

PG Dissertation Management System Description.

A PROJECT REPORT

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Under the guidance of,

Dr. N Thrimoorthy-Asst.Prof-Senior

in partial fulfillment for the award of the degree of

**BACHELOR OF TECHNOLOGY
IN**

COMPUTER SCIENCE AND ENGINEERING

At



SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

PRESIDENCY UNIVERSITY

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PRESIDENCY UNIVERSITY
SCHOOL OF COMPUTER SCIENCE ENGINEERING
CERTIFICATE

This is to certify that the Project report "**PG Dissertation Management System Description**" being submitted by "**SUMEETH SANGAT , PAVAN KUMAR , VIJETH**" bearing roll number(s) "**20211CSE0535, 20211CSE0552, 20211CSE0575**" in partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in **Computer Science and Engineering** is a bonafide work carried out under my supervision.

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DECLARATION

We hereby declare that the work, which is being presented in the project report entitled **PG Dissertation Management System Description** in partial fulfillment for the award of Degree of **Bachelor of Technology** in **Computer Science and Engineering**, is a record of our own investigations carried under the guidance of **Dr.N Thrimoorthy - Asst.Prof-Senior Scale-SOIS School of Computer Science Engineering & Information Science, Presidency University, Bengaluru.**

We have not submitted the matter presented in this report anywhere for the award of any other Degree.

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SCHOOL OF COMPUTER SCIENCE ENGINEERING

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ABSTRACT

Postgraduate (PG) dissertation is a crucial component of a PG degree, reflecting a student's ability to conduct independent research under guided supervision. The dissertation process begins in the first year with topic selection based on departmental research thrust areas, maintaining student-guide ratio, and ensuring non-duplication of topics. It continues with ethical approvals, monitoring of research progress, evaluation, and potential publication of findings. Managing these aspects across multiple institutions poses significant administrative and quality assurance challenges. To address this, the proposed project aims to develop a centralized and automated application to manage the entire PG dissertation lifecycle. The application will support topic selection with duplication checks, guide allocation, ethical clearance tracking, progress monitoring, evaluation management, and final submission tracking. It will include a searchable database of all dissertations categorized by department, topic, and year, and integrate mechanisms to hold final year results in case of non-compliance or disapproval. This system ensures transparency, improves efficiency, and enhances the quality of research output. By digitizing and streamlining dissertation management at institutional and national levels, the application will significantly reduce administrative overhead and uphold academic standards. Ultimately, the tool will serve as a valuable resource for students, guides, evaluators, and academic administrators.

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**Vijeth M Hugar
BH Pavan Kumar
Sumeeth Sangat**

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CHAPTER - 1

INTRODUCTION

1.1 BACKGROUND

Postgraduate (PG) dissertation is an essential academic requirement aimed at developing students' research aptitude and analytical thinking. It provides a platform for students to explore innovative ideas, conduct structured investigations, and contribute to their academic domain under faculty supervision. The dissertation process begins in the first year of PG education with topic selection based on the department's thrust areas of research, ensuring relevance and originality. Maintaining a balanced student-guide ratio, obtaining ethical clearances, and avoiding topic duplication are critical considerations. Over the course of study, students conduct in-depth research, guided and evaluated periodically, culminating in a formal dissertation submission in the final year. However, managing and monitoring this entire process at an institutional or national level is complex, involving numerous stakeholders and administrative procedures. Challenges such as improper tracking, lack of transparency, disorganized data, and missed deadlines often affect the quality and credibility of PG dissertations. With universities increasingly focusing on research quality and outcome-based education, there is a growing need to standardize and streamline dissertation workflows. Developing a centralized digital platform can improve transparency and maintain a searchable database of completed dissertations—thus significantly enhancing the research ecosystem across educational institutions.

1.2 RESEARCH MOTIVATION AND PROBLEM STATEMENT

The current manual and semi-digital methods of managing PG dissertations are time-consuming, error-prone, and lack standardization. Students often face delays in topic approvals, difficulty accessing past research for reference, and inconsistent feedback mechanisms. Simultaneously, faculty guides struggle to monitor multiple students' progress efficiently. University administrators find it difficult to maintain centralized records, ensure ethical compliance, or track dissertation evaluation and publication outcomes. These fragmented processes lead to duplication of research topics, non-compliance with submission guidelines, and delays in result announcements. Motivated by these challenges, this project aims to automate and streamline the entire PG dissertation process through a centralized application.

Problem Statement:

"How can we design and implement a centralized digital application to effectively manage the PG dissertation lifecycle—ensuring topic uniqueness, ethical compliance, student-guide ratio maintenance, research progress tracking, and integration with evaluation and result declaration—thereby enhancing efficiency, transparency, and research quality across institutions?"

The proposed solution will not only ease administrative workload but also elevate research standards and student experience. It will serve as a unified platform for students, guides, and evaluators, promoting accountability and timely completion of dissertations, while enabling long-term data retention and research visibility.

1.3 DOMAIN INTRODUCTION

The domain of this project falls under **Academic Management Systems** within the broader field of **Educational Technology (EdTech)**. EdTech focuses on integrating technology to streamline academic activities, enhance learning outcomes, and improve institutional efficiency. Within EdTech, academic research and project management tools play a vital role in organizing and digitizing research workflows across universities. These systems manage research approvals, student-faculty interactions, progress documentation, ethical clearances, and evaluation reports, reducing manual intervention and potential errors.

