

Campus Connect: A Digital Solution for Academic and Event Management System

Saniya Bhoir^{1,*}, Tanuja Gharat¹, Vaishanvi patil¹, Harsh Mhatre¹, Dnyanoba Chitre²

Abstract

This paper introduces campus connect a unified digital system developed to improve the Management and a and institutional events the platform is designed with adaptability in mind allowing it to function effectively across various educational settings such as schools colleges and universities its main aim is to provide a simple and accessible interface that enables all users regardless of technical expertise to interact with the system comfortably the platform allows students to create personal profiles participate in courses and campus events and access educational resources at any time it also keeps users informed through instant updates and notifications related to their academic and extracurricular engagements this continuous flow of information helps enhance participation and awareness within the institution for faculty and administrative staff Campus Connect offers efficient tools to plan and oversee academic schedules and organize events it simplifies tasks such as sharing study materials monitoring student involvement and maintaining digital attendance records in addition the system supports automatic certificate generation for participants reducing manual workload and improving overall efficiency the solution also provides a structured approach to storing and managing academic content making it easily accessible whenever required by removing dependency on physical processes and time constraints the platform creates a more flexible and connected learning environment overall Campus Connect serves as an effective digital solution that promotes better organization communication and engagement within educational institutions. It reduces repetitive manual work by supporting automated workflows such as participant registration, attendance logging, certificate generation, and record maintenance. In addition, the platform introduces a dual-engagement model, a unique concept that links academic activity with campus involvement, enabling institutions to observe student development in a more holistic manner. By integrating these dimensions, Campus Connect supports a smarter, paperless, and more collaborative educational environment that improves efficiency, transparency, and institutional engagement.

Keyword: Campus Connect, digital campus platform, academic management system, event management system, dual-engagement model, institutional communication, academic automation, student engagement

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INTRODUCTION

Web technology has become an essential component of modern institutional communication. It allows information to be shared quickly, accessed easily, and managed more efficiently than traditional methods [1, 2]. In educational institutions, this is important because academic updates and campus event information need to reach users without delay. Existing studies show that centralized event systems improve user access, reduce repeated manual work, and make coordination easier [3]. Research has also highlighted that automation and real-time communication enhance the performance of

modern event platforms [4]. Therefore, Campus Connect is proposed as an integrated platform that combines academic management and event coordination in a single digital system to create a more efficient and connected campus environment.

The main objectives of this work are:

- To centralize academic and event-related operations
- To improve communication through real-time notifications.
- To simplify event planning and participant management.
- To reduce manual work through automation.

SYSTEM DESCRIPTION

The system is built around a role-based structure with three primary user groups: students, faculty, and administrators. Students use the platform to maintain personal profiles, check academic schedules, access study materials, join campus events, and receive real-time updates. Faculty members can manage class-related information, upload content, record attendance, and coordinate student participation in academic or institutional activities. Administrators are responsible for broader system control, including managing users, approving events, maintaining records and supervising institutional operations. This layered access approach ensures that each user interacts with the platform in a secure and relevant manner [3]. Campus Connect operates as a centralized digital workspace. It stores academic and event-related information in one system and presents it on a common dashboard. This design helps users avoid switching between different channels for notices, course content, and event communications. The platform also includes automation features, such as online registration, attendance updates, certificate preparation, and structured digital storage. Studies on intelligent event planning systems support the use of automation and real-time communication as effective methods for reducing administrative burden and improving service quality [4]. Another important aspect of the system is its adaptability to different environments. The platform can be adjusted for different institutional settings, making it useful for schools, colleges, and universities to implement. It is designed with simple navigation and accessible functions so that both technical and non-technical users can operate it without difficulty. By integrating academic coordination and campus participation into a single digital framework, Campus Connect promotes faster communication, better record handling, and a more connected institutional experience (Figure 1) [1, 4].

