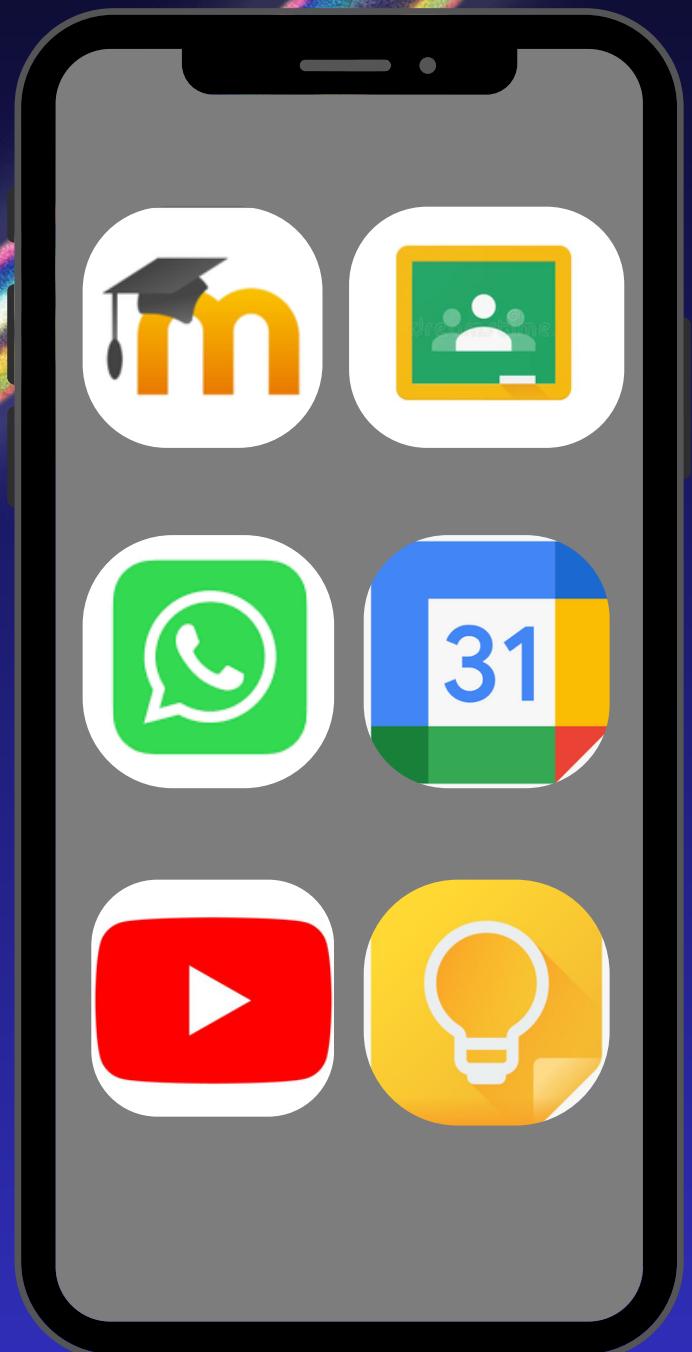


VEGA 2026

CAMPUSYNC

TEAM HALSQUAD

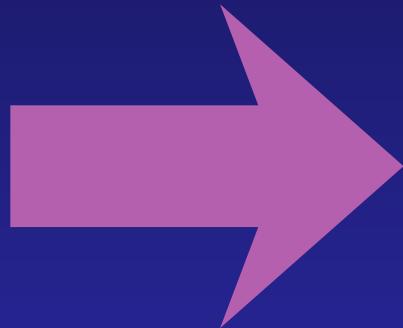
Problem: Fragmented Campus Ecosystem



Modern campuses use disconnected systems

for:

- Attendance tracking
- LMS & assignments
- Placements
- Events & clubs
- Announcements
- Administrative services

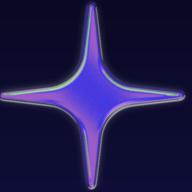


This leads to:

- Data silos
- No centralized academic intelligence
- Missed deadlines
- Notification overload
- No centralized academic intelligence
- Increased cognitive load

OUR SOLUTION

campusync



A scalable, AI-powered web platform that integrates:

Students

- View courses, attendance & results
- Assignment submission & deadline tracking
- Timetable & course progress charts
- Placement & internship portal
- Event registration & Lost & Found
- AI assistant (risk alerts, skill gap analysis, placement matching)

Teachers

- Manage courses, attendance & marks
- Post assignments & announcements
- View class performance analytics
- Identify at-risk students
- Problem Solving module
- Post placement opportunities (TPO)

Admin

- User & role management
- Academic analytics & department heatmap
- AI insight dashboard
- Broadcast notifications
- API health network visualization

Non teaching staff

- Canteen menu & order management
- Library issue/return tracking
- Hostel room allocation & complaints

CampuSync

teacher dashboard

The Faculty Dashboard displays various sections including 'Assignments' (Total Assignments: 2, Pending Review: 12, Total Submissions: 89), 'Implement Binary Search Tree' (Data Structures & Algorithms, Due: 2/10/2024, Max Marks: 100), and 'Graph Algorithms Assignment' (Data Structures & Algorithms, Due: 2/20/2024, Max Marks: 100). A sidebar on the left lists 'Dashboard', 'My Courses', 'Attendance', and 'Assignments' (selected).