Managing PG dissertations is a specialized sub-domain that requires dedicated systems capable of handling complex workflows. The dissertation management domain emphasizes research lifecycle tracking—beginning from topic selection to submission, evaluation, and publication. It must support functionalities such as document uploads, progress logs, real-time monitoring, automated notifications, compliance tracking, and final result linkage. Modern solutions in this domain often incorporate role-based access, plagiarism checks, and analytics dashboards to measure institutional research output.

This project contributes to the academic research management domain by offering a scalable, centralized application designed specifically for the PG dissertation workflow. By addressing the unique needs of universities and students, this solution enables a smooth, transparent, and high-quality research experience—strengthening academic standards and encouraging innovation within higher education.

Postgraduate Dissertation Management System Workflow Diagram



Fig 1.1 : Comprehensive Workflow of PG Dissertation Management System

CHAPTER-2

LITERATURE SURVEY

2.1 INTRODUCTION

The literature survey serves as a foundational component of this research, aimed at understanding the current landscape, methodologies, and systems employed in the domain of academic project and dissertation management. With the increasing complexity of managing postgraduate dissertations—including proposal submission, guide allotment, progress tracking, and report evaluations—it is imperative to explore existing solutions and identify their limitations. This review focuses on various dissertation management systems developed in academic institutions and the technologies that support them. By analyzing prior works, this survey highlights the evolution of such systems, the key challenges they address, and the technological advancements that facilitate efficient academic management. This understanding forms the basis for developing a robust, user-friendly, and scalable PG Dissertation Management System tailored to institutional needs.

2.2 RELATED WORK

1. Online Project Management System

An academic project management tool that allowed guide allotment, progress tracking, and report submissions. It enhanced coordination but lacked

institutional workflow integration and role-based access control.

2.Automated Thesis Submission System

This system streamlined thesis submission and review with automated reviewer assignment and plagiarism checking. It improved efficiency but was limited in scalability and version control.

3.Web-Based Academic Workflow System

A system designed to manage dissertation workflows with role-based dashboards and automated notifications. While effective, it faced limitations in UI design and mobile compatibility.

2.3 EXISTING WORK

Table2.1: StudyofExistingTools/Technology/Methods

S.No.	Paper Title	Method/Technology Used	Advantages	Limitations
1	Online Project Management System for Academic Institutions	Web-based application using PHP & MySQL	Facilitates project guide allotment and document submission	Lacks integration with university workflows and role-based access control
2	Automated Thesis Submission and Review System	Web portal with reviewer module & checker	Simplifies submission and review; includes plagiarism detection	No document versioning; limited scalability
3	Academic Research Paper Submission System	Java and JSP-based application	Manages submission deadlines and reviews with admin control	UI not user-friendly; lacks notification features
4	Web-Based Academic Workflow Management System	HTML, CSS, PHP, MySQL	Provides dashboards and process tracking for all stakeholders	Not mobile responsive; lacks automation in evaluation
5	Cloud-Based Thesis Management Platform	Cloud technology with Firebase backend	Enables real-time collaboration and secure storage	Internet-dependent; limited offline functionality

2.4 SUMMARY

The literature survey explores existing tools and systems designed to manage academic projects and dissertations in higher education. Several web-based platforms have been developed to facilitate tasks such as guide allotment, project submission, progress tracking, and review processes. Technologies like PHP, Java, and cloud-based frameworks are commonly used, offering benefits such as improved coordination, centralized data management, and automated workflows. Despite these advancements, many systems face limitations including poor scalability, lack of version control, inadequate user interfaces, and limited integration with institutional workflows. Some platforms also lack role-based access, mobile compatibility, or automated evaluation features. These gaps highlight the need for a more robust, user-friendly, and institutionally adaptable solution. The insights gained from existing methods guide the development of the proposed PG Dissertation Management System, which aims to address these challenges while enhancing efficiency, transparency, and collaboration among students, guides, and administrators.

CHAPTER-3

RESEARCH GAPS OF EXISTING METHODS

Despite the availability of various dissertation and project management systems, most existing methods lack comprehensive integration with institutional processes. Many systems do not support real-time collaboration, version control, or automated evaluation workflows. Additionally, they often fail to offer mobile-friendly interfaces, role-based access control, and intuitive dashboards for stakeholders. Limited scalability and poor user experience further hinder their effectiveness. These gaps present a significant opportunity to develop a PG Dissertation Management System that is user-centric, scalable, and aligned with academic workflows, addressing the specific needs of students, guides, and administrators in a unified platform.

3.1 Lack of Transparency

One of the major research gaps in existing PG dissertation management systems is the lack of transparency throughout the dissertation lifecycle. Current systems often do not provide real-time updates or visibility into the progress of student submissions, guide approvals, or evaluation stages. As a result, students remain uncertain about the status of their work, deadlines, and feedback, leading to confusion and miscommunication. Similarly, guides and administrators face challenges in monitoring multiple students' progress effectively. Without audit trails or activity logs, it becomes difficult to track who performed what action and when, reducing accountability. This opacity can lead to delays, missed deadlines, and disputes. A transparent system is essential to ensure smooth coordination among all stakeholders, promote timely interventions, and maintain academic integrity. Addressing this gap is crucial for developing a reliable PG Dissertation Management System that promotes visibility, accountability, and efficiency across all stages of the research process.