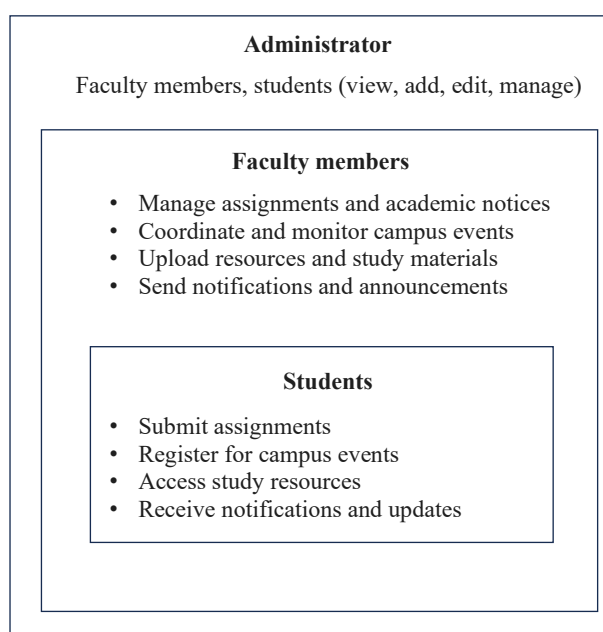


Figure 1. Diagram of campus connect.

SYSTEM RELATED WORK

In recent years, educational institutions have increasingly adopted digital platforms to simplify academic coordination and campus events. Earlier systems were mainly developed to manage individual functions such as student records, attendance, timetable generation, or event announcements. Although these applications have improved administrative efficiency, most of them operate as isolated solutions and lack a unified structure. This separation often creates communication gaps between academic departments, faculty members, students, and event organizers.

Review of Theories and Concepts of Various Scholars

Many scholars have explained that digital systems in education are useful when they make communication and management easier for everyone in an institution. Instead of using separate methods for notices, assignments, attendance, and events, a single platform can help users access everything in one location [3]. Researchers also highlight that a system should be easy to use, clear, and helpful for students, teachers, and administrators. Another important idea is student engagement, where timely updates and easy participation in campus activities can improve involvement and connection with the institution. These concepts support the need for a platform such as Campus Connect.

Review of Previous Research Findings

Earlier studies have shown that academic management systems are helpful for handling tasks such as attendance, study materials, student records, and announcements. Similarly, event management systems support scheduling, registration, and communication for campus programs. However [3, 1], past research also shows that these systems often work separately, which can create confusion and communication gaps. Many findings suggest that users prefer a simple and combined platform that manages both academic and event-related activities together. Based on this gap, Campus Connect is proposed as a more practical and connected solution for educational institutions (Figure 2).

TECHNOLOGY STACK

Code Editor

The project was developed using Visual Studio Code. It is a simple and powerful editor that supports several programming languages. It provides useful features such as auto-completion, debugging, and extensions. Tools such as Live Server help test the project in real time. This makes coding faster and more organized.

Frontend

For the frontend part of Campus Connect, we used basic web technologies like HTML, CSS, and JavaScript along with React. This helps create a clean and interactive user interface for students, faculty, and admin users. React makes it easier to build reusable components and improves the overall performance of the system [2]. The design is made responsive so it can work properly on different devices, such as mobile and desktop. Overall, the frontend focuses on making the system simple and user-friendly.

Backend (Server Side)

The backend of the system was developed using Node.js and Express.js. This part handles all the main operations, such as user login, event management, and data processing. It connects the front end to the database and ensures that all requests are handled properly. The backend also helps manage different user roles, such as admin, student, and faculty. It plays an important role in ensuring that the system is secure and efficient.

Database

We used MongoDB to store the data. It stores information such as student details, course data, and event records in a structured manner. MongoDB is flexible and easy to use, especially for web applications.

