REQUEST FOR PROPOSAL (RFP)

AI Tools Literacy & Virtual Skill Lab Program for BSc Students

RFP Number: RFP-IAST-2026-BSc-AI-Skills
Issue Date: January 24, 2026
Proposal Due Date: February 15, 2026

Issued by:
Institute of Advanced Science & Technology (IAST)
Department of Data Science & Artificial Intelligence
Bengaluru, Karnataka – 560001

1. Executive Summary

This Request for Proposal (RFP) invites qualified vendors and educational technology providers to submit proposals for the design, development, and implementation of an AI Tools Literacy & Virtual Skill Lab Program tailored for Bachelor of Science (BSc) students across multiple disciplines.

1.1 Purpose

The program aims to bridge the critical gap between theoretical academic knowledge and practical industry-required skills by providing BSc students with hands-on experience in AI-powered tools and platforms that are reshaping modern workplaces, research environments, and higher education.

1.2 Key Program Components

- AI Tools Literacy Training: Practical exposure to industry-standard AI applications
- Virtual Skill Lab: Interactive, self-paced learning environment with real datasets
- Project-Based Learning: Mini-projects aligned with industry use cases
- Auto-Evaluation System: Instant feedback mechanisms for skill assessment
- Career Readiness Module: Portfolio development and placement preparation

2. Background & Market Need

2.1 Current Challenges Faced by BSc Students

- Strong theoretical foundation but limited practical tool exposure
- Curriculum-industry disconnect in rapidly evolving technology landscape
- Insufficient hands-on experience with modern analytical and research tools
- Limited exposure to AI applications in scientific domains

2.2 Industry Expectations

According to recent industry surveys, 78% of employers prioritize candidates with practical tool experience over pure theoretical knowledge. AI literacy is becoming a baseline requirement across sectors including pharmaceuticals, research, finance, and technology.

2.3 Gap Analysis

Current State	Desired State
Theory-heavy curriculum with limited practical application	Balanced theory-practice integration
Disconnected lab sessions focused on basic software	Continuous access to modern tools and learning resources
Students graduate without exposure to current industry tools	Graduates with demonstrable AI tool literacy
Learning limited to classroom hours and prescribed syllabus	Self-directed learning culture with institutional support

3. Proposed Solution

3.1 Program Overview

The AI Tools Literacy & Virtual Skill Lab Program is a comprehensive, practice-driven learning ecosystem designed to complement existing BSc curricula without disrupting core academic schedules.

3.2 Core Philosophy

"Learn by Doing, Not Just Knowing"

Unlike traditional courses that prioritize content coverage, this program emphasizes hands-on experimentation over passive learning, real-world problem-solving over theoretical exercises, tool mastery through repeated practice, and portfolio building through project completion.

3.3 Dual-Track Approach

TRACK 1: AI Tools Literacy Program

A structured introduction to AI-powered productivity and analytical tools used across industries.

- Tool familiarization workshops (2-3 hours per tool)
- Use-case driven tutorials
- Guided exercises with real scenarios
- Self-assessment quizzes
- Tool selection guidance for different tasks

TRACK 2: Virtual Skill Lab

An always-accessible digital laboratory where students apply learned concepts.

- Cloud-based learning environment
- Pre-configured notebooks and datasets
- Progressive difficulty levels (Beginner to Advanced)
- Auto-graded assignments
- Peer collaboration spaces
- Industry-style mini-projects

4. Program Objectives

4.1 Learning Objectives

By the end of this program, students will be able to:

- Effectively use ChatGPT and similar AI assistants for research, coding support, and content creation
- Create meaningful visualizations using Power BI, Looker Studio, or similar platforms
- Write and debug basic Python code with AI assistance
- Use GitHub for version control and portfolio development
- Implement AutoML solutions for predictive modeling
- Organize and document projects using modern collaboration platforms

4.2 Career Readiness Objectives

- Build a portfolio of 5-8 completed projects demonstrating practical skills
- Develop confidence in using industry-standard tools
- Understand job market expectations for BSc graduates
- Prepare for technical interviews and skills assessments
- Create professional online presence (GitHub profile, project showcases)

5. Target Audience

5.1 Primary Beneficiaries

- BSc Computer Science: Programming with AI assistance, software development workflows
- BSc Data Science/Statistics: Statistical analysis tools, data visualization, ML automation
- BSc Mathematics: Computational mathematics, data analysis, visualization
- BSc Physics/Chemistry/Biology: Research data analysis, scientific computing, lab data visualization
- BSc General Science: Cross-disciplinary tool applications, research skills, data literacy

