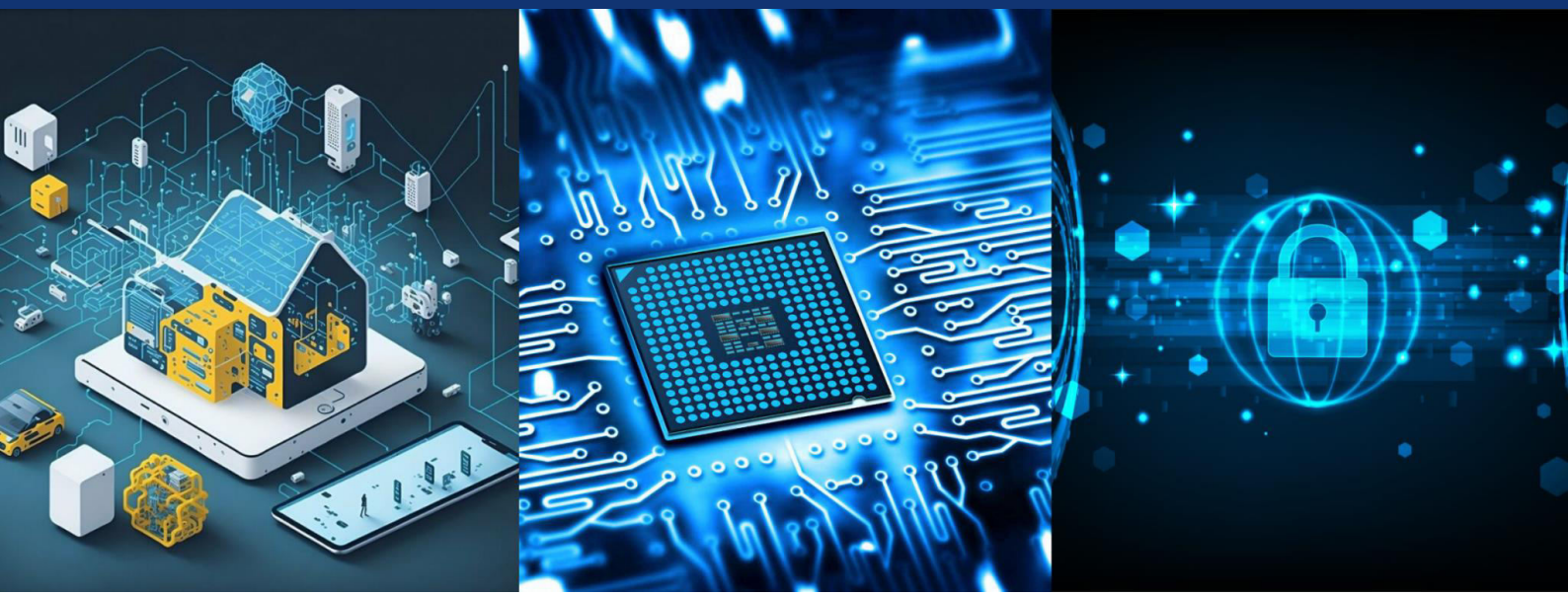
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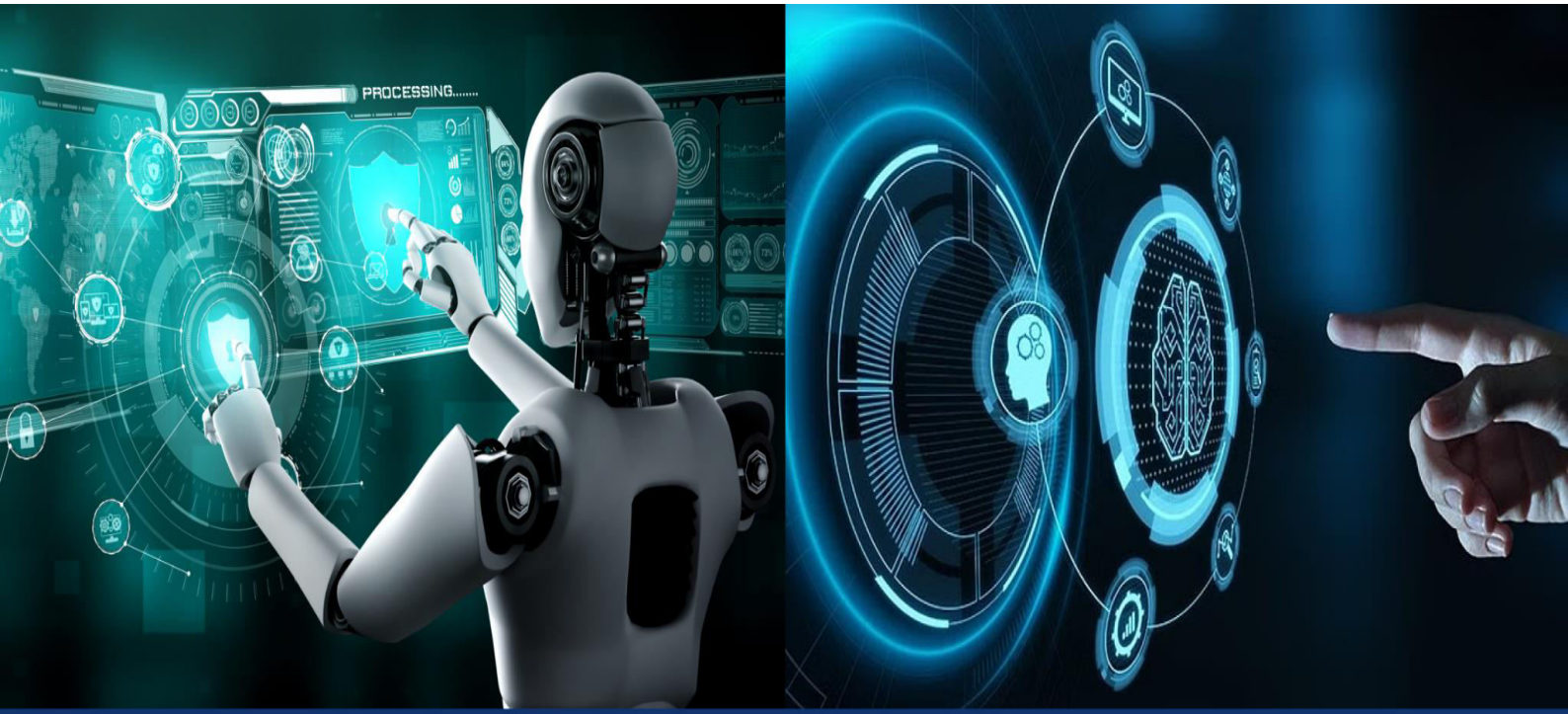
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Event Management and Ticketing System

