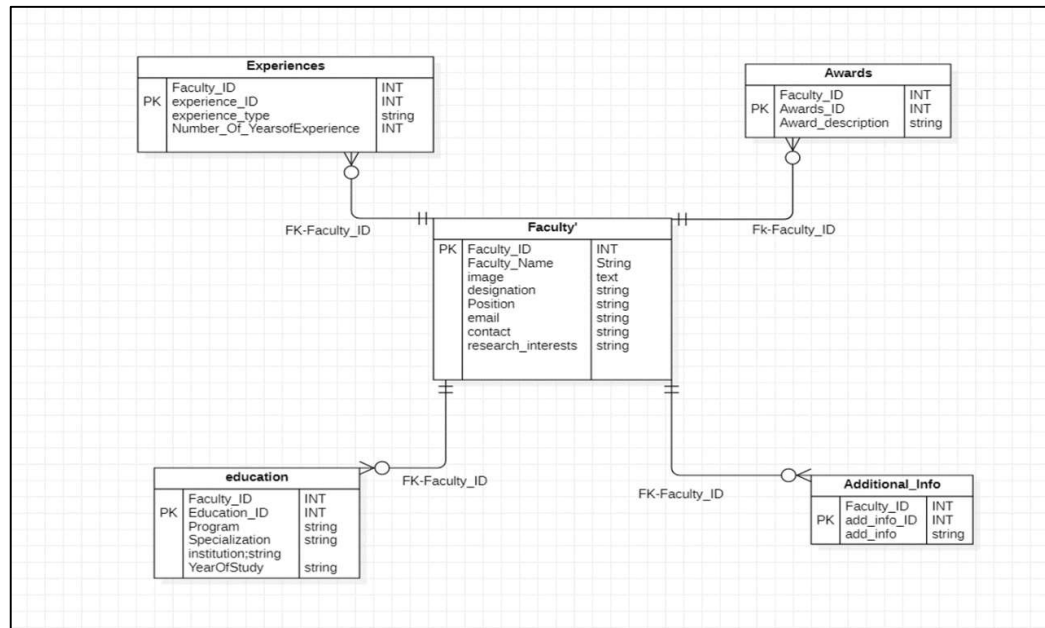


Fig. 2.2 ER Diagram

3.3 Module Design and Organization

Our entire system is divided into three module designs. They are Viewer module, Faculty module and Admin module.

3.3.1 Viewer Module

Viewer can access the website from anywhere in the world through internet. Viewer can go through the programmes offered by the department, syllabus of various semesters. Viewer can view the Faculty of the Department. Viewer can go through the publications and research works of various Faculty. Viewer can have a glimpse of the department infrastructure, various events of the department and the gallery of the department.



