International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 10 Issue: 01 | Jan - 2026 SJIF Rating: 8.586 ISSN: 2582-3930

Smart EventHub for Campus Management

Prof Abhijit G Kalbande, Ms. Tanvi Jichkar, Mr. Mohammad Zubair, Ms. Sneha Dangra, Mr. Sandesh Patil

Assistant Professor, Dept. of I.T. Prof Ram Meghe College of Engineering & Management, Badnera
UG Student, Dept. of I.T. Prof Ram Meghe College of Engineering & Management, Badnera
UG Student, Dept. of I.T. Prof Ram Meghe College of Engineering & Management, Badnera
UG Student, Dept. of I.T. Prof Ram Meghe College of Engineering & Management, Badnera
UG Student, Dept. of I.T. Prof Ram Meghe College of Engineering & Management, Badnera

---

Abstract - Automating Campus Events is designed to provide a centralized digital platform for organizing and managing college events in an efficient and user-friendly way. Traditional event management methods, such as paper notices, manual registrations, or Google Forms, are often slow and scattered, making it difficult for both students and organizers to keep track of events. Our system replaces these outdated practices with a streamlined online solution that allows organizers to create, update, and monitor events, while students can easily browse and register for activities of their interest. By reducing manual workload, minimizing errors, and improving participation, this project enhances the overall event experience on campus. By reducing manual workload, minimizing errors, and improving participation, this project enhances the overall event experience on campus.

Key Words: Online Registration, Student Portal, Event Scheduling, Club Activities, Centralized Platform, Administrative Dashboard, Participation Tracking.

1.INTRODUCTION

Campus events and student club activities play a vital role in enhancing student life. However, the traditional methods of managing such events using notice boards, word-of-mouth communication, scattered social media announcements, or even Google Forms often lead to inefficiencies such as poor event visibility, miscommunication, duplicate registrations, and low student participation. Organizers frequently struggle with manual processes like scheduling, registration tracking, and sending timely reminders, which not only consume valuable time but also reduce overall effectiveness. To overcome these challenges, the project Automating Campus Events introduces a comprehensive web-based platform that digitizes and streamlines the entire event management lifecycle. The system provides an integrated solution where organizers can easily create, update, and promote events. The system ensures that participants remain informed and engaged, reducing the likelihood of missed opportunities. In today's fast-paced educational environment, where students juggle multiple academic and extracurricular commitments, Automating Campus Events emerges as a scalable, cost- effective, and impactful solution. It not only simplifies event management for institutions but also enriches the overall campus experience by improving communication, participation, and efficiency in student activities.

Automating Campus Events is designed as a centralized digital platform that modernizes the way colleges manage and promote events and student club activities. Unlike traditional manual methods that depend on paper-based registrations and scattered communication, this system streamlines the process by integrating event scheduling, online registration, and automated notifications into a single, user-friendly portal. At the heart of the system lies a robust database that securely stores user details, event information, and participant records. Organizers can easily create, update, and manage events, while students can browse upcoming activities through an intuitive dashboard, register online, and receive timely SMS or email reminders. Administrators are provided with monitoring and approval controls, ensuring smooth and organized management of all campus events. By offering an automated and accessible platform, the system reduces workload for event organizers, improves communication across the campus, and significantly increases student participation. Its mobile-friendly design ensures usability for both technical and nontechnical users, making it a comprehensive solution that enhances engagement and creates a more connected campus environment.

2. RELATED WORK

EventHub A Centralized Web Portal for University Events (2020) This paper belongs to the category of Centralized Event Management Systems. It focuses on creating a unified online portal for organizing university events. The study identified the absence of a centralized platform as a major problem, leading to fragmented information and poor event discovery. The proposed solution used MVC architecture, REST APIs, and role-based access control, allowing administrators to manage events efficiently through CRUD operations and approval workflows. Personalized Event Recommendation for Students (2021) This work falls under the category of Personalized Event Recommendation Systems. The paper addressed the issue of low participation in campus events due to lack of personalization. To solve this, the authors implemented a hybrid recommendation model combining content-based and collaborative filtering. It analyzed user profiles and event history to suggest relevant and trending events, encouraging greater student involvement. Crowd Flow: Venue & Capacity Planning for Campus Events (2020) This paper is classified under Venue and Capacity Optimization Systems. It focused on improving event logistics by forecasting attendance and optimizing space usage. The study used predictive analytics models like Prophet and real-time heatmaps to monitor crowd density and dynamically adjust venue capacities, helping avoid overcrowding or underutilization. Access4All: Inclusive Design for Event Platforms (2021) This research is part of the Inclusive Event Management Platforms category. It