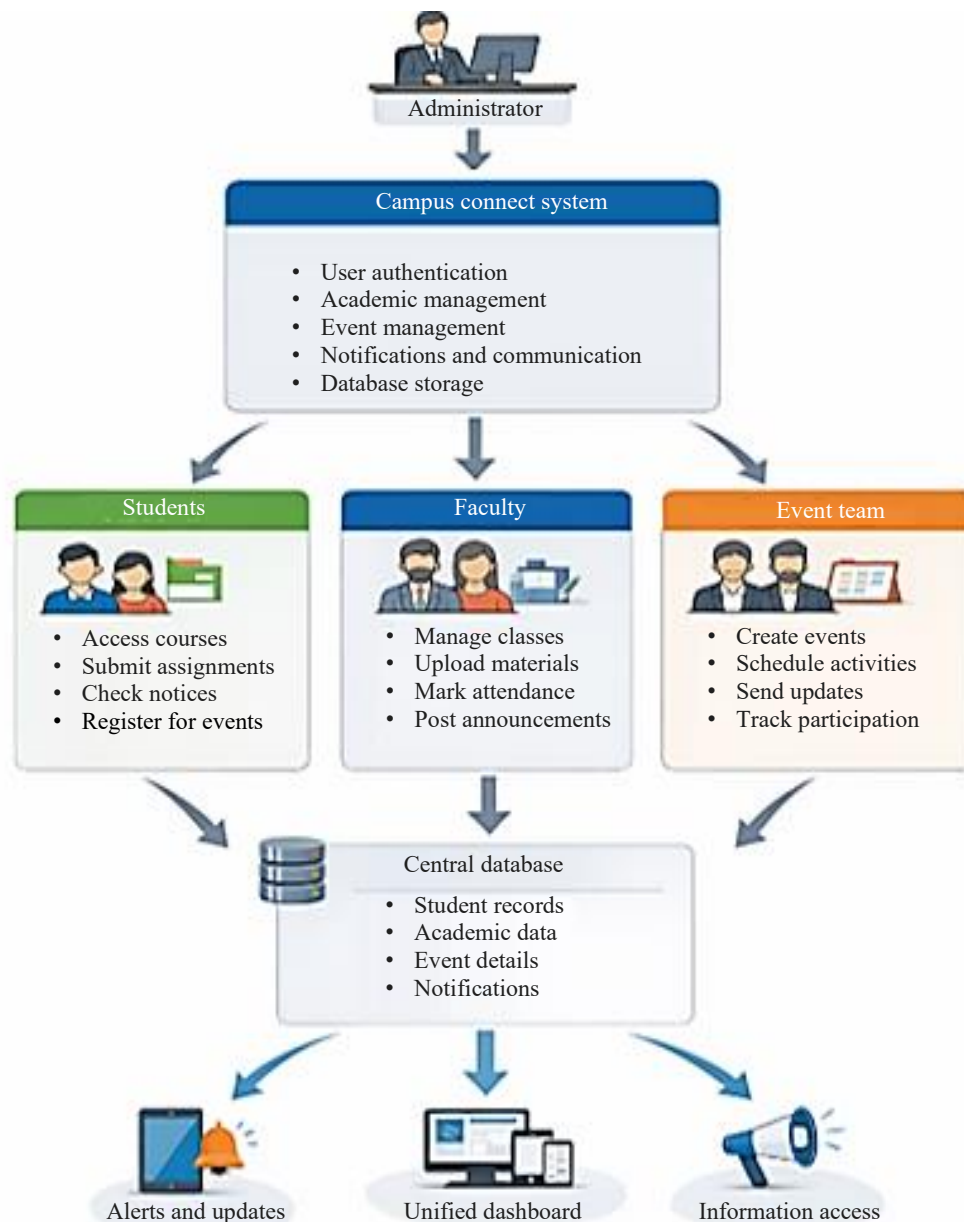


Figure 2. System workflow.

METHODOLOGY

The development of Campus Connect followed a step-by-step approach to build a platform that could manage both academic and event-related activities in one system [5]. First, the basic problems in existing college management methods were identified, such as scattered communication, manual updates, and the use of separate platforms for academic and event management. Based on these issues, the main requirements of students, faculty, and administrators were examined.