Fig 3.1.1 Home Page

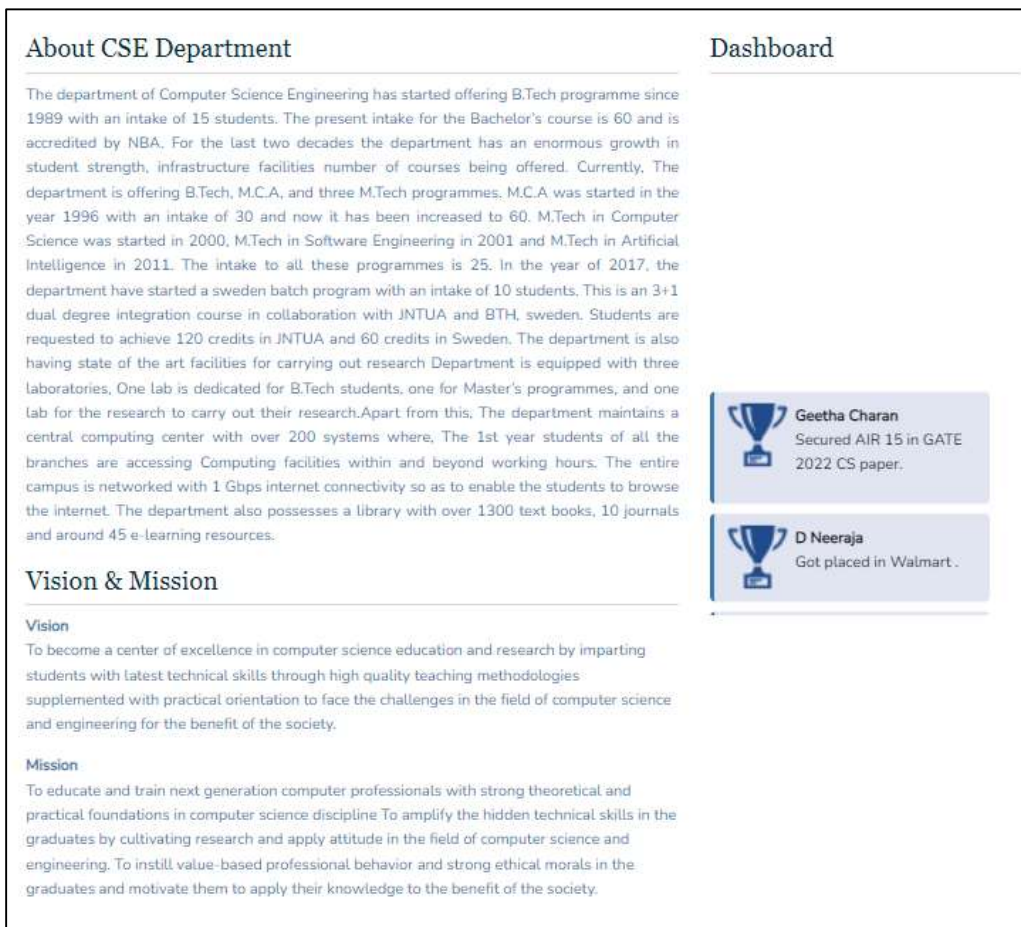


Fig 3.1.1 Home Page

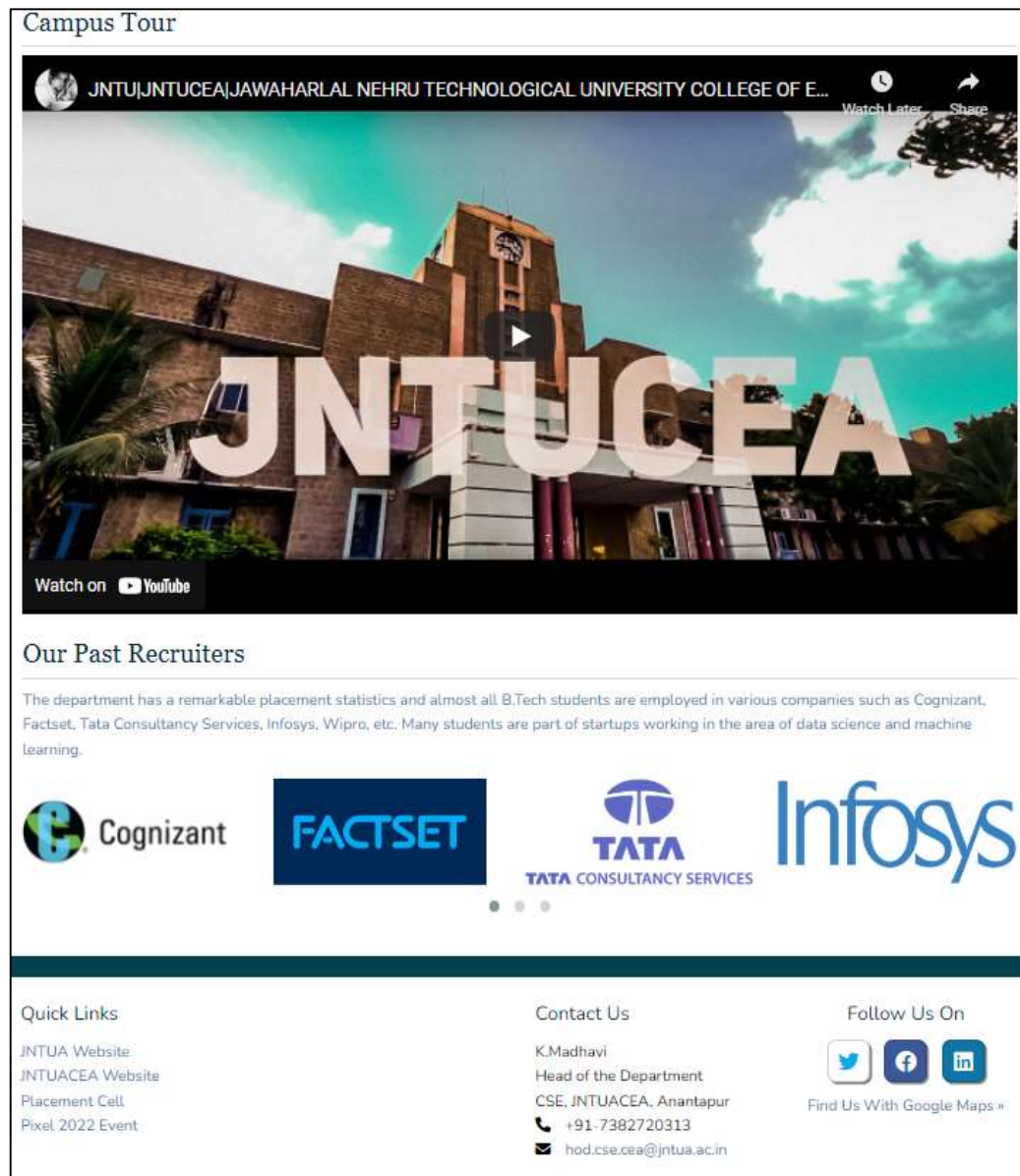


Fig 3.1.3 Home Page

Home Page of the Department website consists of information about the department, vision and mission of the department etc.

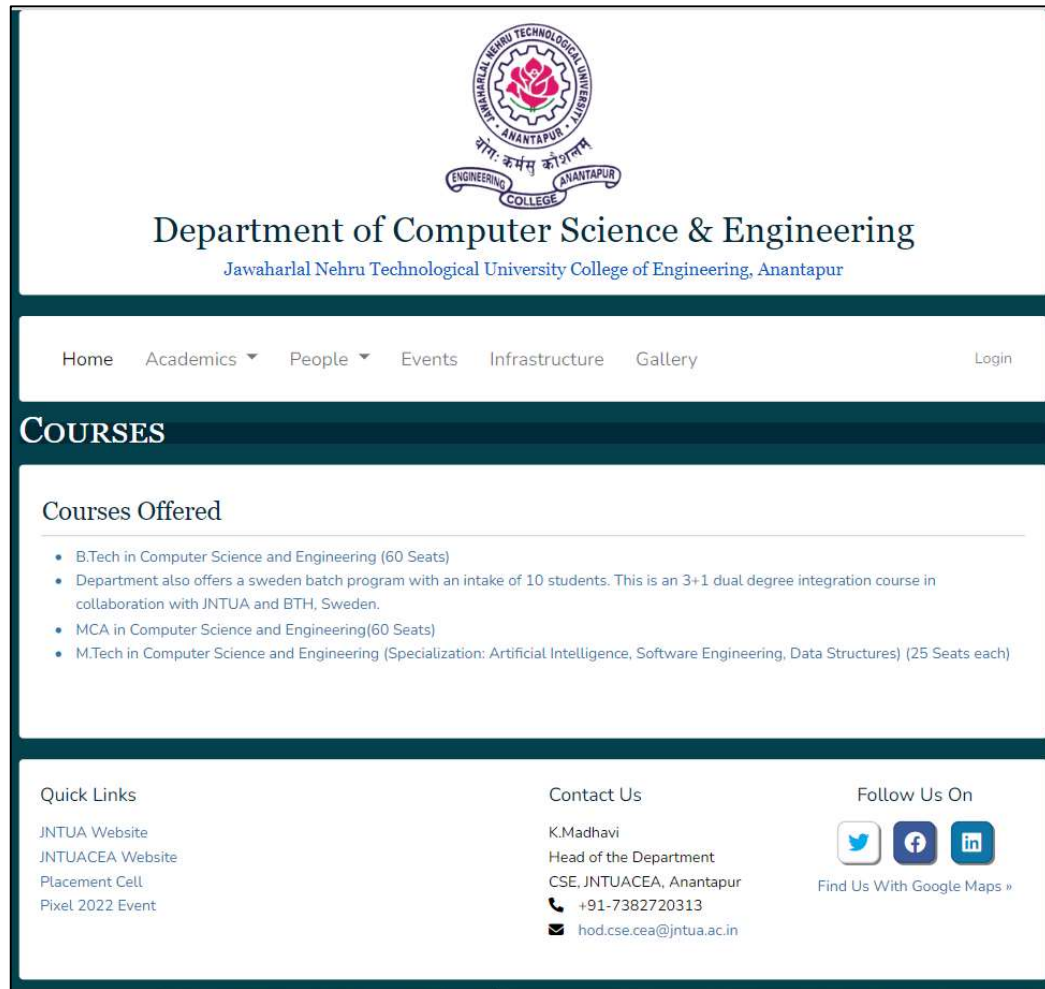


Fig 3.2 Courses Offered

The courses offered page of the website consists of the information about different courses offered by the department.