emphasized the importance of accessibility in event systems, particularly for differently abled users. The paper proposed features like keyboard-first navigation and automated alt-text generation, ensuring that all students could interact with the platform without barriers. Safe Meet: Moderation and Approval Pipelines for Events (2019) This paper is categorized under Secure and Policy-Moderated Event Management Systems. It addressed the challenge of ensuring content quality and compliance in campus event listings, as unverified postings could lead to misuse or inappropriate content. The authors developed a workflow engine with policy moderation queues and NLP-based detection violation, ensuring that every event passes through an approval process before publication. Design and Implementation of a Comprehensive College Event Management System (2025) This work falls under the category of Integrated Event Management Systems. The paper focused on reducing manual workload and friction in managing college events. The authors proposed a unified web-based EMS that included role-based access control, real-time notifications, online registrations, and analytics. The system streamlined all event-related processes under a single platform. College Event Management System (Easy Chair Preprint, 2024) This study belongs to the category of Digital Event Scheduling and Coordination Systems. It discussed inefficiencies in traditional event scheduling and registration. The proposed solution included digital scheduling, participant registration, resource tracking, and coordination tools, which improved communication between organizers and participants while reducing manual dependency. Centralized Web-Based Event Management via Eventify (2025) This paper is classified under Centralized Web-Based Event Management Systems. It addressed the problem of dispersed event information being shared through posters and message groups, leading to low turnout. The authors developed Eventify, a web-based EMS with online registration, digital IDs, and organizer dashboards, improving accessibility and participation rates.CU-EVENTS: A Comprehensive Event Management System for University Campuses (2024) This work comes under the category of Comprehensive and Analytical Event Management Systems. The study identified the lack of centralized systems for real-time engagement and tracking. The proposed solution used three-layer architecture (UI, backend, and database) that allowed students to register, engage, and analyze participation trends efficiently.

3. PROPOSED SYSTEM

The proposed approach for this project focuses on developing a centralized, web-based platform that automates the entire lifecycle of campus event management — from event planning and registration to participation tracking and post-event evaluation. The system aims to address the inefficiencies of traditional event management methods, which rely on paper-based communication, scattered Google Forms, and manual data handling. These existing methods often lead to duplicate entries, poor coordination, and low participation. To overcome these challenges, the proposed approach integrates modern web technologies and automated processes to create a structured, user- friendly, and efficient solution for students, organizers, and administrators. At the core of this approach is the automation of event creation and registration. Event organizers will have access to a secure admin interface where they can log in, create new events, update details, and manage participant data in real time. The system will store all event-related information in a centralized database, ensuring consistency, accuracy, and easy retrieval. For students, the platform will serve as a one-stop solution where they can view all upcoming events, register with a single click, and receive immediate confirmation of their participation. This eliminates the need for multiple Google Forms and scattered registration methods. The proposed approach also includes implementing role-based access control, where each user — whether a student, organizer, or admin — will have specific permissions based on their role. Admins will have complete access to approve or remove events, manage user accounts, and monitor overall activity. Organizers will be able to handle event scheduling, participant management, and feedback collection, while students can register, view event details, and track their attendance or participation history. This layered approach ensures system security, efficiency, and transparency. Another important aspect of the proposed approach is data management and security. All event information, user details, and participation records will be stored securely in a relational database such as MySQL, with proper encryption and authentication mechanisms. The use of a structured database will allow for easy scalability and future integration with advanced modules like analytics or mobile applications. Automated validation will also prevent duplicate registrations and incorrect data entries, improving the reliability of the system. In addition to core functionalities, the system will feature a simple and intuitive user interface designed using HTML, CSS, and JavaScript to ensure accessibility for users with varying technical skills. The backend will be developed using frameworks like Node.js or PHP, ensuring dynamic interaction with the database and seamless data flow. The platform will also include modules for post-event evaluation, where feedback from participants can be collected and analysed to improve future event planning.