After requirement collection, the system was planned with different modules, such as user login, academic management, event management, notifications, and database handling. The platform was designed to provide easy access to notices, assignments, schedules, study materials, and event registration. A simple interface was considered so that all users could use the system without difficulty. Finally, the proposed system structure is organized to ensure proper data flow, secure storage, and smooth communication among users [6, 7]. The overall methodology focuses on creating a unified, practical, and user-friendly solution for educational institutions (Figure 3).

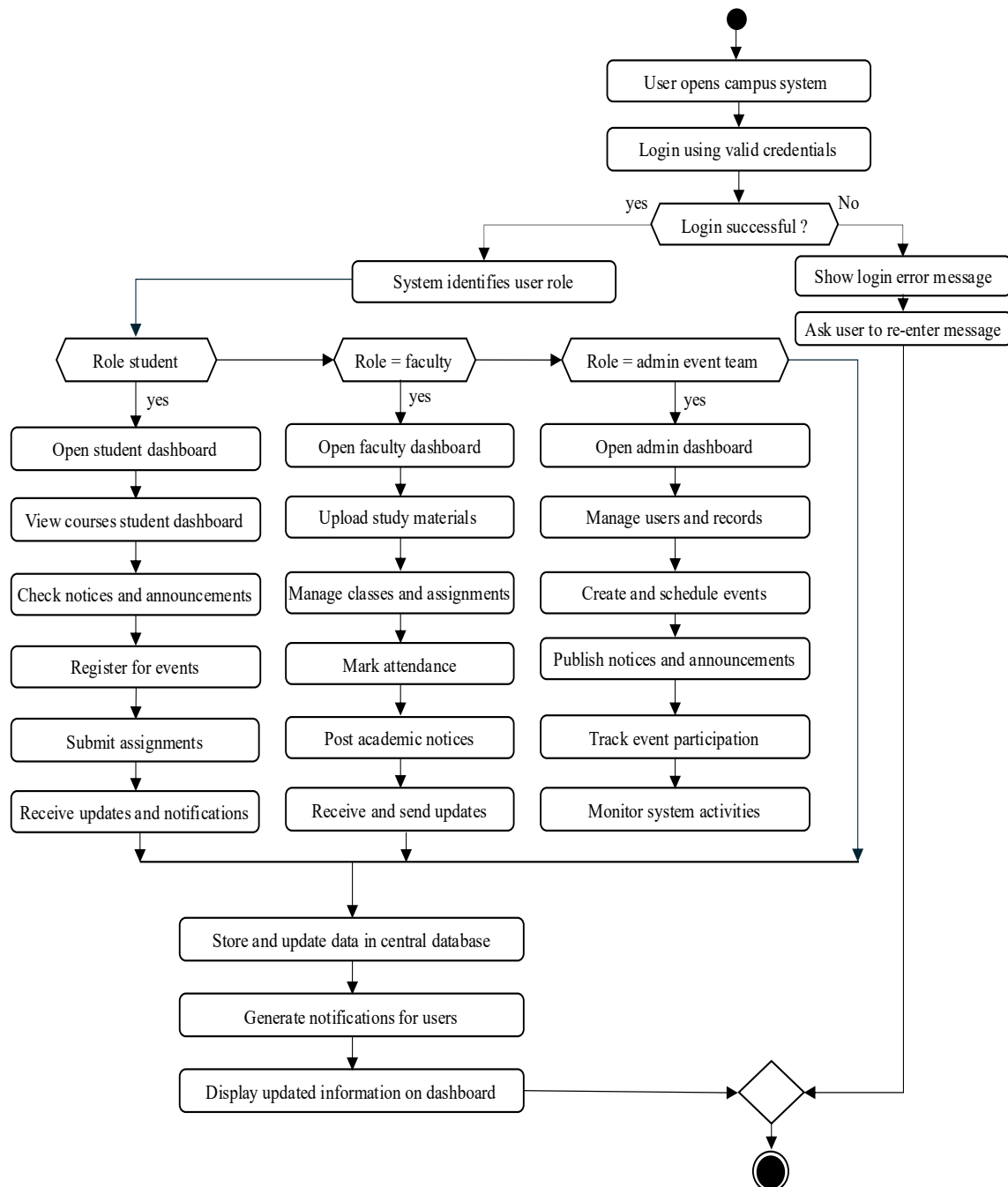


Figure 3. Campus connect flowchart.

