



TRIAD – A PROJECT MANAGEMENT SYSTEM WITH BUILT-IN PLAGIARISM DETECTION AND MEETING FACILITY COORDINATION

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Abstract—Efficient project management is indispensable in today's digital age, especially in educational institutions. This paper introduces TRIAD, a comprehensive project management system designed specifically for higher education. TRIAD integrates project planning, task assignment, progress tracking, and communication features tailored for academia. Moreover, it incorporates advanced plagiarism detection algorithms and meeting facility coordination to ensure academic integrity and streamline collaboration. This paper outlines the system's architecture, functionalities, related works, proposed enhancements, and future scope, highlighting its transformative potential in revolutionizing education and preparing students for the professional world.

Keywords - Project Management system, Plagiarism Detection, Meeting Facility Coordination, Academic Integrity, Higher Education.

I. INTRODUCTION

In today's rapidly evolving educational landscape, the effective management of academic projects is paramount to fostering a dynamic and engaging learning environment within colleges and universities. The complexities associated with coordinated and overseeing a multitude of student projects each with its unique requirements and timelines, have led to the growing adoption of College Project Management System. These systems, specifically tailored to the academic context, offer a comprehensive and structured approach to project creation, assignment, tracking and assessment. They not only streamline collaborative processes but also play a pivotal role in facilitating collaboration, enhancing communication and uphold academic integrity. This introduction provides a transformative role that a College Project Management System plays in higher education sector. It sets the stage for deeper exploration of the components, benefits, challenges and innovations within this increasingly vital domain. In an era where innovation and efficiency are essential to the educational experience, a robust College Project Management System emerges as an indispensable tool for colleges and universities striving to equip their students and faculty with the resources necessary for academic excellence.

II. PROBLEM STATEMENT

The current college project management systems face multiple challenges, including time-consuming manual processes

that result in delays and errors. Inefficient resource allocation, disrupts project timelines and budgets. Data security concerns compromise the confidentiality of sensitive project information. Additionally, ineffective meeting coordination impedes real-time discussions and decision-making. This problem statement highlights the main challenges that institutions face with traditional College Project Management System and to overcome these challenges there is a pressing need for an integrated College Project Management System. This advanced system will incorporate robust project management functionalities, plagiarism detection mechanism and efficient meeting coordination features. By unifying these streamline components, the system will streamline project execution, promote collaboration, enhance data security and uphold academic integrity. It represents a transformative solution for higher education institutions empowering them to efficiently manage projects while highest standard of quality and security.

III. LITERATURE SURVEY

Project management systems have evolved from manual methods to digital platforms that streamline project lifecycles. The college project is a tedious, amazingly exhaustive efforts, with a central impact in various groups' work and results. Online task coordination, observing, and management system offer an answer for mechanizing project management functionalities, including data management, meetings arrangement, and group cooperation, which incorporates all aspects of the project management measure.

Here is the literature survey for some of the recent works in this field: 1."Student Project Management System" (2021)

This research paper provides a comprehensive overview of challenges in software project management and how technology, particularly web-based project management systems, can offer solutions. It also emphasizes the significance of organized knowledge transfer and version control in achieving success in software projects[1].

2."Evaluating the Effectiveness of Plagiarism Detection Tools for Academic Institutions" (2019)

This research paper presents an evaluation of the effectiveness of commercial and open-source plagiarism

detection tools commonly used in academic institutions. The study compares the accuracy of these tools in identifying instances of plagiarism in student assignments, research papers, and other academic documents[2].

3."Web Based Project Collaboration, Monitoring and Management System"(ICTer)-109-155/ 2014 IEEE.

In this paper the focus is on design and implementation of a web-based platform for project collaboration. This allows users to work on projects, share resources, and communicate regardless of geographical boundaries.The system probably includes monitoring capabilities, enabling project managers and team members to track the progress of tasks, deadlines, and milestones[3].

4."Project Management System" (2017)

This paper provides a comprehensive overview of various aspects related to project management and software development, highlighting the significance of efficient knowledge management, technology-driven project management systems, and the pervasive role of software in contemporary society[4].