3.2 Subjectivity in Reviews

Another critical research gap in existing PG dissertation management systems is the issue of subjectivity in the evaluation and review process. Most systems lack

standardized rubrics or automated scoring mechanisms, leading to inconsistent assessments based on individual reviewer perspectives. This subjectivity can result in unfair grading, biased evaluations, and discrepancies in feedback quality. Without uniform evaluation criteria, students may receive vague or conflicting suggestions, which hampers their academic progress and causes dissatisfaction. Furthermore, the absence of structured review templates or peer-review mechanisms reduces the reliability and transparency of the assessment process. An effective PG Dissertation Management System must address this gap by introducing standardized evaluation rubrics, digital forms, and structured feedback modules to ensure fairness, consistency, and clarity in reviews. By minimizing subjective variations, the system can enhance the credibility of the evaluation process and promote an equitable academic environment for all stakeholders.

CHAPTER-4

PROPOSED MOTHODOLOGY

Proposed Methodology

The proposed methodology for the PG Dissertation Management System is designed to address the limitations identified in existing solutions by offering a user-friendly, secure, and efficient platform that automates and streamlines the dissertation process. The system follows a modular and layered architecture, built using web technologies such as HTML, CSS, JavaScript for the front end, and PHP or Python (Django/Flask) for the back end, with a MySQL or PostgreSQL database.

The methodology consists of the following key modules:

1. **User Authentication Module:** Role-based login for students, guides, and administrators.
2. **Proposal Submission and Approval:** Allows students to submit dissertation topics for guide review and approval.
3. **Progress Tracking:** Enables periodic updates, progress reporting, and milestone tracking.
4. **Document Upload and Versioning:** Secure upload with version history for thesis drafts and reports.
5. **Evaluation Module:** Structured rubric-based assessment and feedback from guides.
6. **Notification System:** Automated alerts for deadlines, submissions, and feedback.

This methodology ensures transparency, accountability, and efficient workflow management

4.1 Overview of Dissertation Workflow

The PG dissertation process plays a vital role in fulfilling the academic requirements of a post-graduate degree. Typically, students initiate their research journey in the first year by selecting a topic aligned with their department's thrust research areas. They then conduct the research under the guidance of an assigned PG guide and submit the completed dissertation in the final year. The proposed methodology aims to automate and streamline this end-to-end process using a centralized web-based application that can be adopted at departmental, institutional, and national levels.

4.2 Step-by-Step Process Integration

The proposed system will cover the entire dissertation lifecycle.

- **Topic Selection:** Students can submit topic proposals online, and the system will check for duplication using the integrated database. It will ensure the topic aligns with departmental research priorities and guide availability.
- **Guide Allocation:** Based on the student-guide ratio, guides will be assigned automatically to ensure balanced supervision.
- **Approval and Ethics Clearance:** The submitted proposals will undergo multi-level approval, including ethical clearance from a research ethics committee, all facilitated through a digital workflow.

4.3 Research Monitoring and Evaluation

The application will include features for tracking student progress through periodic submissions, progress reports, and guide feedback. Notifications and reminders will ensure timely updates from students. At the final stage, the

dissertation will be submitted digitally and evaluated by assigned internal and external reviewers. The system will record comments, grades, and revision status, maintaining a transparent evaluation process.

4.4 Database and Result Management

All approved dissertations will be stored in a centralized searchable database, categorized by department, research area, guide, and year. This will help in future reference, publication tracking, and plagiarism checks. In case of disapproval, the system will automatically withhold the student's final results until corrections are made and re-approval is granted.

CHAPTER-5

OBJECTIVES

Objectives of PG Dissertation Management System:

The primary objective of the PG Dissertation Management System is to develop an efficient, transparent, and user-friendly platform that streamlines the entire dissertation lifecycle for postgraduate students, guides, and administrators. The system is designed to automate manual processes and enhance communication, tracking, and evaluation. Specific objectives include:

1. **To automate** the submission, approval, and monitoring of dissertation topics and progress.
2. **To provide** a centralized platform for communication between students and guides.
3. **To ensure** transparency in the evaluation process through structured feedback and audit trails.
4. **To improve** accessibility by enabling remote access across devices with a responsive interface.
5. **To facilitate** document uploads with version control for maintaining submission history.
6. **To implement** role-based access control for secure and personalized user interaction.
7. **To generate** reports and notifications to help manage deadlines and academic workflows efficiently.

These objectives aim to improve academic management.

CHAPTER-6

SYSTEM DESIGN & IMPLEMENTATION

The PG Dissertation Management System is designed to streamline and automate the management of postgraduate (PG) dissertations, allowing students, faculty, and administrators to efficiently manage the process of dissertation submission, review, feedback, and approval. This system serves as a central hub for managing key activities related to PG dissertations, from topic selection to final submission, including interaction between students and supervisors.

6.1 Overview of the System:

The PG Dissertation Management System aims to digitize the dissertation process, reducing the administrative burden and providing an accessible and efficient platform for both students and faculty members. The system allows students to submit their dissertation topics, view feedback from supervisors, and track the progress of their dissertations in real-time. Faculty members can review topics, provide feedback, approve or reject submissions, and monitor the overall progress of students.

6.2 Functional Requirements:

The system is designed to fulfill several key functionalities, including:

- **Student Module:**

- Register and log in to the system.