OBJECTIVES & OUTCOMES

Programme Educational Objectives (PEOs):

- PEO 1. Graduates of the program are adequately prepared to be employed in IT industries and Public Sector companies by forecasting a logical and practical approach to problem solving that would prepare them to function effectively as skilled computer engineers
- PEO 2. To impart students with solid foundation in mathematics, computing and core engineering fundamentals so as to help them to excel in their professional career or higher education
- PEO 3. To promote lifelong learning by encouraging research and an attitude to apply the basic theories learnt during their graduation, leading to the creativity and productivity in their respective fields.
- PEO 4. To inculcate students with leadership qualities, communication skills and ethical behavior as IT professionals that can lead to positive impact of technology on society

Programme Outcomes

- PO 1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO 2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO 3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO 4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO 5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO 6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO 7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO 8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO 9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO 10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO 11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO 12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes

- PSO 1. Ability to understand and apply the concepts of mathematics, basic sciences, basic computing, in analyzing the real world problems and solving them.
- PSO 2. Ability to design and develop computer programs/ computer-based systems in the areas related to algorithms, networking, web design, and data analytics using Software engineering principles and practices.
- PSO 3. Ability to imbibe ethical and professional skills required to work in teams and lead the team.

Fig. 3.3 Objectives and Outcomes

The objectives and outcomes page of the website consists of programme Educational Objectives, Programme Outcome and Program Specific Outcomes

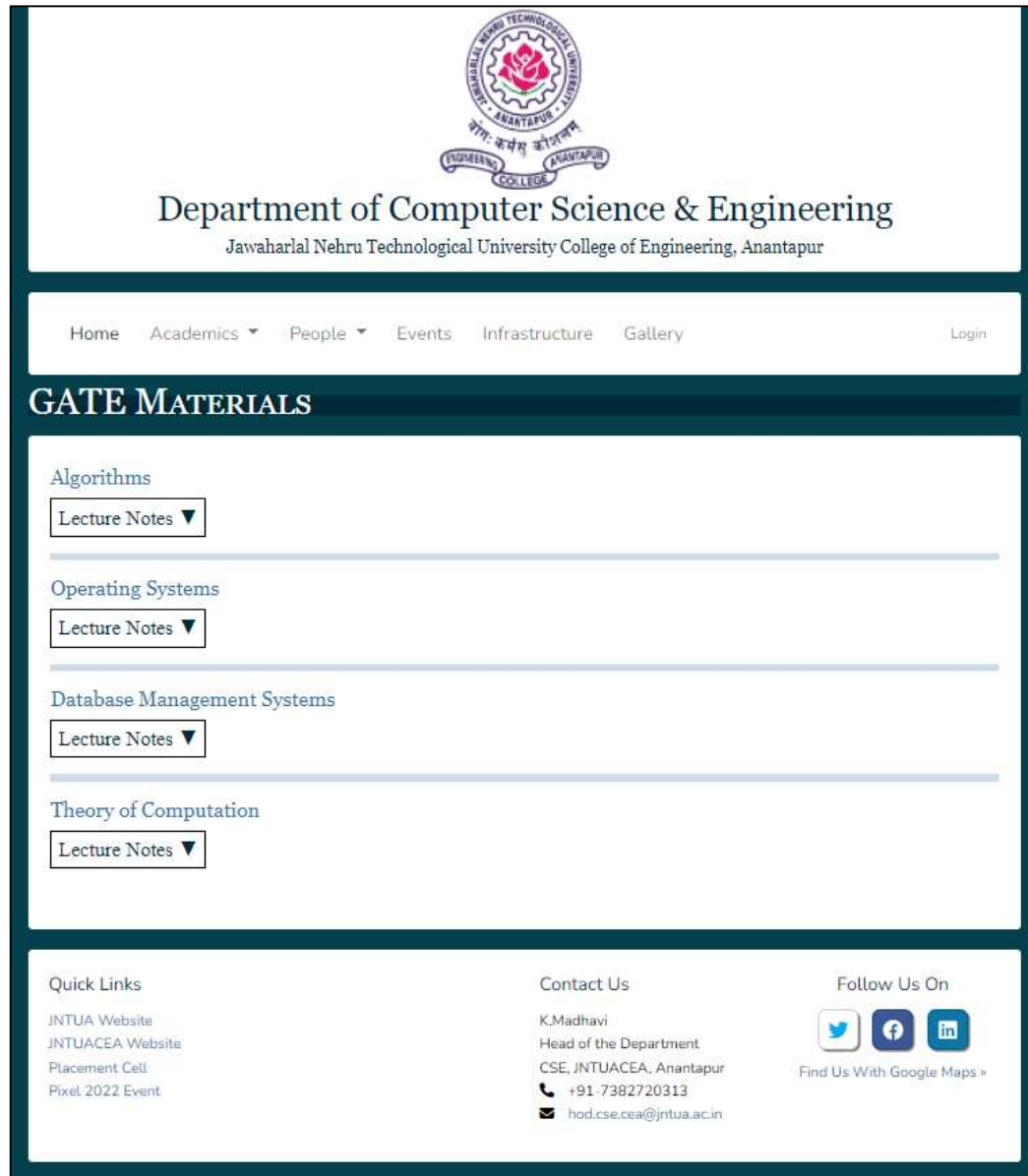


Fig. 3.4 Gate Materials

The Gate Materials page of the website consists of various Gate Materials that can be accessed by the students

