

UNIVERSITY OF AGRICULTURE, FAISALABAD

Department of Computer Science

FINAL YEAR PROJECT PROPOSAL

CampusBridge UAF

Centralized Student E-Services & Workflow Routing Platform

Online applications | **Live tracking** | **Multi-campus ready** | **Chatbot assistant**

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PROJECT TYPE	Web-based multi-portal information system
STATUS	Proposal approved by the supervisor; updated to Version 2.0 to describe the implemented system

1 Problem Statement

At UAF, students apply for daily e-services (DMC, Student ID Card, Official Email, Wi-Fi Access, Fee Instalments, Library Membership, LMS credentials) through a manual, paper-based process. The main problems are:

Problem	What happens today
Physical queues and multi-office visits	Students travel between DSA, the Controller of Examinations, the IT Directorate and the Library to submit forms and paid challans.
No status visibility	There is no way to track an application, so students visit again only to ask for updates.
Heavy admin workload	Staff sort paper forms, verify receipts and keep registers by hand, which causes delays and errors.
No central audit log	Supervisors cannot see delays, bottlenecks or approval history.
Several campuses, one process	Requests from different campuses are mixed and cannot be separated or reported per campus.

2 Proposed Solution

CampusBridge UAF is a centralized, multi-portal web system that digitizes student administrative requests. Applications are submitted online and routed automatically to the correct desk of the right campus, which removes physical queues and paper forms.

Problem	How CampusBridge UAF solves it
Queues and office visits	One online portal; requests are routed to the right office and campus.
No status visibility	Live tracking on the dashboard and through a **chatbot** that looks up an application by tracking code, or by AG No. and CNIC.
Admin workload	Digital desk queues, online receipt checking, approve / return / reject with remarks, completion emails, PDF and ZIP downloads.
No audit trail	Automatic log of every important action (who, what, when, IP address), exportable by the Super Admin.
Rigid services	The Super Admin adds or changes services, form fields, fees and message templates without code or database changes.
Several campuses	Students choose campus and department; staff and Campus Admins see only their campuses; reports per campus.

3 How the System Works

The system has four kinds of users. Services and campuses are managed centrally:

Portal	Users	What they do
Student portal	Students	Register with CNIC, campus and department, apply for a service, upload documents, track status, edit and resubmit a returned application, download the application PDF.
Desk portal	DSA, Exams, IT, Library and LMS staff	See requests of their services and campuses, verify documents and payment, set the status within the statuses allowed to them, send completion details.
Campus Admin portal	Campus Admin	See all services but only their own campus: requests, students, reports.
Super Admin portal	Super Admin	Campuses and departments, staff and campus access, roles, students and users, services and form fields, reports, site settings, backups, audit logs.



Fig. 1 - Request workflow. Status values: Pending, Under Review, Completed, Rejected, Returned.

4 Dynamic Service Management

Services are not hard-coded. The system is metadata-driven, so a new service needs no code change and no database change.

- Create, edit, enable or disable a service; set its fee and guidance text.
- Define form fields (text, number, date, select, textarea, file) and mark them required.
- Choose which roles may process the service, the fields staff fill in on completion, and the completion email text.
- Attach a downloadable form template (PDF or DOCX) for students.
- The new service appears in the Student Portal and the chatbot at once and is routed automatically.

5 Campuses and Departments

Who	What they can do
Super Admin	Add and edit campuses and their departments; create Campus Admins; assign campuses to every staff member; see all campuses and filter by campus or service.
Campus Admin	Manages requests, students and reports of the assigned campus only.
Student	Chooses a campus at registration, then a department of that campus from a searchable list.
Desk staff	Sees only requests of the assigned campuses. With several campuses a campus filter appears.

6 Services Covered

E-service	Responsible office
Detail Marks Certificate (DMC)	Controller of Examinations
Student ID Card	DSA
Official University Email	IT Directorate
Campus Wi-Fi Access	IT Directorate
Fee deferment / instalments	Accounts / Fee Section
Library Membership	Main Library
LMS login credentials	LMS Office

More services can be added later by the Super Admin.

7 Key Features and Technology

- Online application forms with document upload and a printable PDF.
- Automatic routing by service, role and campus.
- Live status tracking, email notices and a floating chatbot assistant.
- Role-based and campus-based access control (student, desk staff, Campus Admin, Super Admin).
- Security: CSRF protection, hashed passwords, password policy, login lockout, idle timeouts, audit log.
- Reports and dashboards per campus with CSV and PDF export; backup and restore.

- Installable web app (PWA) that works on phones; single-file installer for the server.
- Technology: Bootstrap 5, PHP 8.1+, MySQL / MariaDB, PHPMailer, TCPDF + FPDI, Chart.js.

8 Expected Benefits

For	Benefit
Students	No queues, transparent tracking, 24/7 access from any campus or phone.
Staff	Less paperwork, fewer errors, organized digital queues limited to their campus and service.
University	Accountability through an audit trail, reports per campus, and a paperless, efficient process.