- Submit dissertation topics for approval.
 - Receive feedback and revisions from supervisors.
 - Submit final dissertation after incorporating feedback.
 - Track dissertation status and progress.
- **Faculty Module:**
 - Register and log in to the system.
 - Review and approve/disapprove dissertation topics.
 - Provide feedback and guidance to students.
 - Approve final dissertation submissions.
 - **Admin Module:**
 - Manage users (students and faculty).
 - Assign supervisors to students.
 - Monitor the overall dissertation submission progress.
 - Generate reports for monitoring the entire dissertation process.

6.3 System Design:

The system is divided into several components, each responsible for specific functions. The following diagram illustrates the architecture of the system:

- **Frontend:**
 - The user interface (UI) is developed using HTML, CSS, JavaScript, and Bootstrap for responsive design. This ensures an intuitive and

accessible interface for both students and faculty members.

- **Backend:**

- The server-side logic is implemented using **Python** (Flask/Django), which handles requests, processes user input, and manages the database.

- **Database:**

- The database is designed using **MySQL** (or any relational database) to store user details, dissertation topics, feedback, submissions, and other related data.

CHAPTER 7

TIMELINE FOR EXECUTION OF PROJECT (GANTT CHART)

Phased Implementation of the Pg dissertation Management System

Description Platform

The phased implementation of the PG Dissertation Management System ensures a structured and efficient rollout of the platform. Initially, the system begins with requirement gathering and analysis, followed by designing the architecture and database schema. Next, core modules like topic selection, guide allocation, and progress monitoring are developed and integrated. This is followed by comprehensive testing to ensure accuracy and performance. Once validated, the system is deployed and training is provided to users such as students, guides, and administrators. Post-deployment, user feedback is collected for further improvement, ensuring the platform effectively streamlines dissertation tracking and enhances research quality.

7.1 Project Planning Phase

- **7.1.1 Requirement Analysis**
 - Understanding user roles, dissertation workflow, and problem areas.
- **7.1.2 Feasibility Study**

Technical and operational feasibility of automating the PG dissertation process.

- **7.1.3 Resource Allocation**

Assigning roles for development, testing, and documentation.

7.2 Design and Development Phase

- **7.2.1 System Architecture & Database Design**

Designing 3-tier architecture, ER diagrams, and schema normalization.

- **7.2.2 Frontend and Backend Development**

Creating user interfaces and implementing business logic modules.

- **7.2.3 Module Integration**

Connecting modules like topic selection, approval, monitoring, and evaluation.

7.3 Testing, Deployment & Review Phase

- **7.3.1 Testing & Bug Fixing**

Unit, integration, and system testing for all user roles.

- **7.3.2 Deployment & User Training**

Hosting the system and training guides/admins for usage.

- **7.3.3 Final Review & Documentation**

Reviewing project outcome, preparing final reports, and user manuals.

7.1 GANTT CHART Representation (Sample Weekly Timeline)

Activity	Wee k 1	Wee k 2	Wee k 3	Wee k 4	Wee k 5	Wee k 6	Wee k 7	Wee k 8	Wee k 9	Week 10
Requirement Analysis	[]	[]								
System Design		[]	[]							
Frontend Development		[]	[]	[]						
Backend & Database Implementation			[]	[]	[]					
Module Integration				[]	[]					
Testing and Bug Fixing					[]	[]		[]		
Deployment						[]	[]	[]		
Documentation & Final Review							[]	[]	[]	[]

CHAPTER-8

OUTCOMES

8.1 Improved Dissertation Topic Selection and Approval

The implementation of the PG Dissertation Management System ensures that dissertation topics are selected based on department-specific research priorities, relevance, and innovation. The system facilitates topic uniqueness by maintaining a centralized repository that prevents duplication. Ethical approvals are streamlined through a digital workflow, ensuring that research complies with institutional and ethical standards. It also considers student-to-guide ratios for balanced distribution of supervision, which enhances the overall quality of research guidance.

8.2 Efficient Monitoring and Evaluation of Research

The system introduces a structured mechanism for tracking research progress through regular report submissions, automated reminders, and supervisor feedback. PG guides are empowered to review, comment, and track milestones in real time, ensuring that students stay on track. Evaluation becomes more standardized with defined assessment criteria, timely submission checks, and integration of external reviewer feedback. In case of disapproval, the system enforces mandatory revisions, helping maintain research integrity and quality across institutions.

8.3 Centralized and Transparent Research Management

One of the most impactful outcomes is the creation of a centralized national database for all PG dissertations. This repository is equipped with advanced search and categorization features, making it easy to access dissertations by subject, year, university, or guide. The system enables universities to withhold final year results if dissertation approval is pending, encouraging timely and

serious submissions. By digitizing and centralizing the entire lifecycle—from topic selection to publication—the system enhances transparency, simplifies data access, ensures ethical compliance, and ultimately improves the standard of post-graduate research in the country.

CHAPTER-9

RESULTS AND DISCUSSIONS

9.1 Importance of PG Dissertation in Academic Fulfillment

The PG dissertation forms a crucial part of the academic requirements for the successful completion of a postgraduate degree. Typically, students select a dissertation topic during the first year of their program based on the thrust research areas of their respective departments. Under the continuous guidance of a PG supervisor, students carry out detailed research and submit their final dissertation during the second year. This research work is not only an academic exercise but also a contribution to the institution's research portfolio.