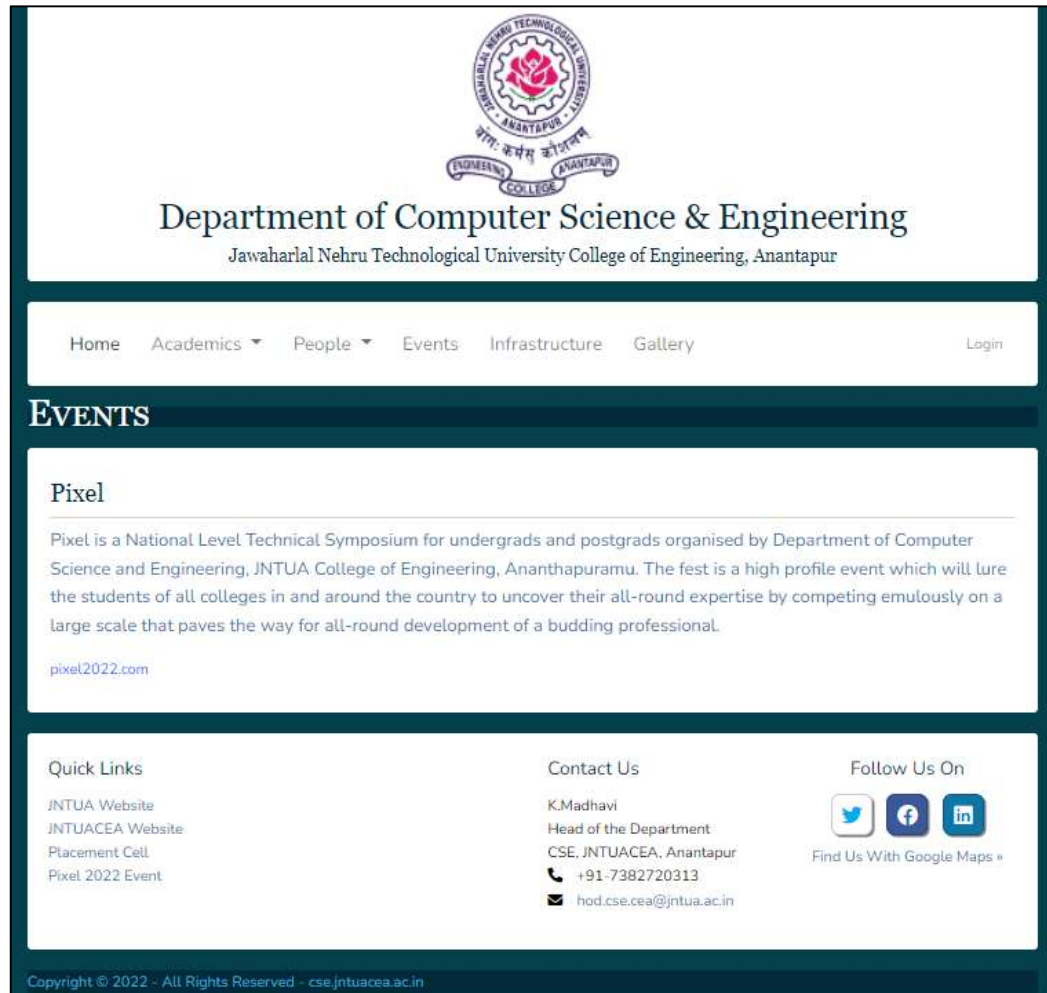



Fig. 3.5 Events Page

The Events Page consists of Various Events that are conducted and organised by the CSE department



Department of Computer Science & Engineering

Jawaharlal Nehru Technological University College of Engineering, Anantapur

Home
Academics ▾
People ▾
Events
Infrastructure
Gallery
Login

INFRASTRUCTURE

The Department of Computer Science & Engineering has excellent Infrastructure with spacious seminar halls in terms of general requirements and state of art laboratories for carrying out academic activities. Department has 2 Seminar halls, 3 Laboratories, 8 staff Rooms. The Department has a library to meet the specific needs of faculty as well as students in addition to the Central Library

S. No.	Name of the Infrastructural facility	Number
1	Department Library	01
2	Seminar Halls	02
3	UG/PG Students' laboratories	02
4	Research laboratories	01
5	Staff Rooms	07




Quick Links

- [JNTUA Website](#)
- [JNTUACEA Website](#)
- [Placement Cell](#)
- [Pixel 2022 Event](#)

Contact Us

K.Madhavi
Head of the Department
CSE, JNTUACEA, Anantapur
☎ +91-7382720313
✉ hod.cse.cea@jntua.ac.in

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Fig. 3.6 Infrastructure page

The infrastructure page consists of the information regarding infrastructure of the department

