Project Brief: TUT Emalahleni Campus Event Management System

Problem Statement: Currently, event organizers at Tshwane University of Technology (Emalahleni Campus) rely on fragmented communication methods including emails, WhatsApp groups, and Google Forms for event promotion and student registration. This creates inefficiency, poor attendance tracking, and missed opportunities for students to discover campus events.

Solution Overview: Develop a centralized web-based event management system that streamlines event promotion, student notification, and registration processes for TUT Emalahleni Campus.

Target Users:

- **Primary:** Event organizers (staff, student organizations, clubs)
- **Secondary:** Students (event attendees)
- **Tertiary:** Campus administrators (for oversight and reporting)

Core Functional Requirements:

Event Organizer Features:

- Create and manage event listings with details (date, time, venue, capacity, description, images)
- Set registration deadlines and capacity limits
- Access attendee lists and registration analytics
- Send bulk WhatsApp notifications to students
- Generate QR codes for event check-ins

Student Features:

- Browse upcoming campus events by category, date, or organizer
- Receive automated WhatsApp notifications about relevant events
- Register/reserve spots for events with confirmation
- View personal event calendar and registration history
- Cancel registrations if needed

System Features:

- WhatsApp API integration for automated messaging
- User authentication (student numbers/staff IDs)

- Event categorization (academic, social, sports, career, etc.)
- Capacity management with waitlist functionality
- Mobile-responsive design for smartphone access

Technical Specifications:

- Web-based platform (accessible via browsers)
- Integration with WhatsApp Business API for notifications
- Database for user management and event storage
- Secure login system tied to university credentials
- SMS backup option for students without WhatsApp

Success Metrics:

- Increase in event attendance rates
- Reduction in no-show percentages
- Improved event discovery by students
- Streamlined registration process
- Better data collection for campus engagement analysis

Project Constraints:

- Must comply with university IT policies and data protection requirements
- Budget-friendly solution suitable for campus environment
- Easy adoption by non-technical event organizers
- Integration with existing university systems (if applicable)

Expected Outcomes:

- Centralized event management reducing administrative overhead
- Improved student engagement with campus activities
- Better communication channel between organizers and students
- Data-driven insights for campus event planning