9.2 Key Components and Challenges in Dissertation Management

The entire dissertation process involves several structured steps—topic selection, ethical and departmental approval, monitoring research progress, evaluation, and possible publication of findings. Topic selection is done carefully to align with departmental research goals, maintain a balanced student-guide ratio, and prevent duplication of topics across institutions. Once approved, students are expected to maintain consistent research activity, which is monitored by the guide. Final evaluation is conducted by internal and external reviewers, and the outcomes may result in approval, rejection, or revision. If disapproved, the system has provisions to withhold the student's final year results, emphasizing the seriousness of the process.

9.3 Need for a Centralized Management System

Given the complexity of managing thousands of dissertations across institutions,

manual tracking and monitoring become impractical. Managing approvals, ethical clearances, student-guide allocations, and tracking progress manually is inefficient and error-prone. Therefore, a centralized digital PG Dissertation Management System becomes essential. Such a system automates topic registration, approval workflows, progress monitoring, and evaluation tracking. It also includes a searchable database of dissertations under various categories, making it easier for institutions and researchers to access previous work, avoid topic duplication, and encourage high-quality research outputs. This system ensures transparency, reduces administrative burden, and enhances the overall standard of post-graduate research across the country.

CHAPTER-10

CONCLUSION

The PG Dissertation Management System addresses the growing need for a structured, transparent, and centralized approach to managing post-graduate research activities. As the dissertation is a partial but vital requirement for the completion of any PG program, ensuring its quality, timely completion, and ethical compliance is crucial. Traditionally, the management of dissertation processes—from topic selection to final evaluation—has been manual and institution-specific, leading to inefficiencies, topic duplication, and inconsistent evaluation standards.

This report has highlighted how a digital system can streamline various stages of the dissertation lifecycle, including topic approval, ethical clearance, guide allocation, progress monitoring, evaluation, publication tracking, and final result processing. The centralized database not only prevents duplication but also promotes access to quality research, improving academic standards across universities.

By implementing a PG Dissertation Management System, institutions can enhance research quality, reduce administrative overhead, ensure compliance with ethical standards, and create a national-level repository of academic work. This will ultimately support the larger goal of advancing higher education and research excellence in the country.

Moreover, the system promotes accountability and ensures uniformity in the assessment process. Students are encouraged to complete their research work in a timely manner, while faculty members can monitor progress and provide feedback more effectively. With real-time tracking and automated alerts, delays in dissertation submission and evaluation can be minimized. The system can also generate analytical reports to help academic councils and research departments make informed decisions regarding future research directions. By digitizing and automating these critical processes, the PG Dissertation Management System not only fosters academic integrity but also builds a sustainable framework for managing research across diverse educational institutions.

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APPENDIX-A

PSUEDOCODE

System Entry – Login and Registration

MODULE LoginSystem

 DISPLAY login form (username, password)

 IF form submitted THEN

 FETCH input credentials

 QUERY database for user with given credentials

 IF user found THEN

 REDIRECT to dashboard based on role (Student/Faculty/Admin)

 ELSE

 DISPLAY "Invalid Credentials"

 ENDIF

 ENDIF

END MODULE

□ Student Dashboard

MODULE StudentDashboard

 DISPLAY dashboard options:

- Submit Project Idea
- Upload Document
- Book Meeting with Guide
- Request Feedback
- View Dissertation Progress
- Chat with AI Assistant

AWAIT user action

SWITCH user selection

```
CASE "Submit Project Idea":  
    CALL SubmitProjectIdea()  
CASE "Upload Document":  
    CALL UploadDocument()  
CASE "Book Meeting":  
    CALL BookMeeting()  
CASE "Request Feedback":  
    CALL RequestFeedback()  
CASE "View Progress":  
    CALL ViewDissertationStatus()  
CASE "Chat with AI":  
    REDIRECT to Chatbot Interface  
ENDSWITCH  
END MODULE
```

Faculty Dashboard

```
MODULE FacultyDashboard  
DISPLAY options:  
    - View Assigned Students  
    - Provide Feedback  
    - Review Project Submissions  
    - Schedule Meetings
```

SWITCH selection

```
CASE "View Students":  
    FETCH list from database  
CASE "Provide Feedback":  
    CALL ProvideFeedback()  
CASE "Review Submissions":
```

```
FETCH and display documents
CASE "Schedule Meetings":
    CALL ScheduleMeeting()
ENDSWITCH
END MODULE
```

```
MODULE ProvideFeedback
    SELECT student
    ENTER feedback text
    SAVE feedback to database
    DISPLAY "Feedback Sent"
END MODULE
```

```
Dissertation Status Tracker
MODULE ViewDissertationStatus
    FETCH progress status (proposal, data collection, review, submission)
    DISPLAY using progress bars
    FETCH upcoming deadlines
    DISPLAY deadline list
END MODULE
```

Meeting Scheduler

```
MODULE BookMeeting
    DISPLAY form (Date, Time, Google Meet ID)
    IF form submitted THEN
```

```
VALIDATE inputs
CHECK if slot is available
IF available THEN
    SAVE meeting to database
    DISPLAY "Meeting Scheduled"
ELSE
    DISPLAY "Slot Unavailable"
ENDIF
ENDIF
END MODULE
```