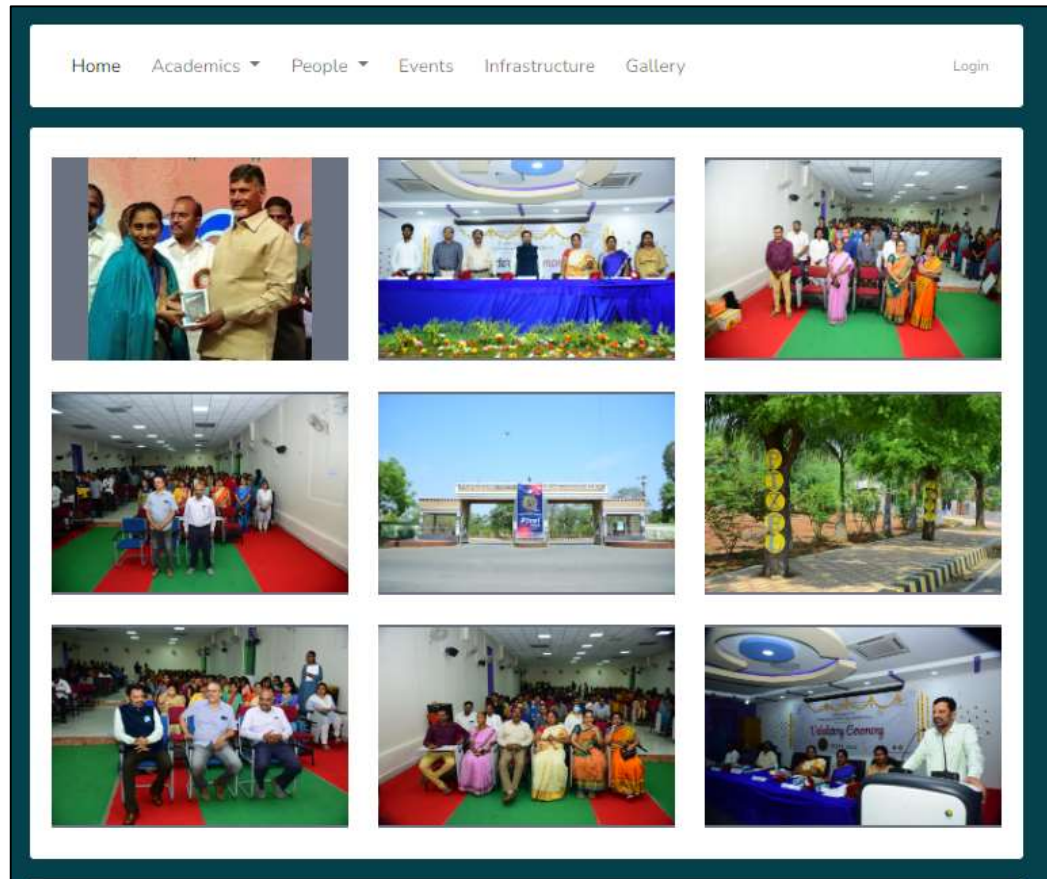



Fig. 3.7 Department Gallery

Gallery page consists of the images of different events of the CSE Department

[Home](#)
[Academics](#)
[People](#)
[Events](#)
[Infrastructure](#)
[Gallery](#)
[Login](#)


FACULTY

Department of Computer Science and Engineering




Dr.K. Madhavi

Head of CSE Department
Associate Professor
E-mail: hod.cse.cea@jntua.ac.in
Ph: 7382720313(O)



Dr. A. Ananda Rao

Vice Chancellor, Rayalaseema University
Professor
E-mail: Aarao.cse@jntua.ac.in
Ph: 9440990090



B.Eswara Reddy

Director Software Development Centre Secretary, Indian Society for Technical Education (ISTE), AP Section Vice Chairman, IEEE Anathapuramu Sub Section.
Professor
E-mail: eswar.cse@jntua.ac.in
Ph: 9866937766

Fig. 3.8 Faculty Details Page

Faculty Details Page consists of the Details of all the Faculty of the Department

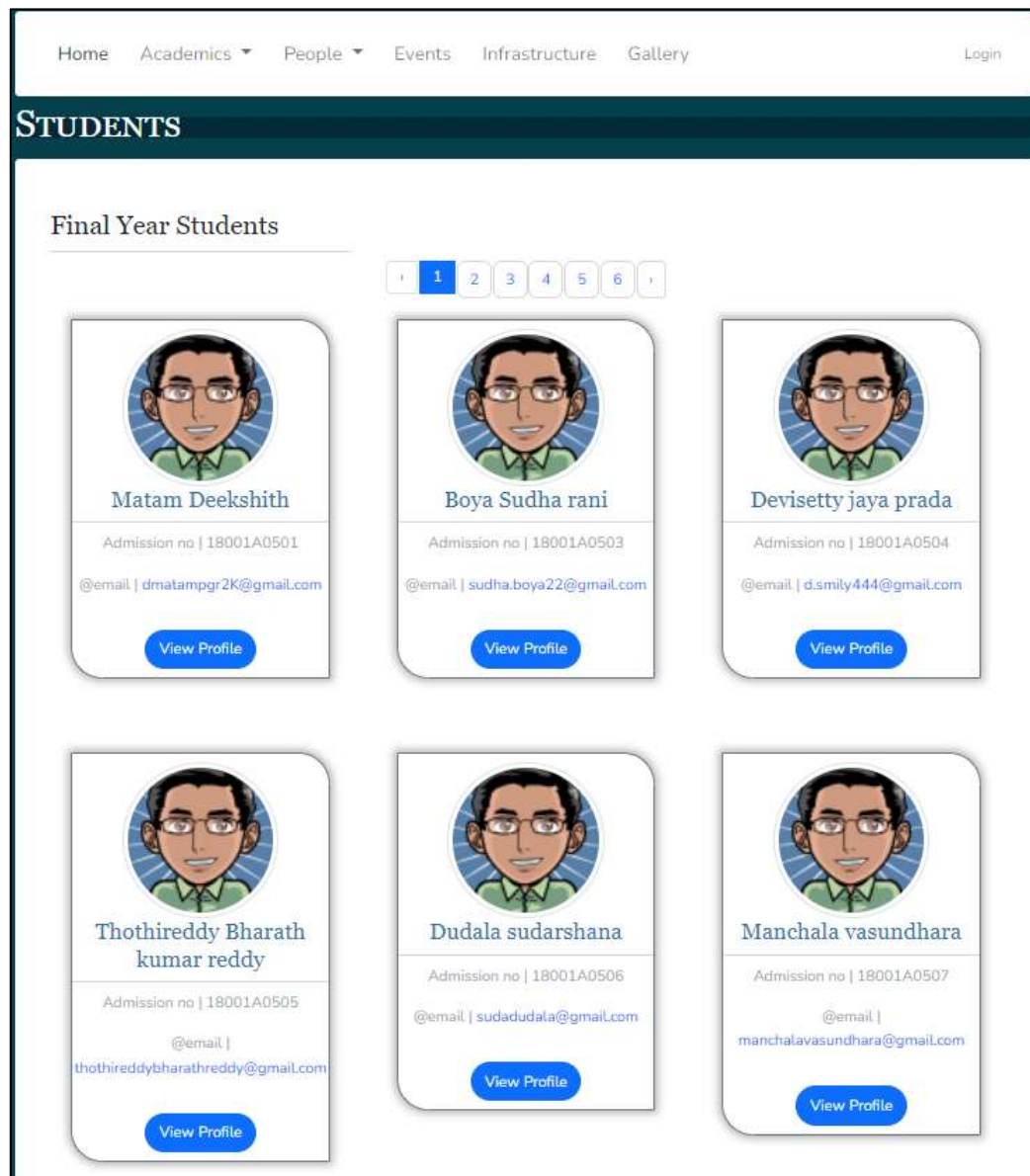
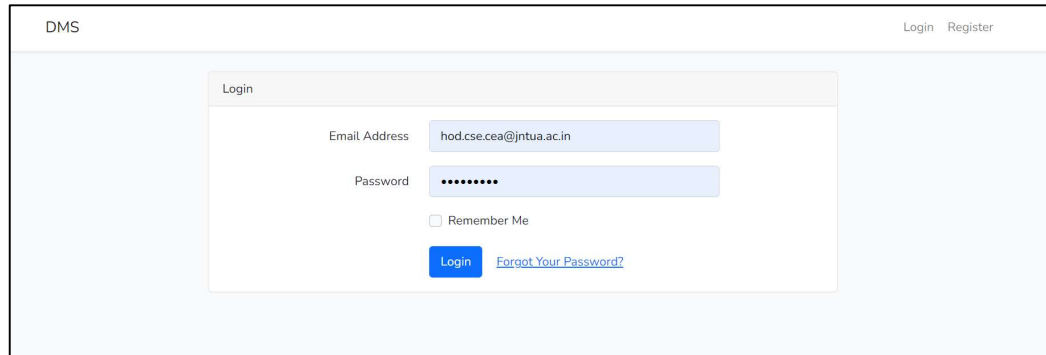