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ABSTRACT: The Event Management and Ticketing System is a digital platform developed to simplify the process of organizing events and managing ticket bookings. In the traditional method, event registration, ticket distribution, attendee records, and payment details are often handled manually, which can take more time and may result in errors. The proposed system provides a single platform where event organizers can create and manage events, while users can search for events, view complete event information, select tickets, and complete the booking process.

The system maintains important information such as user details, event details, ticket availability, bookings, and payment status in a structured database. After a successful booking, a digital ticket can be generated with a unique ticket ID and QR code. The QR code can be used by the event organizer to verify the ticket during entry and reduce the chances of duplicate or invalid tickets.

The main aim of this system is to reduce manual work, improve ticket management, save time, and provide a convenient experience for both organizers and attendees. The system can be further enhanced with features such as online payment integration, seat selection, event recommendations, notifications, maps, and event analytics.

I. INTRODUCTION

In the present digital era, different types of events such as college functions, seminars, workshops, conferences, concerts, sports events and exhibitions are organized regularly. Managing these events manually can be difficult because organizers have to handle registrations, ticket distribution, attendee information, payments and event details separately.

The Event Management and Ticketing System is proposed as a digital solution to manage these activities from a single platform. The system allows event organizers to create and manage events, while users can view available events, check event details, select tickets and complete the booking process.