APPENDIX-B

SCREENSHOTS

Complete Your Job Profile

Follow the steps to create a professional profile

0%

Step 1: Personal Information

Full Name
Enter your full name

Email
Enter your email address

Phone Number
Enter your phone number

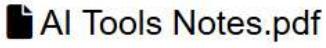
Next

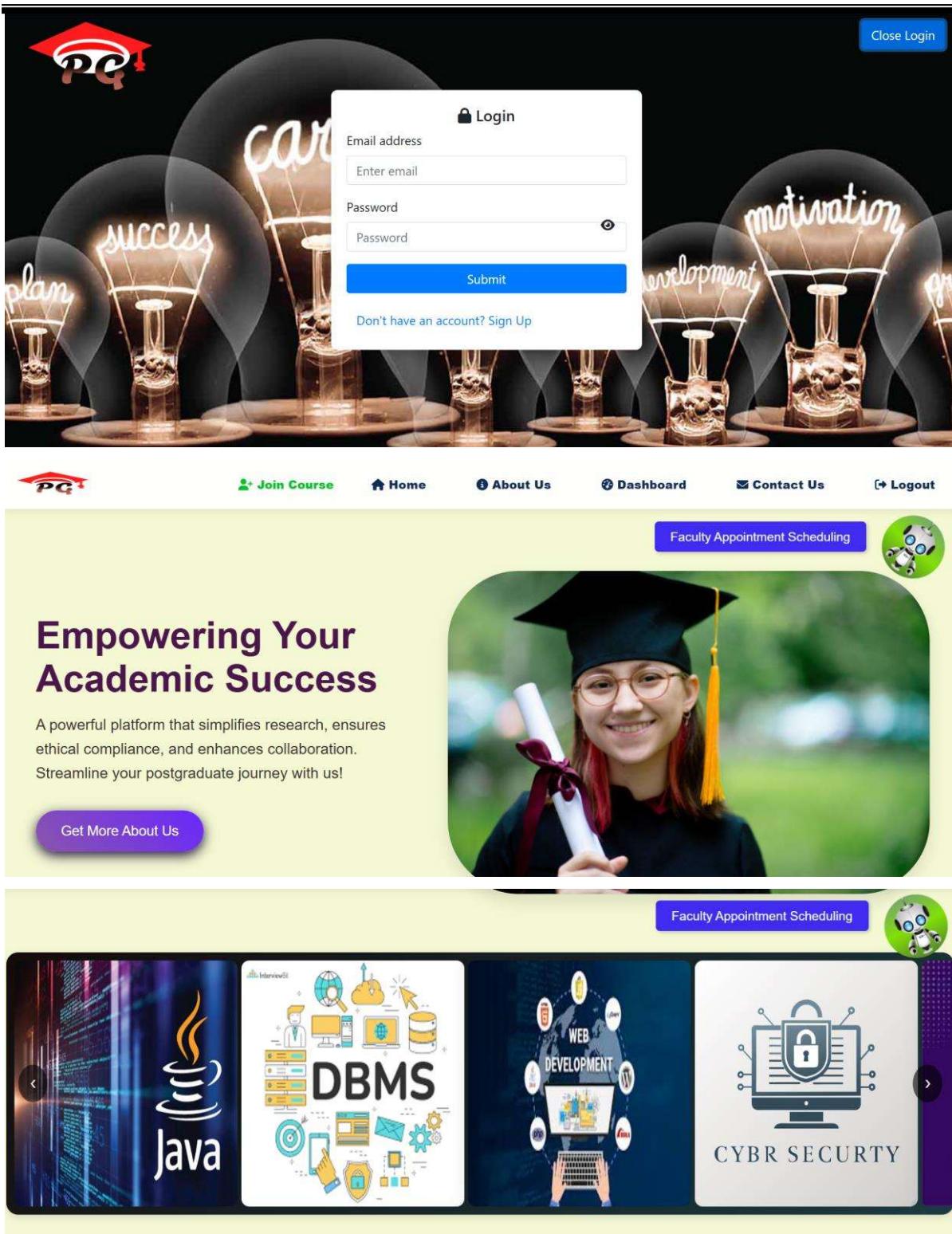


The screenshot shows a student interface for managing reservations. At the top left is a "Student" button. Below it is a calendar for May 2025, with the 6th highlighted in orange. To the right is a larger grid for May 2025, with columns for dates from 5/4/2025 to 5/10/2025. Rows represent time slots from 9 AM to 1 PM. The grid uses color coding: orange for unavailable slots (e.g., 5/6/2025, 9 AM), blue for available slots (e.g., 5/6/2025, 10 AM), green for slots with confirmed appointments (e.g., 5/6/2025, 11 AM), and red for slots with waiting appointments (e.g., 5/6/2025, 12 PM). Below the May grid is a smaller one for June 2025.