MODULE DESCRIPTION

Admin Module

The Admin Module acts as the main control unit of Campus Connect. It is responsible for managing and maintaining the platform's overall activities. Through this module, the administrator can add, update, and remove important information related to students, faculty members, courses, academic records, announcements, and campus events. This helps keep the system organized and ensures that all data remain correct and up to date [8]. In the Campus Connect project, the admin also manages event details, schedules announcements, verifies user records, and controls access to various system functions. This module is usually handled by the Head of Department, Principal, or other authorized staff members responsible for institutional management [9]. By using the Admin Module, the institution can monitor both academic and event-related operations from one central platform.

The admin dashboard in Campus Connect provides a centralized platform to manage students, faculty, and course information efficiently. It allows administrators to add and update records while also displaying analytics such as total student and faculty count. This improves data management and decision-making, as shown in (Figure 4).

Figure 5 allows operations such as adding new students, updating existing details, and deleting records as required. This functionality ensures accurate data management and simplifies the tasks.

Faculty Module

The Faculty Module in Campus Connect helps teachers handle their daily academic work in a simple and organized way. Using this module, faculty members can upload notes, share study materials, and assign assignments to students. It also allows teachers to manage subject details and keep students informed about important updates [10]. Teachers can record attendance, check submitted assignments, and provide the necessary instructions or feedback. They can also post notices so that students can stay updated with class activities and schedules. This reduces the need for manual communication and saves time. Overall, the Faculty Module makes it easier for teachers to manage their responsibilities and stay connected with their students through a single platform.

Figure 6 shows that faculty members can upload study materials, such as notes and assignments, making it easy for students to access resources at any time. They can also review student submissions within the given deadlines and assign marks accordingly, which reduces manual checking efforts and saves time for the instructors.

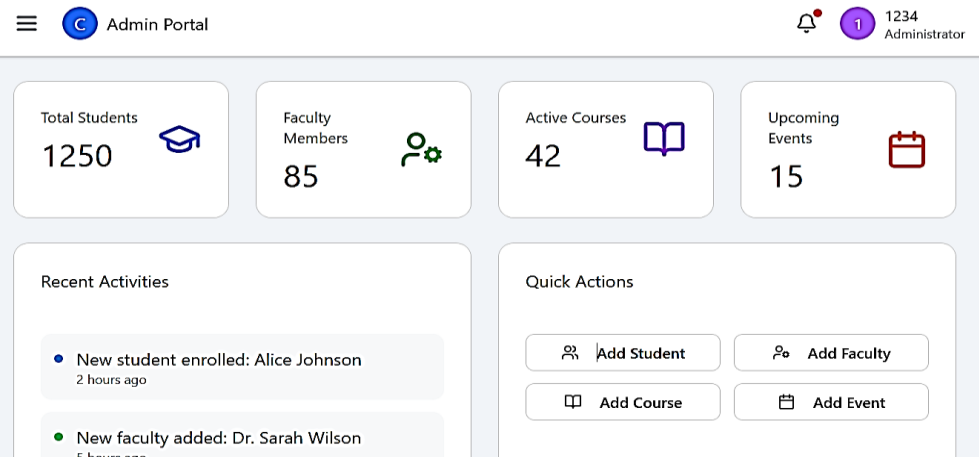


Figure 4. Administrator dashboard.