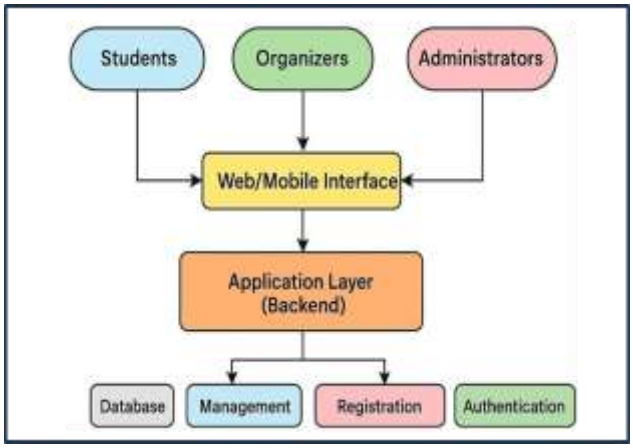

Fig-1: Automating Campus Events System Architecture

4. WORKING PRINCIPAL

The working principle of the proposed Automating Campus Events system is centered around the idea of providing a centralized digital platform where all stakeholders—students, organizers, and administrators—can interact seamlessly. Unlike traditional methods such as noticeboards, posters, or word of mouth, this system ensures that event-related tasks are handled digitally, improving efficiency, accuracy, and communication. The process begins when organizers create an event by submitting essential details such as the event title, date, time, venue, description, and eligibility criteria (if applicable). The system also allows uploading additional information such as rules, event guidelines, or registration fees. Once the event is created, the system automatically performs a

conflict check to ensure there are no overlapping schedules with other ongoing or planned events. This conflict-free scheduling mechanism ensures smooth coordination across multiple clubs, societies, and departments within the campus.

After the event is created, it is forwarded to the administrator for approval. Administrators verify the details to ensure the event aligns with institutional policies and guidelines. Once approved, the event is officially published on the platform and becomes visible to all registered students. This eliminates delays caused by manual approvals or scattered communication channels. Following publication, the system immediately sends automated notifications and alerts to students through different channels such as email, SMS, or app-based push notifications. This guarantees that no student misses out on important announcements. Real-time updates also keep students informed about changes in timing, venue, or rules, ensuring there is no miscommunication.

Students can then register directly through the platform by filling out digital forms, making the process faster, smoother, and more reliable compared to traditional paper-based registrations. In case of limited seats, the system automatically stops further registrations once the capacity is reached, ensuring fairness in participation. Students can also view a personalized dashboard showing upcoming and registered events, making the experience more engaging and organized.

On the day of the event, the system plays a vital role in attendance management. Organizers can generate a digital list of registered participants, and only those students are allowed entry, reducing unauthorized access. The system can also provide QR-code-based check-in to speed up the process. This ensures proper tracking of attendees and avoids manual effort in maintaining attendance sheets. Overall, the working principle of Automating Campus Events revolves around three major aspects

Fig -2: System Flow Chart

IJSREM sample template format ,Define abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Abbreviations such as IEEE, SI, MKS, CGS, sc, dc, and rms do not have to be defined. Do not use abbreviations in the title or heads unless they are unavoidable.