Fig. 3.9 Students page

Students Page consists of Details of the Students and their mail ids.

3.3.2 Faculty module

Faculty can login using their email and password. After successful logging into the system faculty can edit their respective profile details. Faculty can update their details such as publications, awards and recognitions etc.

The image shows a web browser window displaying the 'DMS' (Department Management System) login page. The page has a light blue background. At the top left, the text 'DMS' is visible. At the top right, there are links for 'Login' and 'Register'. In the center, there is a white box with a light blue border titled 'Login'. Inside this box, there are two input fields: 'Email Address' with the value 'hod.cse.cea@jntua.ac.in' and 'Password' with masked characters '*****'. Below the password field is a checkbox labeled 'Remember Me'. At the bottom of the login box, there is a blue 'Login' button and a link that says 'Forgot Your Password?'.

DMS

Login Register

Login

Email Address hod.cse.cea@jntua.ac.in

Password *****

☐ Remember Me

Login [Forgot Your Password?](#)

Fig. 3.10 Login page

Faculty need to login to edit their Details. The mail id and password are to be entered by the faculty




Fig. 3.11 Faculty Home Page

After logging in the faculty home page is displayed.

[Home](#)
[Academics](#)
[People](#)
[Events](#)
[Infrastructure](#)
[Gallery](#)
K Madhavi

FACULTY

Faculty



Dr.K. Madhavi

Head of CSE Department

Associate Professor

E-mail: hod.cse.cea@jntua.ac.in

Ph: 7382720313(O)

Education

Ph. D Computer Science & Engineering	2012
M.Tech Computer Science & Engineering	2002
B.Tech Electronics & Communications Engineering	2000
Diploma Electronics & Communications Engineering	1990

Experience

Teacher Experience	15 years
Research Experience	11 years

Fig. 3.12 Faculty Profile page

The faculty profile page consists of an edit icon for every field after logging in

X

Update profile

Name

Current position

Designation

E-Mail Address

Phone Number

Profile Photo

No file chosen

Fig. 3.13 Update Profile

By clicking on the edit icon the details can be edited

3.3.3 Admin module

The administrator is a role that is peculiar to the Department Website. It is at the top of the hierarchy and is the only function with full power in relation to the entire platform. This role is the only one to have a vision of the whole Department Website, both Faculty and uploaded content. Admin is the one who controls the system. Admin adds Faculty or Student into the system if necessary. Admin has a separate dashboard for doing all his activities.