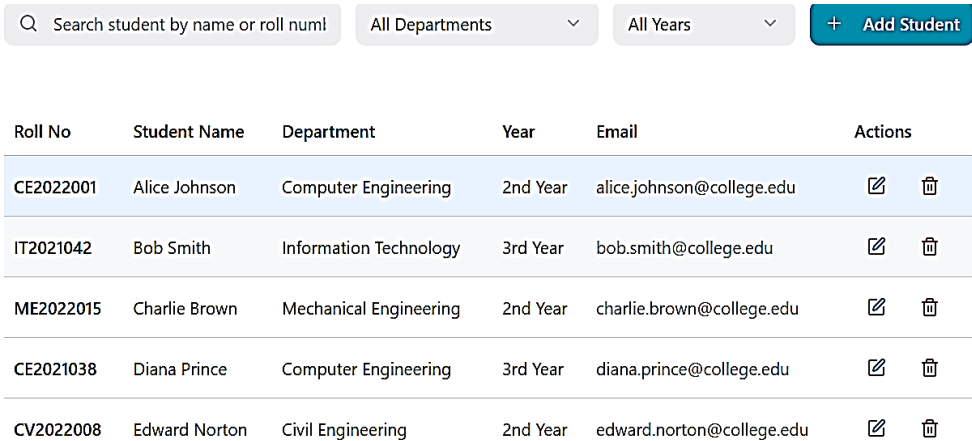


Figure 5. List of students.

Students can view assignments from multiple subjects on a single platform, making it easier to stay organized and track their work. see in below (Figure 7) The platform also provides an academic calendar and timetable, which helps students plan their studies effectively

Faculty members can create and manage events such as technical and cultural activities for students through the platform. The layout is shown in (Figure 8).

Student Module

In the campus connect: A Digital Solution for Academic and Event Management System, the Student Module provides a single platform where students can handle both academic and campus-related activities. It allows students to access study materials, check subject details, and stay updated with class schedules and academic notices without depending on multiple sources [11].

Through this module, students can submit assignments, monitor their attendance, and receive important updates from the faculty. It also supports event participation by allowing students to view and register for upcoming events easily. Notifications ensure that students do not miss deadlines, announcements, or other important activities. Overall, the Student Module helps students stay organized, saves time, and improves communication by bringing all the necessary information into one system.

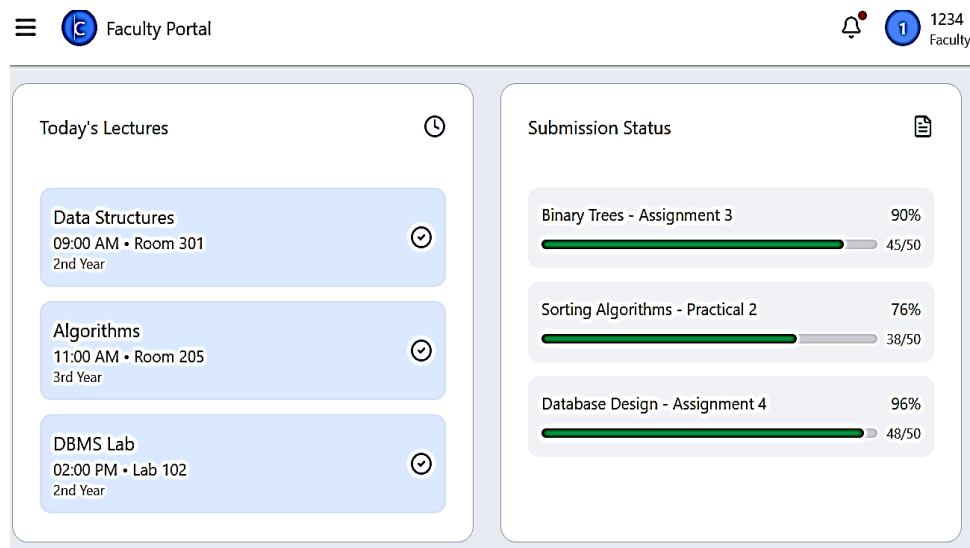


Figure 6. Faculty panel for academic material.

