PROPOSAL

Development of a Centralized Digital Resource Portal (The "Academic Hub)

PXOFT DEVELOPMENT

PROPOSAL: DEVELOPMENT OF A CENTRALIZED DIGITAL RESOURCE PORTAL (THE "ACADEMIC HUB")

Executive Summary

This proposal outlines the development of the 'Academic Hub,' a centralized digital resource portal for Federal College of Education (Technical), Ekiadolor. The project seeks to unify academic, administrative, and communication processes into a single web-based ecosystem. It will serve students, lecturers, and staff, improving efficiency, communication, and the overall learning experience.

1. Project Title

The "Academic Hub": A Unified Web-Based Portal for Learning, Administration, and Collaboration.

2. Target Audience

• **Students** – for access to courses, resources, deadlines, and services.
• **Lecturers** – for teaching materials, communication, and academic management.
• **Administrative Staff** – for internal communication, digital services, and records.
• **Institutional Leadership** – for strategic oversight and data-driven decision-making.

3. Problem Statement / Justification

Currently, the college operates with fragmented digital tools and outdated manual processes. Students face difficulties locating course materials and

announcements; lecturers spend unnecessary time on repetitive inquiries; staff are burdened with routine tasks; and the institution lacks a modernized digital presence aligned with NCCE's and FME's ICT vision. This hinders productivity and weakens the institution's competitive edge.

4. Proposed Solution

The Academic Hub will be a centralized, mobile-responsive web portal integrating learning, administration, and communication.

Core Features

- **Unified Dashboard** – personalized landing pages for Students, Lecturers, and Staff.
- **Centralized Course Repository (Digital LMS)** – storage and access for syllabi, lecture notes, assignments, and multimedia.
- **Dynamic Announcements & Academic Calendar** – real-time announcements and deadlines.
- **Digital Directory & Office Hours** – searchable directory and online office-hour booking.
- **Resource Librar**y – official documents, policy manuals, and integration with e-library and journals.
- **Electronic ID Management** – digital IDs for students and staff with QR code verification for authentication, attendance, and campus security.
- **E-Services & Forms** – online submission of requests, applications, and forms.
- **Mobile-Responsive Design** – optimized for smartphones and tablets.

Additional Advanced Features (Future Phases)

- Learning Analytics Dashboard.
- Online Examination and Quiz Platform.
- E-Voting Module for student union and academic elections.
- Chat and Collaboration Tools.
- Cloud Integration & Data Backups.

- Payment Gateway Integration for fees and services.
- Etc. (under request)

5. Implementation Strategy

- **Phase 1:** Core Portal Development (Dashboard, Course Repository, Announcements, Calendar, Resource Library).
- **Phase 2:** Electronic ID System and Digital Directory.
- **Phase 3:** E-Services, Online Exams, and Collaboration Tools.
- **Phase 4:** Continuous Updates, Maintenance, and Training.

6. Benefits to FCE Ekiadolor

- **Students**: Easy access to resources and improved performance.
- **Lecturers**: Streamlined teaching and reduced repetitive queries.
- **Staff**: Reduced administrative bottlenecks and efficient workflows.
- **Institution**: Digital transformation, improved competitiveness, and alignment with NCCE and FME ICT policy.

7. Sustainability & Maintenance Plan

- Hosting and domain management under institutional control.
- Training workshops for students and staff.
- Continuous system updates by the ICT/development team.
- Annual maintenance contract covering updates, security, and support.

8. Estimated Cost of Implementation

Summary (total project cost estimate)

- **Estimate:** NGN 3,800,000

Detailed Cost Breakdown (NGN)

1. Project management & requirements analysis — **NGN 250,000**

2. UI/UX design (wireframes, responsive UI kit) — **NGN 150,000**

3. Frontend development (responsive) — **NGN 300,000**

4. Backend development (authentication, roles, APIs, DB) — **NGN 500,000**

5. Course repository & LMS features (uploads, assignments, grading) — **NGN 300,000**

6. Announcements, academic calendar & notifications — **NGN 100,000**

7. Digital directory & office-hours booking — **NGN 100,000**

8. Electronic ID management (software + QR integration) — **NGN 150,000**

9. ID card printer + setup + initial consumables (one-off) — **NGN 250,000**

10. QR code scanners/attendance hardware (optional) — **NGN 150,000**

11. Integration with existing portal & data migration — **NGN 200,000**

12. Security review & penetration testing — **NGN 100,000**

13. Hosting, managed DB & backups (1 year) — **NGN 250,000**

14. SSL certificate & domain (1 year) — **NGN 50,000**

15. Payment gateway integration (setup) — **NGN 150,000**

16. Testing & quality assurance — **NGN 100,000**

17. User training workshops (staff + students) — **NGN 200,000**

18. Documentation & user manuals — **NGN 50,000**

19. Deployment, monitoring & initial support (first 3 months) — **NGN 150,000**

20. Annual maintenance & support (from year 2 onward) — **NGN 300,000**

Totals (implementation + 1 year hosting & initial support)

- **Subtotal:** NGN 3,800,000

Contingency (10%) — strongly recommended:

- +10% = **NGN 4,180,000**

Cost by Implementation Phase

- **Phase 1 — Core Portal (Dashboard, Course Repo/LMS, Announcements, Calendar, Hosting, SSL, QA, Initial Deployment):**

    o NGN 2,905,000

- **Phase 2 — ID System & Integration (Electronic ID software, ID printer, QR hardware, portal integration, security):**

    o NGN 775,000

- **Phase 3 — E-Services & Training (Payment gateway, forms, documentation, training):**

    o NGN 200,000

- **Phase 4 — Ongoing (annual maintenance & support from year 2):**

    o NGN 300,000 (annual recurring)

Optional Add-ons (separate budgets; price estimates)

- Native mobile apps (Android + iOS): **NGN 2,500,000**

- Learning analytics & dashboards: **NGN 300,000**

- Secure online exam/proctoring module: **NGN 400,000**

- Biometric attendance/ID integration: **NGN 500,000**

- SMS gateway for bulk notifications: **NGN 50,000 (setup + top-up)**

Recommended Payment / Delivery Milestones (example)

- **Mobilization / Upfront (20–30%)** on contract signing.

- **Design approval & first demo (30–40%)** after UI/UX & core modules delivered.

- **Deployment & acceptance (20–40%)** after successful deployment to staging/production and UAT.

- **Final sign-off (5–10%)** after 30-day stabilization/support.

Assumptions & Exclusions

- Prices are **estimates** for budgeting only and should be validated with vendor quotes.

- Figures exclude **VAT/government** taxes and third-party transaction fees (payment gateway commissions).

- Hardware costs (printers, scanners) are one-off and dependent on vendor model and import costs.

- Hosting figure assumes moderate traffic (college portal + file storage). Enterprise-grade hosting or CDN will increase hosting costs.

- Integration with third-party legacy systems beyond simple data migration may incur additional costs.

- Annual maintenance is an ongoing cost from year 2 (includes security updates, small feature changes, and hosting management).