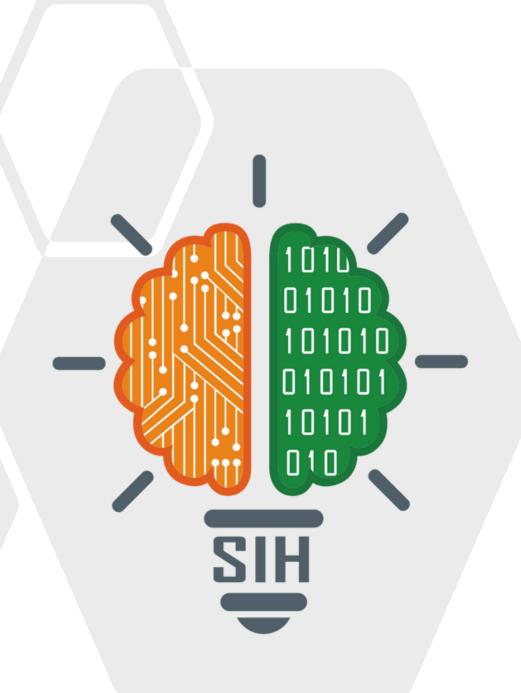# SMART INDIA HACKATHON 2025

TITLE PAGE

- **Problem Statement ID –** SIH25094

- **Problem Statement Title -** One-Stop Personalized Career & Education Advisor

- Theme - Smart Education

- **PS Category -** Software

- Team ID-

- **Team Name -** NeuroNauts

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CounselMate

✅ **Proposed Solution – CounselMate**
- AI-powered virtual counselor for students
- Aptitude quiz + career mapping to suggest paths
- Local govt. college info with smart alerts

✅ **How It Helps**
- Bridges awareness gap for students & parents
- Reduces confusion after Class 10/12
- Boosts govt. college enrollment & reduces dropouts

✅ **Innovation**
- Personalized AI roadmap for every learner
- All-in-one platform (career, courses, colleges)
- Works offline + scalable with visual career journeys

Core Architecture (MERN Stack)

• Platform Build: MERN Stack (MongoDB, Express.js, React.js, Node.js) for scalability & robustness
• Web & Mobile: React.js portal + React Native mobile app for wider accessibility
• Smart Discovery: MongoDB Geospatial queries enable instant, location-based college search

Personalization & Engagement Engine

• AI Microservice: Python (Flask + Scikit-learn) analyzes aptitude data for personalized recommendations
• Career Guidance: Delivers tailored course, college, and career paths to each student
• Real-time Updates: Firebase Cloud Messaging (FCM) pushes alerts on admissions, scholarships & deadlines

IMPACT AND BENEFITS

Our Idea is Backed By:

Government Reports (The "Why"):
Official surveys like the AISHE (All India Survey on Higher Education) show that getting students into college is a major goal. Our project directly addresses this national priority.

Successful Digital Models (The "How"):
We are inspired by the government's National Career Service (NCS) Portal and popular EdTech apps. These platforms prove that digital guidance works. We are simply making it smarter, more personalized, and mobile-friendly for every student.

Proven Technology (The "What"):
Our "Nearby College" feature uses the same powerful location-based technology found in apps like Google Maps. The rest of our platform is built on the MERN stack, a modern and reliable choice used by top tech companies.

FEASIBILITY AND VIABILITY

Feasibility
- Uses existing EdTech tools & AI frameworks → quick to build
- Lightweight app with offline mode → works in rural areas
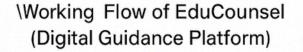- Scalable through govt. school + NGO partnerships

Viability
- Low-cost, sustainable with govt. funding & CSR support
- High adoption potential (students, parents, teachers)
- Long-term impact: better enrollment, reduced dropouts, stronger govt. colleges

RESEARCH AND REFERENCES

- Government Reports & Policies: NEP 2020 (National Education Policy), AICTE/UGC guidelines on skill development & career readiness.

- Industry Insights: NASSCOM & World Economic Forum reports on future skills and employability trends.

- Academic Studies: Research papers on AI in education & student counseling (IEEE, Springer, Elsevier).

- Existing Platforms Analysis: Benchmarked against Byju's, Unacademy, Coursera, and career counseling portals to identify gaps.

- User Validation: Informal surveys with students & faculty at universities to understand challenges in career guidance.

NeuroNauts

\Working Flow of EduCounsel
(Digital Guidance Platform)

User Onboarding
- Student/Parent login (basic profile: name, age, class, location)
- Consent & language preference

Aptitude & Interest Test
- Short quiz (personality, strengths interests)
- AI engine analyzes responses

Personalized Recommendations
- Suggested streams (Arts, Science, Commerce, Vocational)
- Degree-course mapping with career outcomes.
- Scholarships & government schemes displayed

College Discovery
- Nearby Govt. Colleges (location-based)
- Programs available, cut-ofts, facilities, de.

Learning & Resources
- Open-source e-books & materials
- Skill-development modules

Counselor/AI Chat Support
- Students ask doubts
- Hyorid support: AI chatbot + human mentor (if needed)