The system can maintain information about users, events, tickets and bookings in a database. After successful booking, a digital ticket can be provided to the user. The ticket may contain a unique ticket number or QR code that can be checked at the event entrance.

The main purpose of this project is to reduce manual work and make event management simple, organized and convenient for both event organizers and attendees.

1.1 Problem Statement

Traditional event management systems often depend on paper forms, manual registration and physical tickets. These methods can consume more time and may create problems such as duplicate entries, incorrect records and difficulty in tracking ticket availability.

The proposed system attempts to solve these problems by providing a centralized digital platform for event creation, registration, ticket booking and verification.

1.2 Objectives

The main objectives of the system are:

- To provide an online platform for event management.
- To allow users to easily find available events.

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- To provide online event registration.
- To provide digital ticket booking.
- To maintain event and user records digitally.
- To automatically manage ticket availability.
- To generate unique digital tickets.
- To provide QR-based ticket verification.
- To reduce paperwork and manual effort.
- To improve the experience of event organizers and attendees.

1.3 . Scope of the Project

The system can be used for:

- College events
- Technical festivals
- Workshops
- Seminars
- Conferences
- Sports events
- Cultural programs
- Concerts
- Exhibitions
- Business events

II. LITERATURE SURVEY

2.1 Introduction

A literature survey is carried out to understand existing event management and ticket-booking systems. It helps in identifying commonly available features, existing limitations and areas where a new system can provide improvements. Modern event platforms generally focus on event discovery, registration, ticket booking, digital payments and attendee management. Digital ticketing has also reduced the dependence on physical tickets.

2.2 Existing Event Management Systems

Existing event platforms generally provide features such as:

- Event listing
- Event search
- Online registration
- Ticket booking
- Online payment
- Digital tickets
- Email/SMS notifications
- Event organizer dashboards

These systems have made the booking process more convenient for users.
However, many platforms are designed for large-scale commercial events and may include complicated features that are not necessary for small organizations, colleges or local event organizers.

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III. PROPOSED METHODOLOGY

The proposed methodology for the College Event Management and Ticket Booking Application follows a layered architecture to ensure efficient event management and ticket booking.

The system allows students to register, log in, browse events, and book tickets through a user-friendly interface. Event organizers can create, update, and manage events, while administrators control users, event details, and reports.

The application layer processes user requests and communicates with backend services through REST APIs. Backend services handle event management, ticket generation, payment processing, user authentication, and notifications. All important information, including user details, events, bookings, and payment records, is stored in a relational database.

External services such as payment gateways and email/SMS services are integrated to support online transactions and booking confirmations. QR codes are generated for digital tickets to make ticket verification easier.

Thus, the proposed methodology provides a centralized, secure, and organized platform for managing college events and ticket bookings.

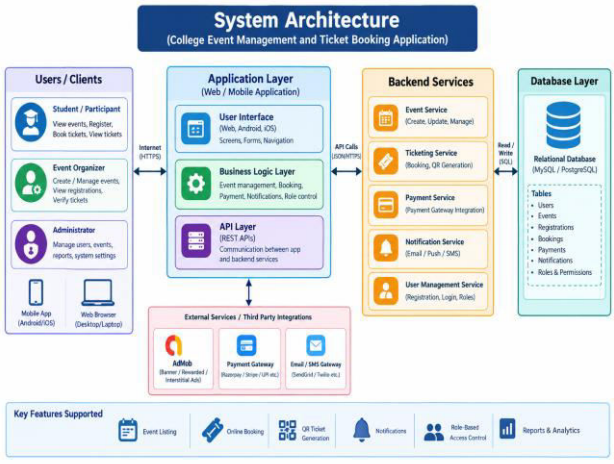


Fig. System Architecture

[1] System Architecture
The system architecture represents the overall design and working structure of the College Event Management and Ticket Booking Application. It explains how different components of the system interact with each other to provide an efficient event management and ticket booking experience.
The architecture is divided into four major layers: Users/Clients, Application Layer, Backend Services, and Database Layer.
1. Users/Clients Layer: This layer includes students, event organizers, and administrators. Students can register, log in, browse upcoming events, book tickets, and view their booking details. Event organizers can create and manage events, check registrations, and verify tickets. Administrators have access to manage users, events, reports, and system settings.
2. Application Layer: This layer provides the main interface through which users interact with the system. It includes the User Interface, Business Logic Layer, and API Layer. The user interface displays different screens and forms, while the business logic handles event management, ticket booking, payments, notifications, and user permissions. The API layer enables communication between the application and backend services.