File Upload & Management

No file chosen

 AI Tools Notes.pdf



Dashboard

- Home
- Profile
- Submit Project Idea
- Topic Recommendation
- Meeting with Guide
- Upload Document

[Logout](#)

1000
Total Students [Try it out!](#)

200
Total Guides [Try it out!](#)

50
Total Publications

Dissertation Progress

Proposal Submission: **Completed**

Data Collection: **Pending**

Final Submission: **Pending**

Upcoming Deadlines

- Proposal Review: **April 30, 2025**
- Draft Submission: **May 10, 2025**
- Final Submission: **June 30, 2025**

Book the meeting slot

dd-mm-yyyy AM/PM
[Book the slot](#)

Date	Time	Link
------	------	------

Dashboard

- Home
- Profile
- Submit Project Idea
- Topic Recommendation
- Meeting with Guide
- Upload Document

[Logout](#)

Upload Project Details

Project Title:

Project Description:

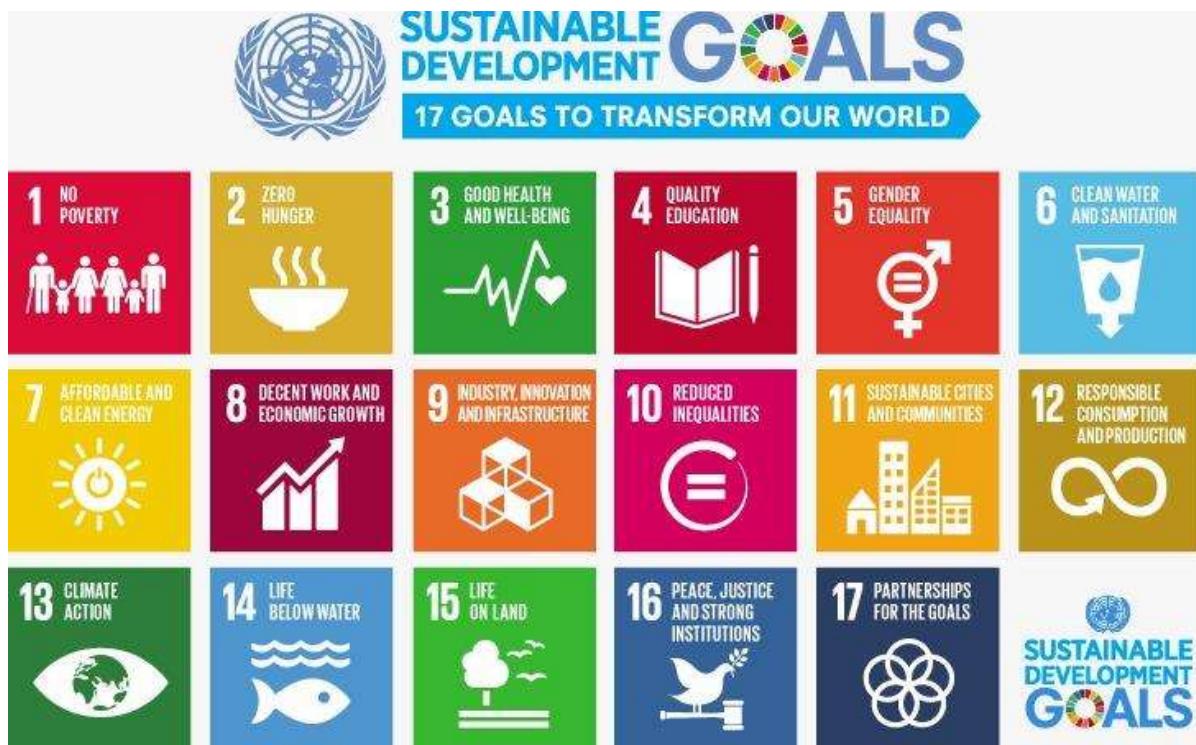
Project Type/Category:

Select Category:

Select a Guide:

[Submit](#)

Mapping the Project with the Sustainable Development Goals (SDGs)



Project Overview: PG Dissertation Management System

The **Postgraduate (PG) dissertation** is a partial requirement for the successful completion of a PG degree. Typically, students select a dissertation topic in the **first year** of their postgraduate program. Under the **supervision of an assigned PG guide**, students carry out research and submit their completed dissertation during the final year for evaluation.

Given the increasing volume of PG research nationwide, managing and monitoring all aspects of the dissertation lifecycle has become a **complex and challenging task**. Hence, there is a pressing need for a **dedicated digital solution** that can streamline the entire process and **enhance the quality and impact of research**.

Key Steps in the PG Dissertation Process

1. Selection of Topics

- a. Aligned with the thrust areas of research specific to each department.
- b. Ensuring an optimal **student-guide ratio**.
- c. Preventing **duplication** of dissertation topics.

2. Approvals and Ethical Clearance

- a. Review and approval of selected topics by departmental or institutional research committees.
- b. Clearance of ethical concerns, particularly for studies involving human or animal subjects.

3. Monitoring Research Progress

- a. Periodic evaluation by guides and departmental committees.
- b. Documentation of progress reports, meeting summaries, and feedback.

4. Evaluation of Dissertation

- a. Submission, internal and external evaluation, and grading of the dissertation.
- b. Ensuring quality and originality through plagiarism checks.

5. Publication

- a. Encouraging students to publish findings in reputed journals or

conferences.

- b. Recognition of impactful research contributing to academic or societal advancement.

6. Database Maintenance

- a. Centralized repository of all dissertations categorized by department, year, research area, and guide.
- b. Implementation of a **searchable interface** for academic reference and collaboration.

7. Result Withholding

- a. Withholding of final year results in case of **non-submission or disapproval** of the PG dissertation.

Need for a Dissertation Management Application

To address the complexities and streamline the above steps, a comprehensive software solution is essential. The **PG Dissertation Management System** will:

- Automate workflows from topic selection to evaluation.
- Improve transparency and communication between students, guides, and evaluators.
- Enable real-time tracking and reporting.
- Ensure compliance with academic and ethical standards.