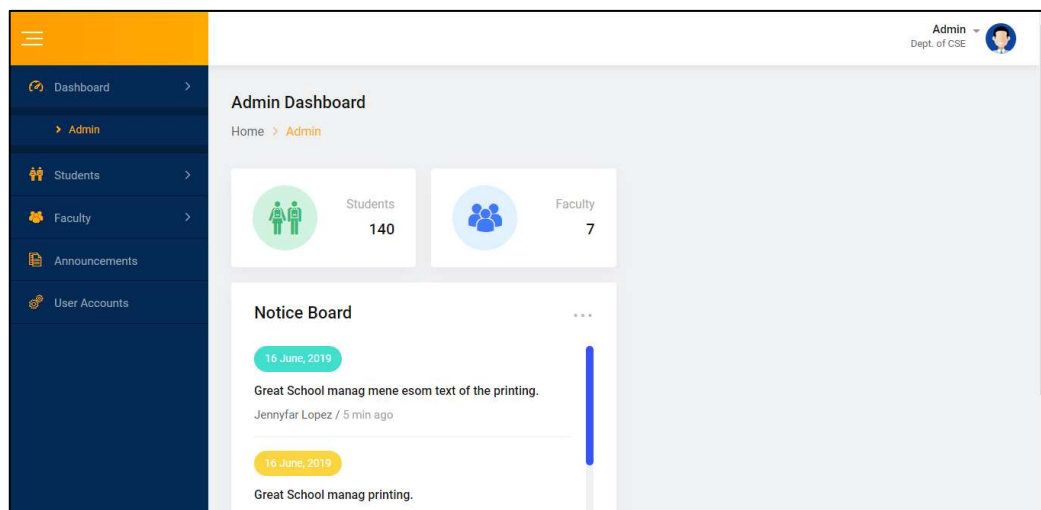


Fig. 3.14 Admin Dashboard

The Admin Dashboard that is displayed after admin login

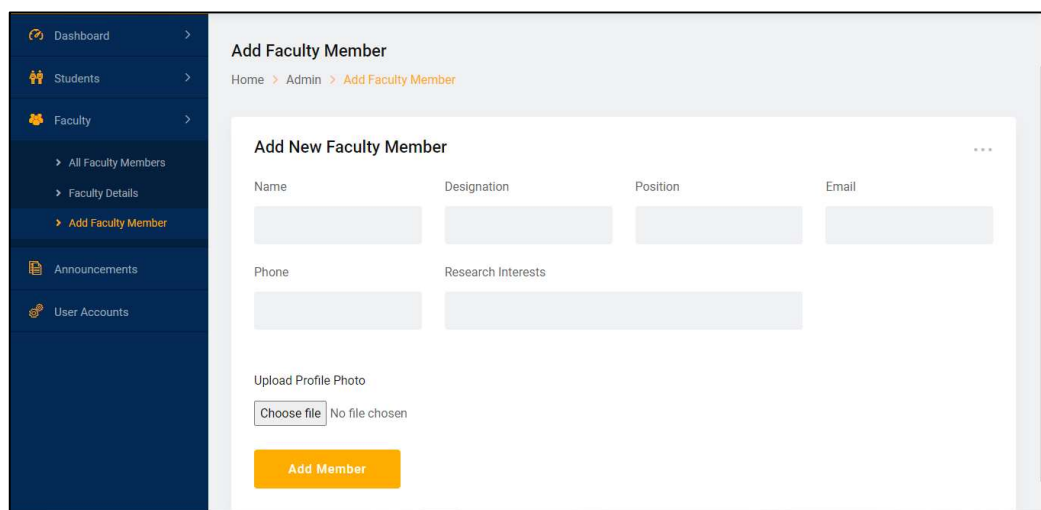


Fig. 3.15 Adding Faculty Member

The Adding Faculty member module in admin dashboard

The screenshot displays the 'Announcements' section of the JNTUACEA CSE Department Web portal. On the left is a dark blue sidebar with navigation links: Dashboard, Students, Faculty, Announcements (highlighted), and User Accounts. The top right corner shows the user 'Admin' from the 'Dept. of CSE'. The main content area is titled 'Announcements' and includes a breadcrumb trail: Home > Admin > Announcements. Below this is a form titled 'Add an Announcement'. The form contains four input fields: 'Title', 'Description', 'Hyperlink(if any)', and 'Image(if any)'. The 'Image(if any)' field includes a 'Choose file' button and the text 'No file chosen'. An orange 'Add Member' button is located at the bottom of the form.

Fig. 3.16 Adding Announcements

Adding an announcement through the admin dashboard

Chapter-IV

Implementation

4.1 Introduction

Implementation is the stage in the project where the theoretical design is turned into a working system. The implementation phase constructs, installs and operates the system. The validity and proper functionality of all the modules of the system is assured during the process of implementation. It is the process of assuring that the information system is operational and then allowing user to take over its operation for use and evaluation.

4.2 Methods of Implementation and Results

There are six minor steps followed for implementing this system:

1. Planning

Planning is crucial for successful implementation of Department Website. We set up a communication plan between our members before implementing this system. We considered some key points which help in implementation of this system. What is objective of my system, what are the configurations needed for my system, What are the external integrations needed, What are the maintenance steps needed for system?

2. Configuration

There are many assets considered for this system such as networks, operating systems, data stores and servers. Not configuring these assets will degrade the performance of this system. Configuring is one of the important steps in implementation.

Below are some of the configurations needed for our system:

- Information stored in Faculty profiles
- Security permissions for admin and Faculty
- Structure of Faculty information module

3. Integration

Department Website can integrate with other solutions, making it easy to update and access critical information. Here are some of the common integrations for our system:

- Integrating Faculty and admin with our system
- Links that take users to specific faculty profiles
- Documents that relate to a particular Gate Material
- Announcements links that redirect to a document about the announcement

4. Testing

Testing checks the entire Department Website to ensure it's working properly, with no errors or bugs. A good start is to prepare a list of all actions that various users perform with this system. Need to identify the input and expected output of system by forming various test cases. Debug the bugs if any. Errors and Bugs are loopholes in the system which degrades performance of the system.

Chapter –V

Testing and Validation

5.1 Introduction

Software testing is a critical element of software quality assurance and represents the ultimate review of specification, design and coding. In fact, testing is the one step in the software engineering process that could be viewed as destructive rather than constructive.

A strategy for software testing integrates software test case design methods into a well-planned series of steps that result in the successful construction of software. Testing is the set of activities that can be planned in advance and conducted systematically. The underlying motivation of program testing is to affirm software quality with methods that can economically and effectively apply to both strategic to both large and small-scale systems.

5.2 Design of Test Cases and Scenarios

The Chapter which is presented below deals with various tests that have made to the developed software so as to detect the failures it may have. Along this chapter there will be carried out of test: **Unit tests, Integration tests and Selenium testing.**

1. Unit Testing

Unit testing, a testing technique using which individual modules are tested to determine if there are any issues by the developer himself. It is concerned with functional correctness of the standalone modules. The main aim is to isolate each unit of the system to identify, analyse and fix defects.

Sometimes software developers attempt to save time by doing minimal unit testing. This is a myth because skipping on unit testing leads to higher defect fixing costs during System testing, Integration testing and even Beta testing after the application is completed. Proper unit testing done during the development stage save both time and money in the end. PHP unit has been used as a tool for unit testing.

Here are key reasons to perform unit testing:

1. Unit tests fix bug early in development cycle and save costs.

2. It helps understand the developers the code base and enable them to make changes quickly.
3. Good Unit tests serve as project documentation.
4. Unit tests help with code re-use.

S.NO	Scenarios	Expected Result	Actual Result	Status
1.	Adding a Faculty admin by	Add a new Faculty member and display his profile	Successfully able to view the new Faculty member profile	success
2.	Login to website by Faculty	Login successfully.	Logged in successfully	success
3.	Edit respective Details	Edit the respective Faculty Details	Successfully Edited the Details	success
4.	Logout after editing the details	Logout successfully	Logout successfully	success
5.	Create an announcement	Announcement is added	Announcement is added successfully	success
6.	Remove an announcement	Remove an announcement	Removed an announcement successfully	success
7.	Add education Details	Education Details added successfully	Education Details added successfully	success
8.	Add a new publication	Added a new publication	Added a new publication successfully	success
9.	Add a new award	Added an award	Added award details successfully	Success
10.	Add a new administrative work under additional info	Added new additional info	Added additional information successfully	Success

Table 1.0 Unit Testing Modules

2. Integration Testing

Integration testing is a level of software testing where individual units are combined and tested as a group. The purpose of this level of testing is to expose faults in the interaction between integrated units. Test drivers and test stubs are used to assist in integration testing. Integration testing ensures that software and subsystems work together as a whole. It tests the interface of all modules have properly when integrated together.

