

MUJ UniWay - Problem Statement

Organized by: Turing Sapiens in collaboration with Department of IoT and IS

Event Duration: August 8, 2025 - August 19, 2025

Submission Deadline: August 13, 2025 (First Round) | August 19, 2025 (Final Round)

Problem Overview

Navigating the expansive Manipal University Jaipur campus can be challenging for new students, visitors, faculty, and even existing community members. With multiple academic blocks, hostels, administrative offices, recreational facilities, and other important locations spread across the campus, finding specific destinations often becomes time-consuming and frustrating.

Currently, there is no comprehensive digital solution that provides real-time, interactive navigation assistance for the MUJ campus community. This gap creates inefficiencies in daily campus life and can negatively impact the overall university experience.

Problem Statement Options

Option A: Mobile Application Development

Develop a comprehensive mobile navigation application for MUJ campus

Create a user-friendly mobile application that serves as a digital campus guide, helping users efficiently navigate through various locations within Manipal University Jaipur. The solution should be intuitive, scalable, and designed to enhance the campus experience for all community members.

Option B: Web-Based Platform Development

Build an interactive web-based campus navigation platform

Design and develop a responsive web platform that provides comprehensive campus navigation services accessible through any web browser. The solution should offer seamless functionality across different devices while maintaining optimal performance and user experience.

Key Requirements

Functional Requirements

- **Interactive Campus Map:** Visual representation of the entire MUJ campus with clear location markers
- **Search Functionality:** Easy-to-use search feature for finding specific buildings, departments, or facilities
- **Route Planning:** Turn-by-turn navigation guidance from current location to desired destination
- **Location Categories:** Organized listing of academic blocks, hostels, dining facilities, recreational areas, administrative offices, and other key locations
- **Real-time Information:** Current status of facilities (open/closed, operational hours, Under Maintenance , etc.)

Technical Requirements

- **Responsive Design:** Seamless experience across different screen sizes and devices
- **Fast Loading:** Optimized performance with quick load times
- **User-friendly Interface:** Intuitive design that requires minimal learning curve
- **Scalability:** Architecture that can accommodate future campus expansions and feature additions
- **Accessibility:** Design considerations for users with different abilities
- **Cost-effectiveness:** Sustainable solution with minimal ongoing maintenance costs
- **Integration Potential:** Ability to integrate with existing university systems
- **Offline Functionality:** Basic navigation features available without internet connectivity (bonus feature)

Target Users

- **New Students:** First-year students and transfer students unfamiliar with campus layout
- **Visitors:** Parents, prospective students, guest lecturers, and external visitors
- **Faculty and Staff:** New employees and those visiting different departments
- **Existing Students:** Current students looking for efficient routes or discovering new campus facilities

- **Event Attendees:** Participants in campus events, conferences, and workshops

Evaluation Criteria

Technical Excellence (40%)

- Code quality and architecture
- Performance and optimization
- Scalability and maintainability
- Innovation in approach

Functionality (30%)

- Core feature implementation
- User experience design
- Problem-solving effectiveness
- Feature completeness

Scalability & Cost-effectiveness (20%)

- Long-term viability
- Resource optimization
- Maintenance considerations
- Growth potential

Presentation & Communication (10%)

- Clarity of concept explanation
- Team collaboration demonstration
- Professional presentation delivery
- Response to feedback and question

Submission Guidelines

For Phase 1 (August 13, 2025):

1. **Git Repository Submission:** Share your complete project GitHub repository with:
 - Clean, well-structured code
 - Comprehensive README file with project description
 - Setup and installation instructions
 - Technology stack details
 - Screenshots or demo links

2. Repository Requirements:

- Public repository or provide access to evaluation team
- Commit history showing development progress
- Proper branching strategy (if applicable)
- Clear documentation in markdown format

3. Offline Presentation: Be prepared to demonstrate your prototype live during the presentation session

For Phase 2 (August 19, 2025):

- Enhanced version with improvements based on feedback
- Updated repository with detailed documentation
- Implementation roadmap for full-scale development
- **August 8, 2025:** Problem statement release and registration opens
- **August 13, 2025:** First submission deadline & Phase 1 prototype presentations (Offline)
- **August 19, 2025:** Final presentations (Offline)

Registration & Communication

- **Registration:** <https://forms.gle/MkMTgMGSLvEBiY6G7>
- **Communication Platform:** Join our Whatsapp group for all updates and queries https://chat.whatsapp.com/LFCsq9z3WCO3Q6FvGyCKTN?mode=ac_t
- **Certificates:** E-certificates will be provided to all participants

Post-Event Opportunity

Selected teams will have the opportunity to continue working on this project under the mentorship of Turing Sapiens, bringing their solution to life as an official campus navigation platform. This provides real-world development experience and the chance to see your work benefit the entire MUJ community.

For queries and clarifications, please reach out through the official Discord channel or contact the organizing team.

Good luck, and we look forward to seeing your innovative solutions!