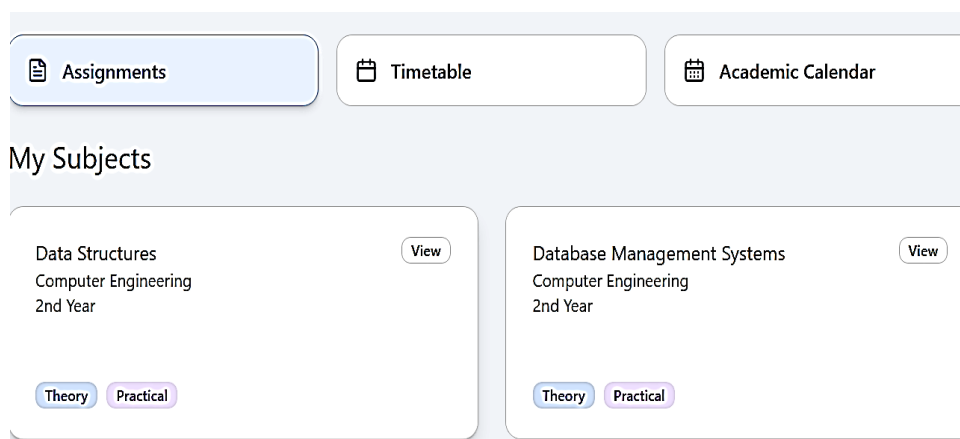


Figure 7. Learning and schedule module.

Combines academic activities and event management into one simple and easy-to-use dashboard for students' Real-time updates and notifications ensure they never miss important information. This integrated system makes campus life more organized and engaging for students. as shown in (Figure 9).

Future Scope

In the future, Campus Connect can be improved by adding more smart features, such as AI-based recommendations for events, study materials, and attendance monitoring [4]. The system can also include a mobile application for easier access anytime and anywhere. Integration with online learning platforms and attendance tracking using biometric or face recognition can make it more advanced [12]. Additionally, better data analytics can help institutions make smarter decisions and improve the overall student performance.

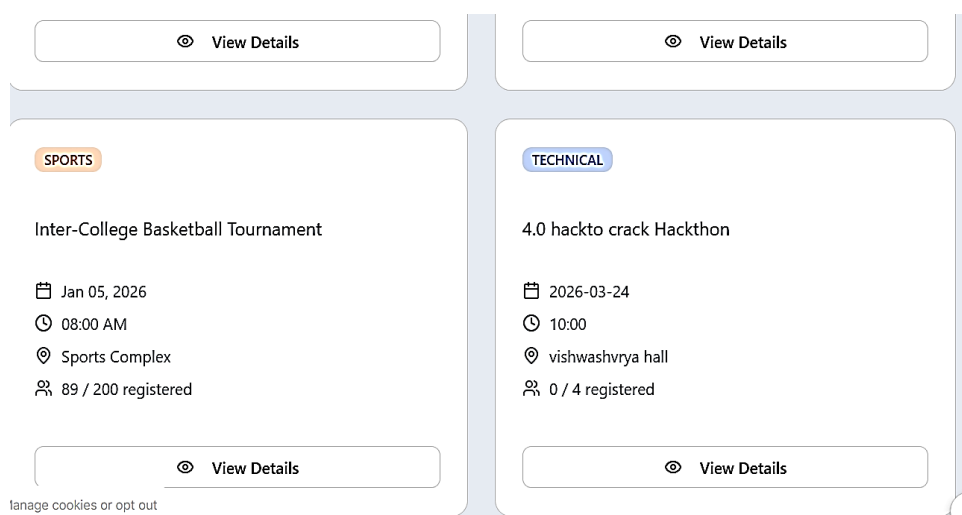


Figure 8. Upcoming event list.