5. Conclusion and Future Work

The proposed system for Automating Campus Events provides an efficient, reliable, and user- friendly solution to the challenges faced in traditional event management within colleges and universities. By centralizing event creation, approval, registration, and scheduling into a single platform, the system minimizes miscommunication, reduces administrative workload, and ensures smoother coordination between organizers, students, and administrators. The elimination of scheduling conflicts, along with simplified student participation, makes the overall event process more transparent and streamlined. Although the system requires initial technical setup, training, and maintenance, its long-term benefits outweigh the challenges. With enhanced accessibility, improved participation rates, and structured event records, this digital solution transforms the way campus events are organized. Ultimately, the system promotes efficiency, saves time, and creates a more engaging and connected academic environment, paving the way for a smarter and digitally empowered campus. In the future, the Automating Campus Events system can be enhanced with smart technologies to make it more efficient and user-friendly. Features like AI-based event recommendations, QR code attendance tracking, and real-time analytics can help in understanding student interests and improving participation. The system can also evolve into a mobile application, enabling users to access event updates, registrations, and feedback directly from their smartphones anytime, anywhere. Furthermore, integrating cloud storage, secure payment gateways, and multi-campus collaboration can expand the platform's scope to handle larger events across institutions. Future upgrades could also include automated report generation and feedback sentiment analysis to evaluate event performance and satisfaction levels. These improvements will make the platform not just a management tool but a complete digital ecosystem for campus event organization and engagement

REFERENCES

1. Sharma, A., Patel, R., & Kumar, S. (2020). EventHub: A centralized web portal for university events. International Journal of Web-Based Systems, 15(2), 101–110. Springer.
2. Gupta, S., & Khan, M. (2021). EventRecs: Personalized event recommendation for students. Journal of Educational Technology and Applications, 12(3), 215–225. Elsevier.
3. Verma, N., Thomas, L., & Ansar, S. (2020). CrowdFlow: Venue & capacity planning for campus events using predictive analytics. Journal of Information Systems & Data Analytics, 9(4), 145–157. IEEE.
4. Kumar, H., & Fernandes, A. (2021). Access4All: Inclusive design for event platforms. ACM SIGACCESS Reference on Accessible Computing, 34(6), 88–96. ACM.
5. Iyer, V., & Nair, P. (2019). SafeMeet: Moderation and approval pipelines for events. International Journal of Secure Web Engineering, 25(3), 159–170. Springer.

6. Thankachan, A., Shafeeq, M. B., & Nair, S. S. (2025). Design and implementation of a comprehensive college event management system. International Journal of Emerging Trends in Engineering Research (IJETER), 13(2), 221–230.
7. Mehta, S., Goud, K. S., Pavankalyan, K., Kumar, J. K., & Srinivas, D. (2024). College Event Management System (EasyChair Preprint). EasyChair Preprint Series, 1512, 1–8.
8. Dongaonkar, S., & Adhav, S. (2025). Case Study: Centralized Web-based Event Management via Eventify. International Reference on Advances in Computing & Information Systems, 44(2), 88–95. IEEE.
9. Chaturvedi, A., Sharma, K., Dua, A., & Gupta, A. (2024). CU-EVENTS: A comprehensive event management system for university campuses. Journal of Educational Technology Systems, 52(4), 377–390. Sage.

BIOGRAPHIES

Prof. Abhijit G. Kalbande is an Assistant Professor in the Department of Information Technology at Prof. Ram Meghe College of Engineering & Management, Badnera, where he has been serving for the past 12 years. He has published more than 50 research papers in reputed national and international journals and conference proceedings. He has also filed multiple patents in emerging technological domains. His primary research interests include the Internet of Things (IoT), Embedded Systems, and Artificial Intelligence.

Ms. Tanvi Jichkar is a final-year undergraduate student in the Department of Information Technology at Prof. Ram Meghe College of Engineering & Management, Badnera. Her research interests include Artificial Intelligence, Data Science, and Machine Learning.

Mr. Mohammad Zubair is a final-year undergraduate student in the Department of Information Technology at Prof. Ram Meghe College of Engineering & Management, Badnera. His research interests include Artificial Intelligence, Data Science, and Machine Learning.

Ms. Sneha Dangra is a final-year undergraduate student in the Department of Information Technology at Prof. Ram Meghe College of Engineering & Management, Badnera. Her research interests include Artificial Intelligence, Data Science, and Machine Learning.

Mr. Sandesh Patil is a final-year undergraduate student in the Department of Information Technology at Prof. Ram Meghe College of Engineering & Management, Badnera. His research interests include Artificial Intelligence, Data Science, and Machine Learning.