5. Design and Development of a University Portal for the Management of Final Year Undergraduate Projects (A. Abdulkareem, A. Adeyinka, U.I. Dike, 2013)

Abdulkareem presents the design and development of a university portal aimed at managing final year undergraduate projects. The portal likely offers functionalities to facilitate the coordination, tracking, and management of undergraduate projects, potentially improving efficiency and organization within the academic setting[5].

IV. PROPOSED WORK

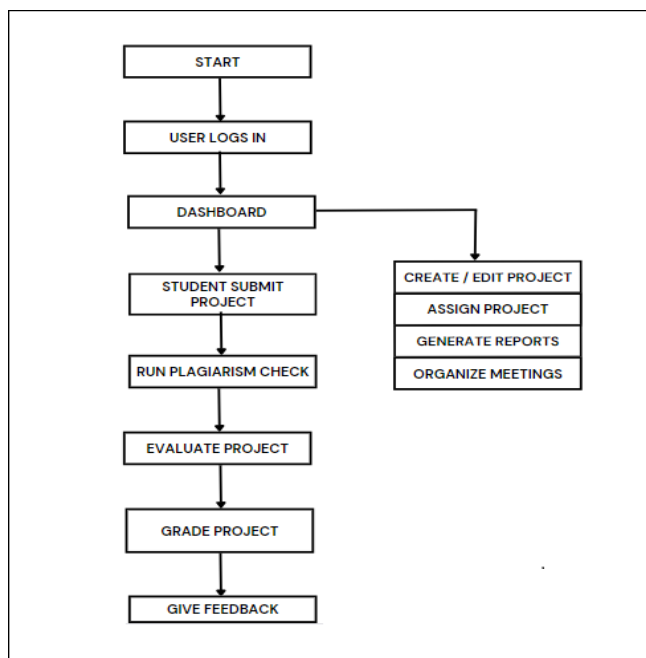


Fig. 1. Flowchart

The proposed College Project Management System with plagiarism detection and a meeting facility addresses critical challenges in higher education institutions. It enhances project management, ensures academic integrity, and facilitates effective collaboration. By implementing this system, our institution can achieve improved project outcomes, enhanced academic standards, and greater efficiency in academic and research endeavours .

A) Project Management :

1. User profiles : The system will have different distinct user profile for student, faculty and administrator each with specific permissions and capabilities.
2. Task assignment : Faculty can assign task to the students, set deadlines and track progress.
3. Resource allocation : System will facilitate efficient allocation of resources including classrooms, lab, equipment and funding.
4. Progress Tracking : Real Time dashboards and reports will enable stakeholders to monitor progress.

B) Plagiarism Detection :

1. Upload Documents : Student will submit project reports and assignment through the system.
2. Plagiarism scanning : The system will integrate with plagiarism software to scan the document and detect potential plagiarism.
3. Plagiarism Report : Users will receive detailed plagiarism report highlighting any instances of copied elements.
4. Academic Integrity : Plagiarism detection report will detect academic honesty and uphold institutional integrity.

Sr. No.	Research / Technical paper	Techniques Used	Process	Advantages
1.	Student Project Management System (2021) [1]	It doesn't focus on a specific technique. Instead, it discusses various aspects of software and web-based project management systems, knowledge control, and other relevant topics.	Develop a system to manage the project that recognizes all work done by the organizer or guide of the project.	Emphasizes the significance of organized knowledge transfer and version control in achieving success in software projects
2.	Project Management System (2017) [2]	Hashmaps are used for automatic allocation of guide to the groups of similar domain	Registration of students on the portal and assign guide post formation of the groups	It provide centralized data, up-to-date status reporting, easy to use, backups.
3.	Web Based Project Collaboration, Monitoring and Management System (2014) [3]	Design principles and techniques are used to create an intuitive and user-friendly interface	It includes monitoring capabilities, enabling project managers and team members to track the progress of tasks	This allows users to work on projects, share resources, and communicate regardless of geographical boundaries
4.	Evaluating the Effectiveness of Plagiarism Detection Tools for Academic Institutions (2019) [4]	Turnitin is used for Plagiarism Detection and evaluation of the reports	Evaluation of the effectiveness of commercial and open-source plagiarism detection tools	Compare the accuracy of tools identifying instances of plagiarism
5.	The Role of College Project Management Systems in Preparing Students for Industry (2017) [5]	Work breakdown structure is used to prepare the progress chart of the student	Discuss how to align with industry-standard project management practices and provide students with practical skills and experiences	It includes feedback from alumni who attribute their professional success to their exposure to PMS during their college education.