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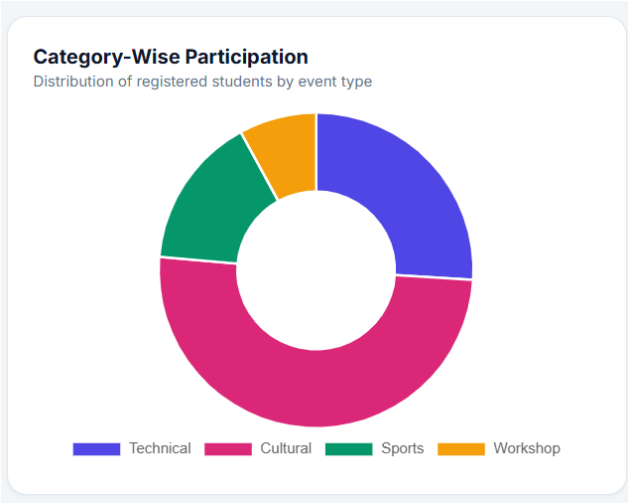
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3. Backend Services Layer: This layer manages the major operations of the application. It includes Event Service, Ticketing Service, Payment Service, Notification Service, and User Management Service. These services handle event creation, ticket generation, booking records, payment processing, notifications, registration, and login activities.
4. Database Layer: This layer stores and manages all important application data. It contains information about users, events, registrations, bookings, payments, notifications, and roles and permissions. A relational database such as MySQL or PostgreSQL can be used to maintain data accurately and securely.
5. External Services and Third-Party Integrations: The system can connect with external services such as payment gateways, email/SMS gateways, and advertising platforms. These integrations support online payments, booking confirmations, notifications, and advertisements.
6. Key Features: The architecture supports important features such as event listing, online ticket booking, QR code ticket generation, notifications, role-based access control, and reports and analytics.
Overall, this architecture provides a structured approach to developing the application. It ensures proper communication between users, application components, backend services, and the database. It also makes the system easier to maintain, manage, and expand with additional features in the future.



Event Registration Graph



System Dashboard

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Event Management System Dashboard – Explanation

The dashboard of the Event Management and Ticketing System provides a centralized view of event activities, student registrations, ticket revenue, and event entry verification. It helps the administrator monitor the overall performance of college events and manage important information from a single interface.

The dashboard is divided into different sections, each displaying important information through summary cards and graphical representations.

- **1. Total Published Events**

This section displays the total number of events published on the platform. In the given dashboard, 6 events have been published across 4 different campus categories.

It helps the administrator understand how many events are currently available for students. It also provides an overview of the event activities organized by different college departments and clubs.

- **2. Total Student Registrations**

This section displays the total number of students registered for different college events. According to the dashboard, 817 student registrations have been recorded.

It helps administrators monitor student participation and understand the popularity of different events. The dashboard also displays 5 individual QR passes in the verification log, which helps track digital ticket verification activity.

- **3. Entry Fee Revenue Collected**

This section displays the total revenue collected through event entry fees. The dashboard shows a total collection of ₹71,500. The revenue information helps administrators track the financial performance of events. It also indicates that payments have been recorded through payment methods such as UPI and Campus Wallet.

- **4. Gate Check-In Rate**

This section represents the percentage of registered ticket holders whose entry has been successfully verified at the event entrance.

The dashboard displays a check-in rate of 40% (2 out of 5). This means that 2 QR passes have been successfully verified out of 5 passes recorded in the displayed verification log.