3. Selenium Testing

Selenium is a portable framework for testing web applications. Selenium provides a playback tool for authoring functional tests without the need to learn a test scripting language (Selenium IDE). It also provides a test domain-specific language to write tests in several popular programming languages, including C#, Groovy, Java, Perl, PHP, Ruby, and Scala.

Selenium is an open-source, test automation tool that has become an important automation tool in the software quality assurance world. This selenium testing tool consists of a different set of tools which include Selenium Web Driver, Selenium RC, Selenium IDE, and Selenium Grid, all of which have different features. Here we are using Selenium IDE. Selenium IDE is simple record and playback kind of tool which is available as add-on to the browser.

1. Login to system by Faculty

Faculty is authenticated to the system by entering email and password. If he is authenticated then logging into system is successful. Below is selenium test case which is passed successfully.

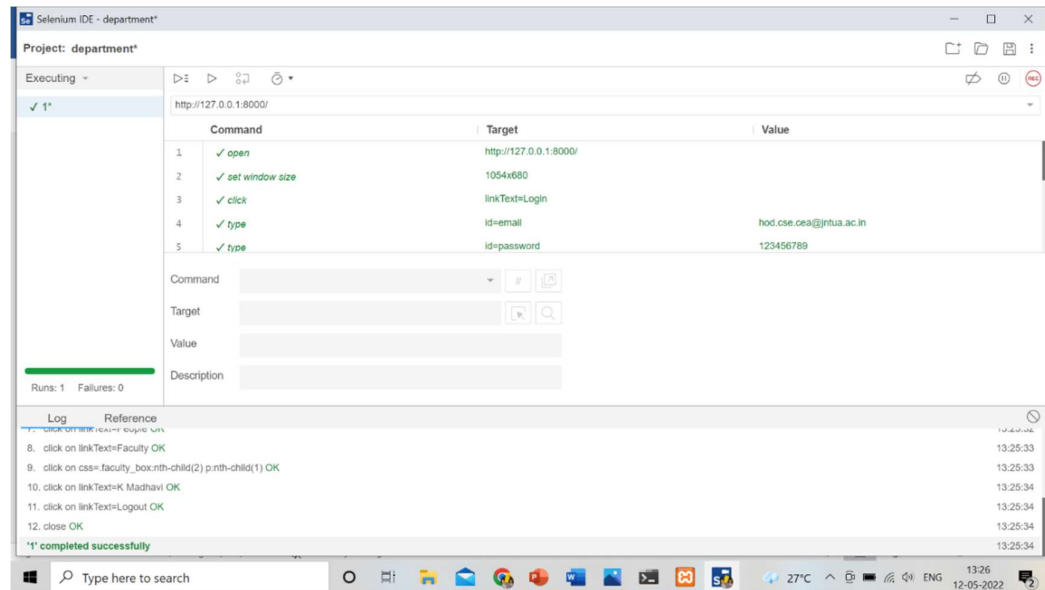


Fig 5.1 Selenium Testing on Faculty Module

2. Edit Faculty Profile

If a Faculty wishes to edit their profile details then they have to login with their details and select the edit field to edit respective details. Faculty can edit their profile, add publication details, add education details etc.

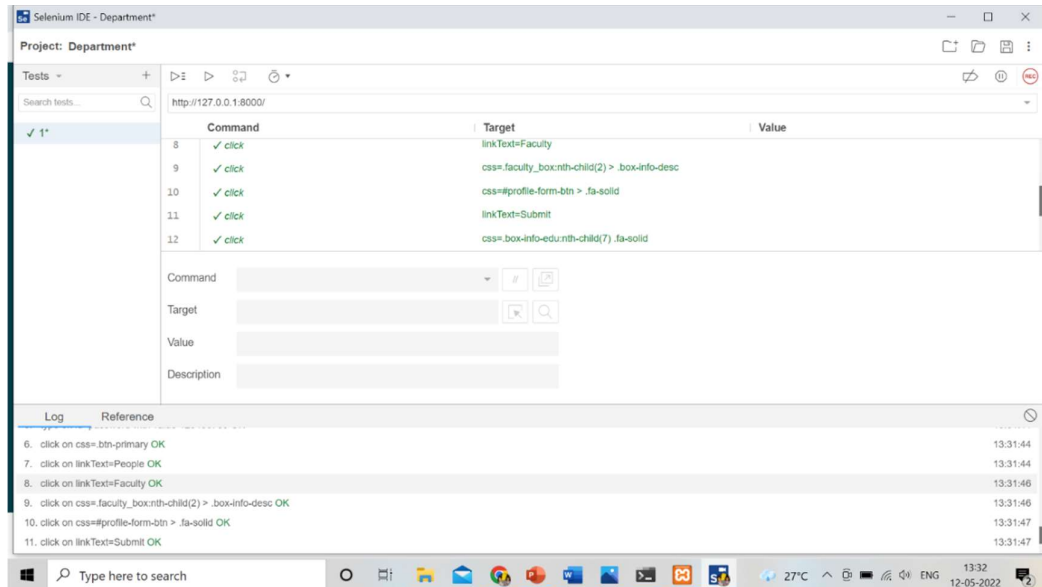


Fig 5.2 Selenium Testing on Edit Faculty Module

Conclusion

- ☐ **In this COVID pandemic time, doing things online is a good way.**
- ☐ **Maintains healthy communication between the students, faculty, and department.**
- ☐ **Providing our upcoming batches with an efficient and user-friendly website.**
- ☐ **Department Website can be integrated with the college website.**
- ☐ **Hence reducing the time required for getting the information regarding the department.**

References

1. <https://www.jntuacea.ac.in/aboutcse.php> All Details required for the department website have been referred from the college website.
2. <https://www.cse.iitb.ac.in/> we referred IIT Bombay website for idea of how they are organizing the system.
3. <https://laravel.com/docs/9.x> we referred Laravel Docs for developing backend business logic.
4. <https://www.w3schools.com/> we referred W3Schools website for designing and implementing HTML and CSS layouts
5. <https://getbootstrap.com/> we referred bootstrap website for styling the html elements.