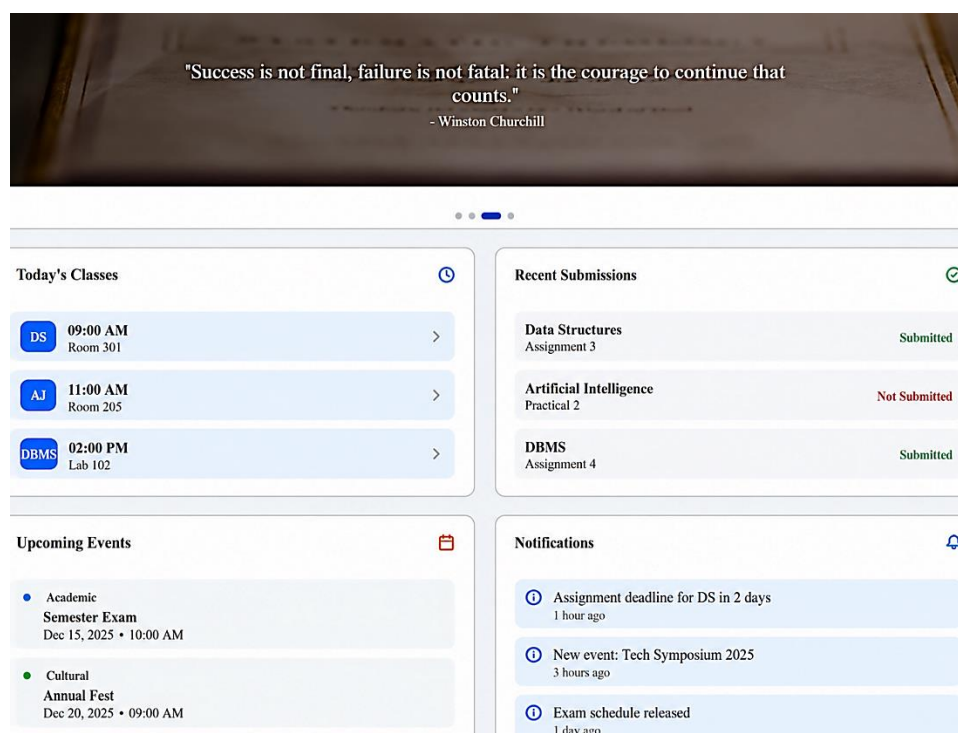


Figure 9. Student dashboard.

RESULT AND DISCUSS

Figures 4–9 represents the output generated by the Campus Connect system for managing academic and event activities. Students and faculty interact with the platform through a unified dashboard, where information related to assignments, schedules, and events is updated in real time. All data are centrally stored and managed, ensuring easy access and consistency across the system. To evaluate the performance of the proposed system, testing was conducted with a group of users, including students, faculty, and administrators, over several days. The system handles multiple operations, such as assignment uploads, event registrations, timetable updates, and notifications. Students were able to submit assignments, view deadlines, and register for events, while faculty managed course content and evaluated submissions. The admin monitored the user data and system analytics through the dashboard. Compared to traditional methods, where information is shared through notice boards or messaging platforms, the Campus Connect system significantly reduces delays and confusion. Important updates were delivered instantly through notifications, ensuring that students did not miss any deadlines or events. The centralized platform also minimizes manual errors in record keeping and improves overall coordination. The results show that Campus Connect enhances efficiency by reducing manual workload and saving time for both students and faculty. It also improves communication and engagement within institutions. Overall, the system is a reliable and effective digital solution for managing academic and event-related activities in a structured and user-friendly manner.

CONCLUSION

Campus Connect was developed to simplify academic and event management. It connects students, faculty, and administration on one platform, so all information, such as assignments, timetables, and events, is available in one place. The system reduces manual work by handling tasks such as assignment submission, event registration, attendance tracking, and notifications automatically. It helps students stay updated on deadlines, academic calendars, and event details without missing anything. Faculty can upload notes, manage assignments, and organize technical and cultural events, while the administrator can easily monitor data and analytics through the dashboard. Overall, Campus Connect is a useful, time-saving, and user-friendly solution that improves communication, reduces effort, and makes campus management more efficient.

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