This feature helps event organizers monitor attendee entry and reduce the possibility of duplicate or invalid ticket usage.

- **5. Event Registrations vs. Maximum Capacity**

This section contains a bar chart that compares the number of registered students with the maximum seating capacity of each published event.

The purple bars represent registered students, while the grey bars represent the maximum capacity of the event.

The chart displays information about six events:

- TechnoSpark 2026
- YuvaRang 2026
- Kreedotsav
- RoboWars & Autonom
- GenAI & Cloud Nati
- Nirman 2026

By comparing registrations with maximum capacity, administrators can identify events that are approaching their seating limits. This helps organizers manage available seats, avoid overcrowding, and plan event arrangements more effectively.

- **6. Category-Wise Participation**

This section displays the distribution of student registrations across different event categories using a doughnut chart.

The chart contains four categories:

- Technical: Includes coding competitions, technical festivals, robotics competitions, and technology-related events.
- Cultural: Includes dance competitions, music programs, cultural festivals, and other entertainment activities.
- Sports: Includes indoor and outdoor sports competitions and athletic activities.
- Workshop: Includes technical workshops, training sessions, seminars, and practical learning activities.

Different colours are used to represent each category, making it easier to compare student participation. This information helps administrators identify popular event categories and plan future college activities according to student interests.

- **7. Overall Importance of the Dashboard**

The dashboard plays an important role in the proposed Event Management and Ticketing System. It provides administrators with a clear overview of event-related information without requiring them to check individual records manually.

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It improves the monitoring of event registrations, ticket availability, revenue collection, student participation, and QR-based entry verification. The graphical representation of information makes the system easier to understand and helps administrators make better decisions while organizing college events.
Overall, the dashboard makes event administration more systematic, efficient, transparent, and convenient.

IV. CONCLUSION AND FUTURE WORK

The Event Management and Ticketing System provides a digital method for managing events and tickets. The system brings event creation, event discovery, registration, ticket booking and ticket verification into a single platform.

The proposed system can reduce manual paperwork and make event-related information easier to maintain. Users can find events and book tickets without depending on physical registration methods. Organizers can manage event information, ticket availability and attendee records from one place.

Digital tickets and QR-based verification can also make the entry process faster and more organized.
Overall, the project demonstrates how software technology can be used to simplify event management and ticket booking.

REFERENCES

[1] Event Management System
J. T. Ogbiti and A. C. Jumai, “Design and Implementation of an Event Management System,” Kasu Journal of Computer Science, vol. 1, no. 4, pp. 796–813, 2024.
Mendeley
[2] Online Event Ticket Booking
Y. Yudhanto, E. H. Pratisto, F. A. Purnomo, T. N. Hidayat, N. A. Haqimi, and O. D. W. Ardhi, “Design and Development Museum Ticketing System (MTS) with Design Thinking Method,” Procedia Computer Science, vol. 234, pp. 1212–1219, 2024.
ScienceDirect
[3] QR Code-Based Ticketing System
S. Kadge, S. Sayyed, B. Buwa, and B. Madraswala, “M-Ticketing System using QR Codes for Mumbai Local,” International Journal of Computer Applications, vol. 162, no. 11, pp. 17–24, Mar. 2017.
IJCA
[4] Digital Ticket Verification and Security
S. Feulner, J. Sedlmeir, V. Schlatt, and N. Urbach, “Exploring the use of self-sovereign identity for event ticketing systems,” Electronic Markets, vol. 32, pp. 1759–1777, 2022.
Springer Nature Link
[5] Online Ticket Purchasing and User Experience
K. Celuch, “Customers' experience of purchasing event tickets: Mining online reviews based on topic modeling and sentiment analysis,” International Journal of Event and Festival Management, vol. 12, no. 1, pp. 36–50, 2021. DOI:
ScienceDirect
[6] Online Event Ticket Purchasing Behaviour
S. Abd Shukor, N. Md Sharif, M. K. Alwi, and N. Nordin, “Perception of Online Event Ticket Purchasing Among Young Adults in Malaysia,” Journal of Event, Tourism and Hospitality Studies, vol. 3, pp. 99–116, 2023.
UUM e-Journals
[7] Event Ticketing Management with Node.js
A. Y. Prasetyo and G. Swalaganata, “Sistem informasi manajemen ticketing event dengan payment gateway berbasis Node.js dan Next.js,” Journal of Information System and Application Development, vol. 2, no. 2, 2024.
[8]. Dr. S.N. Kakarwal, A.S. Gawali, Context aware human activity prediction in videos using Hand-Centric features and Dynamic programming-based prediction algorithm, Journal of Integrated Science and Technology, 2022, 10(1), ISSN:2321-4635, pp. 11–17 {Scopus indexed& IF 1.14}
[9]. Dr. S.N. Kakarwal, P.M. Paithane, Automatic Pancreas Segmentation Using RESNET-18 Deep Learning Approach, International Journal of System Research and Technologies, Vol 02, ISSN 1681–6048, 2022(2), pp. 104–116 {Scopus indexed}