student dashboard

The Student Dashboard shows an 'Attendance' overview with a bar chart for Data Structures, Database Management, and Operating Systems. Below this, there are cards for 'Data Structures & Algorithms' (Good, 38/45, 84.4%) and 'Database Management Systems' (Good, 30/40, 75%). A sidebar on the left includes 'Attendance' (selected), 'Assignments', 'Results', and other student-related features.

admin dashboard

The Admin Dashboard features a 'Dashboard' section with metrics like Total Students (1245), Total Faculty (78), Active Courses (156), Avg Attendance (82.5%), At Risk (45), and Placement Rate (87.3%). It also includes 'Department Performance' (bar chart for CSE, ECE, IT, MECH, CIVIL) and 'Attendance Trend' (line graph from Aug to Jan).

The 'My Courses' section lists four courses: 'Data Structures & Algorithms' (Sem 3, Dr. Rajesh Iyer), 'Database Management Systems' (Sem 3, Prof. Meera Nair), 'Operating Systems' (Sem 4, Faculty), and 'Computer Networks' (Sem 5, Faculty). Each course card includes syllabus progress bars and 'View Materials' buttons.

Extra Features

platform network visualisation

The screenshot shows the Admin Dashboard under the 'Campus Command' section. On the left, a sidebar includes links for Admin Panel, Dashboard, User Management, Analytics, AI Insights, Network View (which is highlighted in purple), Broadcast, System Monitor, and Logout. The main area is titled 'Network Visualization' and displays an interactive graph of campus connections. Nodes represent various entities: Students (blue), Faculty (purple), Courses (green), and Clubs (orange). Edges represent relationships, color-coded by status: Healthy (green), Warning (yellow), and Critical (red). Nodes include names like Microsoft FT..., VR, AR, CN, DE, DA, RK, C, DS, AD, PP, DR, AS, OS, and PM. A legend at the bottom defines the colors and symbols.

personalised analytics and recommendations

The screenshot shows the Student Portal dashboard under the 'CampusAI' section. At the top, it greets the user, Aarav Sharma, from the CSE department. The sidebar on the left lists various student services: My Courses, Attendance, Assignments, Results, Timetable, Placement, Events, Lost & Found, Problem Solving, Ask Faculty, AI Assistant, Canteen, and Logout. The main dashboard features several cards: 'Welcome back, Aarav!' (4 Courses, GPA: 7.80, 76% Attendance), 'Pending Assignments' (1), 'Upcoming Events' (3), 'Placement Matches' (1), 'Active Problems' (3), 'Academic Health' (82, At Risk, Overall Score, note: Operating Systems attendance below 75%), 'AI Job Matches' (Software Engineer Intern at Google, 92% Match), and 'Today's Classes' and 'Upcoming Assignments' sections.