Mapping the Project with the Sustainable Development Goals (SDGs)

The proposed system aligns with the following **UN Sustainable Development**

Goals (SDGs):

- **SDG 4: Quality Education**
 - Promotes inclusive and equitable quality education by supporting academic research.
 - Facilitates knowledge dissemination and capacity building through research publications.
- **SDG 9: Industry, Innovation, and Infrastructure**
 - Encourages innovation by supporting original research and efficient management systems.
 - Enhances research infrastructure in academic institutions.
- **SDG 16: Peace, Justice, and Strong Institutions**
 - Builds effective, accountable, and transparent institutions through improved academic governance.

APPENDIX-C

ENCLOSURES

Pg dissertation Management System Description.

1 Dr.N Thrimoorthy,2.Vijeth HUGAR,3.BH PavanKumar,4.Sumeeth Sangat

1. CSE Department & Presidency University
2. CSE Department & Presidency University
3. CSE Department & Presidency University
4. CSE Department & Presidency University

Abstract - Postgraduate (PG) dissertation is a crucial component of a PG degree, reflecting a student's ability to conduct independent research under guided supervision. The dissertation process begins in the first year with topic selection based on departmental research thrust areas, maintaining student-guide ratio, and ensuring non-duplication of topics. It continues with ethical approvals, monitoring of research progress, evaluation, and potential publication of findings. Managing these aspects across multiple institutions poses significant administrative and quality assurance challenges. To address this, the proposed project aims to develop a centralized and automated application to manage the entire PG dissertation lifecycle. The application will support topic selection with duplication checks, guide allocation, ethical clearance tracking, progress monitoring, evaluation management, and final submission tracking. It will include a searchable database of all dissertations categorized by department, topic, and year, and integrate mechanisms to hold final year results in case of non-compliance or disapproval. This system ensures transparency, improves efficiency, and enhances the quality of research output. By digitizing and streamlining dissertation management at institutional and national levels, the

application will significantly reduce administrative overhead and uphold academic standards. Ultimately, the tool will serve as a valuable resource for students, guides, evaluators, and academic administrators.

KeyWords : Dissertation Management, Topic Duplication Check, Ethical Clearance, Progress Monitoring, Academic Transparency.

1.INTRODUCTION

Postgraduate (PG) dissertation is a partial requirement for the successful completion of a PG degree. It involves independent research conducted by students under the supervision of a PG guide. The dissertation process begins in the first year with the selection of topics based on the thrust ideas of research in respective departments. This also includes maintaining an appropriate student-guide ratio and ensuring there is no duplication of topics. After topic approval, students must address necessary ethical issues and secure clearance from the relevant ethics committee.

Throughout the research period, regular monitoring of research progress is essential to ensure timely completion and adherence to academic standards. The final year includes evaluation of the dissertation and, if applicable, publication of significant findings in academic journals. Additionally, a searchable database is required to maintain records of all dissertations categorized by department, year, and topic. The system should also support the withholding of final year university results in case of dissertation disapproval or non-compliance.

Managing and tracking these aspects across multiple institutions is a major challenge. Therefore, the development of a centralized and automated application is crucial to streamline the process, improve research quality, and enhance academic efficiency across institutions.

2.RESEARCH METHODOLOGY

The development of a centralized and automated application for PG dissertation management will follow a systematic research methodology comprising requirement analysis, system design, development, testing, and evaluation. The research begins with a qualitative study involving data collection through structured interviews and questionnaires from stakeholders including PG students, guides, evaluators, and academic administrators across multiple institutions. This step identifies key pain points, functional needs, and institutional variations in dissertation handling.

Next, a comparative analysis of existing systems, if any, will be conducted to

understand their limitations and gather insights for feature enhancement. Based on this analysis, a requirements specification document will be prepared outlining functional modules such as topic selection, duplication check, guide allocation, ethical clearance tracking, progress monitoring, evaluation scheduling, result linking, and database search features.

The system will be designed using modular architecture, ensuring scalability and maintainability. The development will follow the Agile methodology, allowing iterative progress, stakeholder feedback, and continuous improvement. Technologies such as a web-based frontend, centralized database, and secure login system will be used to ensure accessibility and data integrity.

Once developed, the application will undergo unit testing, integration testing, and user acceptance testing (UAT) in pilot institutions. Feedback will be used to refine the application before broader deployment. Finally, the effectiveness of the application will be evaluated by measuring improvements in administrative efficiency, reduction in duplication, compliance tracking, and user satisfaction through post-implementation surveys and performance analytics.

This methodology ensures a user-centric, scalable, and efficient solution for managing PG dissertations nationwide.

3.CONCLUSIONS

The PG dissertation is a critical component of postgraduate education, reflecting a student's research capabilities and academic rigor. Managing its various stages—from topic selection and ethical approvals to progress monitoring, evaluation, and publication—requires a structured and transparent approach. Given the complexities involved and the administrative burden on institutions, especially at a national scale, a centralized and automated application is essential. Such a system would streamline the entire dissertation lifecycle, ensuring proper guide allocation, avoiding topic duplication, tracking compliance, and maintaining a comprehensive searchable database. Moreover, linking dissertation approval with the final result declaration would reinforce academic discipline and accountability. By digitizing and automating these processes, institutions can enhance research quality, reduce manual workload, and maintain uniform academic standards. Ultimately, this application would serve as a vital tool for students, guides, evaluators, and administrators, supporting the effective management and continuous improvement of postgraduate research programs.

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