www.ijircce.com | e-ISSN: 2320-9801, p-ISSN: 2320-9798| Impact Factor: 9.927| ESTD Year: 2013|

International Journal of Innovative Research in Computer and Communication Engineering (IJIRCCE)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

[10] Ashwini Gawali, Dr S.N. Kakarwal, Enhancing early action prediction in videos through temporal composition of sub-actions, Springer Journal, Multimedia Tools and Applications, Vol. 84(8), 18/03/2024, ISBN: 1380-7501, pp.4253–4281 {SCI & Scopus Index IF:3.6}

[11]. Dr S.N. Kakarwal, R. Mapari, Enhanced Detection and Segmentation of Brain Tumors Using a Dense BW-CNN Approach, Wiley Journal of Engineering, ISSN 2314-4912(Online) Vol 2024, pp. 1-14 {18/07/2024, SCOPUS & ESCI index, Web of Science, IF 1.7}

[12]. Dr S.N. Kakarwal, R. Mapari, A Novel Approach for Detection, Segmentation, and Classification of Brain Tumors in MRI Images Using Neural Network and Special C Means Fuzzy Clustering Techniques, Journal of Advances in Nonlinear Variational Inequalities ISSN: 1092-910X Vol 27 No. 3 (2024), pp. 837-872 (IF: 0.17)

[13] S. N. Kakarwal, Dr. R. R. Deshmukh, Analysis of Retina Recognition by Correlation and Covariance Matrix, Third International Conference on Emerging Trends in Engineering and Technology 2010 at Goa, ISSN 2157-0477, pp. 496-499{Scopus Indexed

[14] S. N. Kakarwal, Dr. R.R. Deshmukh, Face Recognition using Supervised Learning, World Comp 2012, Las Vegas, USA, Jul. 2012{Scopus Indexed}

[15] M.M. Ambekar, Dr.S.N. Kakarwal, S.S. Khedgikar, Design, acquisition and collection of multimodal databases to increase accuracy and level of security, IEEE Virtual International Conference ICSIDEMP 2020 organized by JNEC, Aurangabad (30/11/2020 to 31/11/2020) {Scopus indexed}

[16]. Dr.S.N. Kakarwal, K.P.Choudhari, R.B. Patil, Face recognition based on supervised learning, IEEE Virtual International Conference ICSIDEMP 2020 organized by JNEC, Aurangabad (30/11/2020 to 31/11/2020) {Scopus indexed}

[17]. Dr.S.N. Kakarwal, S.R. Choudhari, Analysis of Musical String Instruments using k-NN, IEEE Virtual International Conference ICSIDEMP 2020 organized by JNEC, Aurangabad (30/11/2020 to 31/11/2020) {Scopus indexed}

[18] Dr.S.N. Kakarwal, C.M. Gaikwad, A.N. Ghule, Classification based on Soil Attributes using non-imagery Spectroscopic data, ICKE 2023, Organized by Department of CS and IT of Dr. Babasaheb Ambedkar Marathwada University", Ch. Sambhaji Nagar (08/05/2023 to 09/05/2023

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