BUSINESS PLAN
Commercialization of an Automated System for Examination Timetable, Hall Distribution, and Seat Allocation

Submitted in Support of NASENI Grant Application
Date: October 16, 2025

1. Executive Summary

An indigenous software solution from Nigeria called the Examination Management System (EMS) was developed to reduce inefficiencies in exam scheduling at tertiary educational institutions. EMS, developed and successfully deployed at the Federal Polytechnic, Ilaro, automates three key operations: the creation of exam schedules, the distribution of halls and venues, and the assignment of seats using anti-malpractice logic. For universities, polytechnics, and colleges of education across the country, this business model provides a clear route to commercialising EMS as a scalable, subscription-based service. With a ₦25,747,500 NASENI award and ₦3,500,000 in institutional co-funding, we will implement AEMS in five pilot institutions, create a mobile application, engage stakeholders, and create a long-term revenue stream. EMS is in line with NASENI's mission to grow domestic, market-ready technologies and promotes Nigeria's digital education reform agenda.

2. Company Overview

- **Name**: EMS Commercialization Unit (Hosted at Federal Polytechnic, Ilaro)
- **Location**: Ilaro, Ogun State, Nigeria
- **Vision**: By 2030, to emerge as the top vendor of computerised academic logistics solutions in Nigeria
- **Mission**: To improve accessibility, efficiency, and integrity of exams using locally created, AI-assisted scheduling technology
- **Legal Structure**: Under the Directorate of Research and Development, an institutional innovation unit

3. Problem Statement

Nigerian tertiary institutions frequently encounter difficulties when administering exams. Seat numbering is predictable, which encourages exam misconduct; manual schedule formulation results in staff and course conflicts; and hall allocation is frequently unfair or logistically unmanageable. Because of this, administrative teams have to manage logistics for 60 to 100 hours every cycle, and students are unable to receive seating information in real time. These problems raise operating expenses, lower student satisfaction, and damage academic credibility.

4. Solution: Our EMS Platform

Utilising constraint-satisfaction algorithms, EMS is a safe web-based system that automatically creates conflict-free schedules and allocates exams among halls according to departmental grouping, capacity, and distance. It also offers role-based dashboards for students, instructors, and administrators and randomly assigns seats with audit records to discourage malpractice. Students will be able to view the exam schedule, hall, and seat numbers via a mobile app. At Federal Polytechnic, Ilaro, this solution is already operational. It was created using an open-source stack consisting of Python/Django, PostgreSQL, and React, and it is intended for low-bandwidth settings.

5. Market Analysis

5.1 Target Market

- 43 Federal Universities
- 47 State Universities
- 110+ Polytechnics & Colleges of Education
- Private Tertiary Institutions (~60+)

Total Addressable Market (TAM): 260+ institutions

5.2 Market Drivers

- National policy initiatives (National Universities Commission (NUC), National Board for Technical Education (NBTE), and the Nigerian Certificate in Education (NCCE)) to reform education through digital means
- Students' demand for digital, transparent services
- Cost-saving automation is preferred due to budgetary constraints.
- Growing worries about academic integrity and exam malpractices.

5.3 Competitive Advantage

Feature	EMS	Foreign Alternatives	Manual Process
Local Context Awareness	Yes	No	N/A
Cost (Annual)	₦500k–₦1.5M	₦3M–₦10M+	₦800k+ (labor)
Local Support	24/7 Nigerian team	Offshore	N/A
Mobile Access	(Planned)	Rare	

Malpractice Prevention	Algorithmic randomization	Limited

6. Go-to-Market Strategy

Phase 1: Pilot Deployment (Months 1–6)

- Deploy EMS at five different federal, state, and private institutions.
- Offer setup and training for free.
- Get feedback and improve the user experience.

Phase 2: Commercial Launch (Months 7–12)

- Organize a nationwide stakeholder workshop that includes sessions for all invited stakeholders, including university VCs, Polytechnic/college of education Rectors and Provosts, NUC, NBTE, NCCE, and registrars of all institutions.
- Launch a marketing campaign using brochures, websites, and demo videos.
- Give early adopters a first-year discount of fifty percent.

Phase 3: Scale-Up (Year 2+)

- Introduce **tiered pricing**:
    - **Basic**: ₦500,000/year (timetable + seat allocation)
    - **Premium**: ₦1,500,000/year (+ mobile app, analytics, priority support)
- Partner with **NCCE/NBTE/NUC** for recommended adoption

7. Revenue Model

Revenue Stream	Pricing	Projected Y1 Clients	Y1 Revenue
Basic License	₦500,000	10 institutions	₦5,000,000
Premium License	₦1,500,000	5 institutions	₦7,500,000
Total Y1 Revenue			**₦12,500,000**

Break-even: Achieved by end of Year 2
Profit Margin: ~65% after Year 2 (low marginal cost per new client)

8. Implementation Plan & Budget

Total Project Duration: 12 months
Total Project Cost: **₦29,247,500**

Category	Amount (₦)
Personnel Costs	14,700,000
Software Development & Infrastructure	4,000,000
Pilot Deployment (5 institutions)	3,250,000
Marketing & Stakeholder Engagement	2,200,000
Monitoring & Evaluation	300,000
Contingency (5%)	1,297,500
Total NASENI Request	**25,747,500**
Institutional Contribution	**3,500,000**

9. Management Team

- **Project Lead/System Analyst**: Dr. Mrs Esther O. Oduntan, PhD Computer Science – 15+ years in EdTech
- **Software Developer**: Mr. Ramon Rasheed, Senior Software Engineer – EMS
- **Software Engineer**: Mr. Adegoke Fortunatus, Software Engineer – EMS
- **Programmer:** Mr. Joshua Oduntan, AI and ML Programmer, EMS
- **Project Manager**: Dr. Joshua K. Odeyemi, Certified FMVA, experienced in NASENI projects
- **Advisory Board**: Engr. Dr. Samson A. Odunlami and Dr. Mukail A. Akinde

10. Risk Mitigation

Risk	Mitigation
Low adoption	Free pilots + strong stakeholder engagement
Technical failure	Redundant cloud hosting, offline mode, 24/7 support
Payment delays	Annual upfront billing; MoU with institutions
Competition	First-mover advantage, lower cost, local customization

11. Social Impact

Strengthen the integrity of national examinations. More than 250,000 students will receive the most recent exam material, and pilot institutions will save more than 50,000 staff hours yearly. Establish over ten highly qualified IT jobs in Ilaro and promote "Made-in-Nigeria" innovation as part of the government's plan for economic sustainability.

12. Conclusion & Funding Request

EMS addresses a systemic issue on a national level and offers more than just software. With the help of NASENI, we will turn a tested campus prototype into a profitable, socially conscious business that benefits Nigeria's whole tertiary education system. In order to finance the 12-month commercialization phase, we humbly request for a grant of ₦27,247,500. The digital public good that will be sparked by this investment will be self-sustaining and embody NASENI's mission of "Engineering Innovation for National Development."

Contact:
Dr. Mrs Esther O. Oduntan
Project Coordinator
Federal Polytechnic, Ilaro
Email: [email] | Phone: [number]

Endorsed by:
Office of the Director,
Research and Development,
Federal Polytechnic, Ilaro