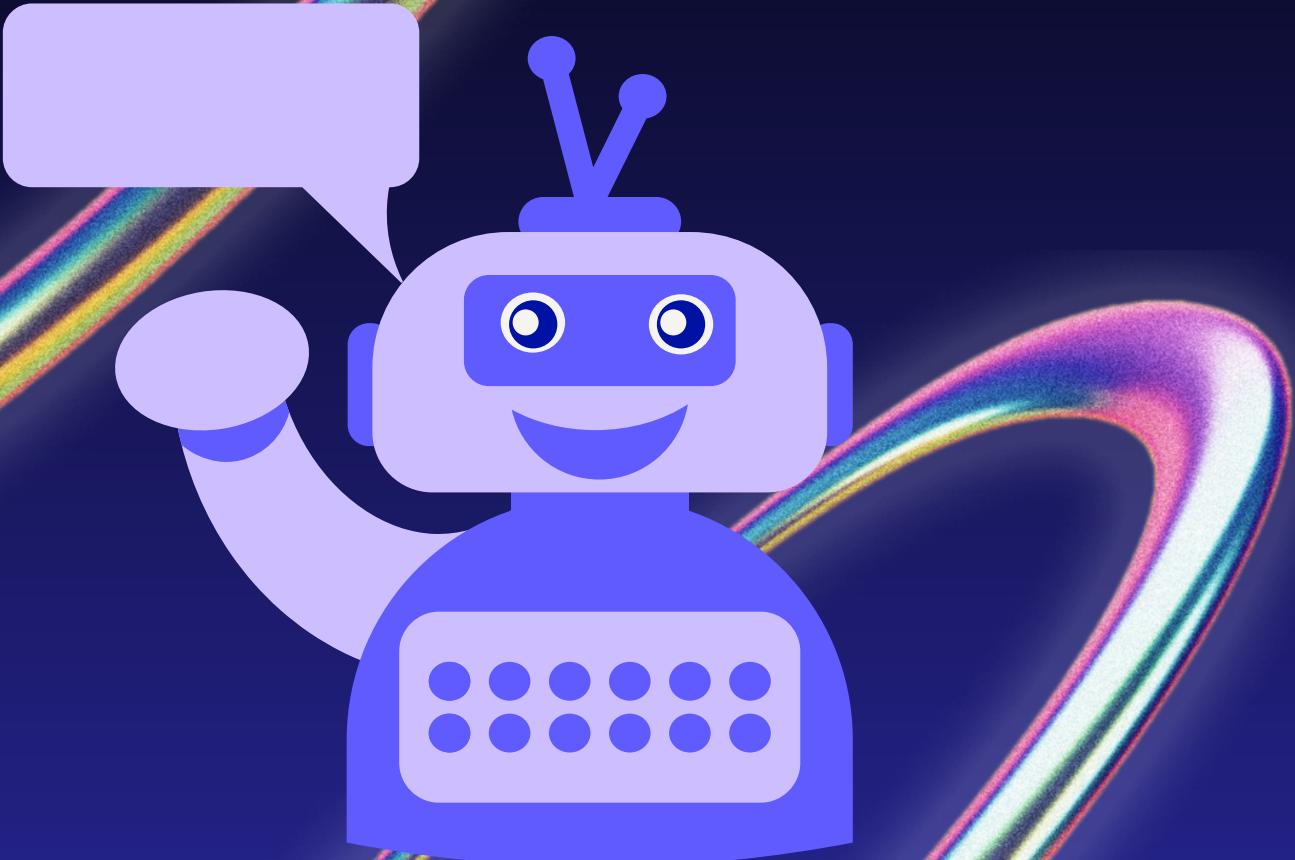
communication

The screenshot shows the 'Ask Faculty' feature in the CampusAI Student Portal. The sidebar includes links for Dashboard, My Courses, Attendance, Assignments, Results, Timetable, Placement, Events, Lost & Found, Problem Solving, Ask Faculty (which is highlighted in blue), AI Assistant, Canteen, and Logout. The main area displays three open questions: 1) 'Help with Dijkstra Algorithm Implementation' from Aarav Sharma (Data Structures) with an answer from Dr. Rajesh Iyer. 2) 'Database Normalization Confusion' from Priya Patel (Database Management) with an answer in review. 3) 'Understanding Deadlocks in OS' from Vikram Rao (Operating Systems) with an open status. A ' + Ask Question' button is located at the top right.

personalised ai assistant

The screenshot shows the AI Assistant feature in the CampusAI Student Portal. The sidebar includes links for Dashboard, My Courses, Attendance, Assignments, Results, Timetable, Placement, Events, Lost & Found, Problem Solving, Ask Faculty, AI Assistant (which is highlighted in blue), Canteen, and Logout. The main area features a conversation with the Campus AI Assistant: 'Hello! I am your AI Academic Assistant. How can I help you today?' (01:01 PM), 'You have 1 pending assignments:' (Graph Algorithms Assignment - Due: 2/20/2024, 03:49 PM), and a message from the user asking 'What is my GPA?' (03:49 PM). A 'Pending assignments' notification is visible on the right.

AI INTEGRATION



Personalized AI Academic Assistant

For Students:

- Risk score calculation (attendance + marks + deadlines)
- Predictive attendance alerts
- Performance trend detection
- Skill gap analyzer
- Placement matching engine
- Lecture prioritization suggestions

For Faculty:

- AI-refined real-world problem statements
- Identify at-risk students
- Performance drop detection

Scalability Potential

Designed for:

- Multi-campus deployment
- Cloud-native scaling
- API-based external integrations
- Mobile-first expansion

Security & Governance

- JWT-based Authentication
- Role-Based Access Control
- Modular Backend APIs
- Secure Data Layer

Existing systems vs CampuSync

Aspect	Existing Campus Systems (Typical in)	Our Unified Campus Super App
System Structure	Multiple independent portals	Single centralized intelligent dashboard
Role Management	Basic role separation	JWT-based Role-Based Access Control (RBAC)
Data Integration	Data stored in silos	Cross-module integrated database
Student Dashboard	Static information display	Dynamic dashboard with analytics & insights
Attendance	Manual viewing per subject	Visual charts + trend analysis
Academic Tracking	Marks displayed as raw scores	Performance trend graphs + risk detection
Notifications	Email or LMS only	Centralized intelligent notification engine
Placement System	Separate portal	Skill-based AI matching engine
AI Usage	None / minimal	Risk score engine + placement matching + trend detection
Analytics	Limited reporting	Department heatmaps + performance analytics
Teacher Tools	Limited reporting	Unified faculty control panel
Teacher Insights	Manual interpretation	AI-flagged at-risk students
Intervention Capability	Reactive	Predictive & proactive
Visualization	Mostly tabular data	Interactive charts & visual dashboards
Administrative Visibility	Department-wise isolated data	Institution-wide real-time analytics
API Monitoring	Not visible	API health network graph visualization
Scalability	Hard to extend	Modular architecture, API-ready
Extensibility	Static systems	AI-ready service layer
Campus Services	Separate systems (hostel, library, events)	Integrated modules under one dashboard
Decision Making	Manual & delayed	Data-driven & predictive