Table 1. Literature Survey.

C) Meeting Facility:

1. Meeting Scheduling : Users can schedule meeting, set agendas and invite participants.
2. Meeting Records: Meeting minutes, recordings and documents will be stored in the system.
3. Automated Notification: Reminders and notifications will keep participants informed about the upcoming meetings.

V. RESULTS AND ANALYSIS



Fig. 2. Login page

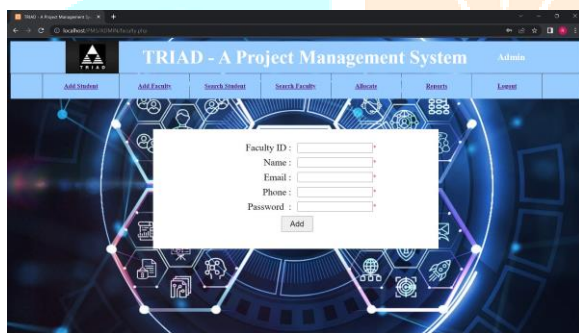


Fig. 3. Add Faculty

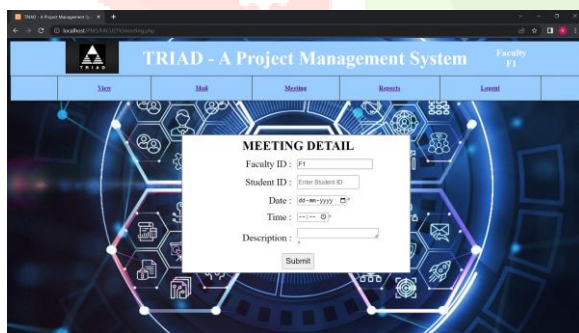


Fig. 4. Meeting Scheduling

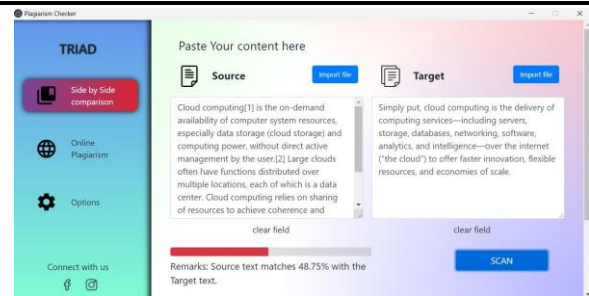


Fig. 5. Report of Comparison



Fig. 6. Report of Plagiarism

VI. CONCLUSION AND FUTURE SCOPE

TRIAD represents a transformative approach to education, equipping students with the skills and mindset needed to thrive in today's fast-paced world. By integrating project management principles with academic learning, it prepares students to become ethical, innovative, and socially responsible professionals. With its focus on interdisciplinary collaboration and emerging technologies, it bridges the gap between academia and industry, ensuring graduates are well-prepared to meet the challenges of the future. As TRIAD continues to evolve and expand its scope, it holds the promise of shaping the next generation of leaders and problem-solvers, driving positive change in society.

The future scope of TRIAD appears promising, with several key areas identified for further exploration and development:

1. Expanding applicability across various network architectures to ensure seamless integration with different educational platforms.
2. Enhancing integration with Learning Management Systems (LMS) to streamline student engagement and project management processes.
3. Implementing mechanisms to track and assess student skills and competencies, providing personalized learning experiences. Strengthening collaborations with industry partners to facilitate real-world projects and internships for students.
4. Supporting research initiatives by providing resources and mentorship to students and faculty, fostering innovation and academic growth.

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