5.2 Expected Enrollment

Pilot Phase: 100-200 students

Full Implementation: 500-1000 students per academic year

6. Program Structure & Delivery Model

6.1 Duration & Timeline

Total Program Duration: 6 months (flexible, self-paced)

Weekly Time Commitment: 3-5 hours

Total Learning Hours: 60-80 hours

6.2 Module Breakdown

- Module 1: Introduction to AI Tools (Week 1-2)
- Module 2: ChatGPT & Conversational AI (Week 3-4)
- Module 3: Data Visualization Tools (Week 5-7)
- Module 4: Productivity & Collaboration (Week 8-9)
- Module 5: Programming with AI Assistance (Week 10-13)
- Module 6: AutoML & No-Code AI (Week 14-16)
- Module 7: Capstone Projects (Week 17-24)

6.3 Assessment & Certification

- Module quizzes (20%)
- Practical assignments (30%)
- Mini-projects (25%)
- Capstone project (25%)

Certification Levels:

- Bronze: Completion of 60% modules + 3 mini-projects
- Silver: Completion of 80% modules + 5 mini-projects + capstone
- Gold: Completion of 100% modules + all projects + peer mentoring

7. Tools & Technologies Used

7.1 AI-Powered Tools

- ChatGPT (OpenAI): Research, coding, writing assistance
- Claude (Anthropic): Document analysis, long-form content
- Gemini (Google): Integration with Google workspace

7.2 Data Analysis & Visualization

- Power BI (Microsoft): Interactive dashboards
- Looker Studio (Google): Data visualization
- Tableau Public: Advanced visualizations
- Excel Advanced (with AI features)

7.3 Programming & Development

- GitHub Copilot: Code completion and suggestions
- Replit: Online IDE with AI assistance
- Jupyter Notebooks: Interactive coding environment
- GitHub: Code repository and portfolio
- Google Colab: Cloud-based notebooks

7.4 AutoML & No-Code Platforms

- Google AutoML: Automated machine learning
- Orange Data Mining: Visual programming
- KNIME: Workflow-based analytics
- Teachable Machine: Quick ML prototypes

8. Expected Outcomes & Benefits

8.1 Student Outcomes

- Proficiency in 5-8 industry-standard AI and analytical tools
- Portfolio of 5-8 completed projects demonstrating competencies
- Improved quality of assignments and project work

- Enhanced presentation and communication skills
- Competitive advantage in placement processes
- Foundation for professional certifications

8.2 Institutional Benefits

- Enhanced reputation as a forward-thinking institution
- Improved placement statistics (target: 15-20% increase)
- Higher average salary packages
- Attractive program feature for prospective students
- Alignment with NEP 2020 and accreditation standards
- Stronger employer relationships

8.3 Measurable Success Metrics

Metric Category	Key Indicators
Skill Acquisition	Completion rates, assessment scores, tool proficiency
Engagement	Platform usage, forum participation, project submissions
Career Impact	Placement rate, salary data, internship acquisition
Satisfaction	NPS surveys, course ratings, faculty feedback
Institutional	Enrollment growth, ranking improvements, partnerships

9. Market Relevance & Competitive Advantage

9.1 Alignment with Educational Trends

- National Education Policy (NEP) 2020: Emphasis on experiential learning and skill development
- Outcome-Based Education (OBE): Clear learning outcomes and competencies
- Industry 4.0: Preparation for AI-augmented workplaces
- Digital Literacy: Essential skill for modern workforce

9.2 Competitive Advantages

- BSc-Specific Design: Unlike generic bootcamps, tailored for science students
- Curriculum Integration: Complements existing BSc curriculum
- Tool-First Approach: Focus on practical utility rather than theory
- Low Barrier to Entry: No prerequisites beyond basic computer literacy
- Institutional Support: Official recognition through certificates
- Cost-Effectiveness: One-time institutional investment, reusable content

10. Implementation Timeline

Phase	Duration	Key Activities
Phase 1: Planning	Months 1-2	Vendor selection, stakeholder consultations, infrastructure setup
Phase 2: Pilot Launch	Months 3-5	Pilot cohort (100-200 students), monitoring, feedback
Phase 3: Evaluation	Month 6	Assessment, refinements, success metrics analysis
Phase 4: Full Rollout	Months 7-8	Expand to 500+ students, enhanced support
Phase 5: Continuous Improvement	Ongoing	Quarterly updates, annual reviews, content refresh

11. Vendor Requirements & Qualifications

11.1 Mandatory Requirements

- Minimum 3 years experience in educational technology delivery
- Prior implementation of similar programs in higher education
- Cloud-based, scalable learning platform
- Integration capabilities with existing institutional systems
- Comprehensive content library (60+ hours)
- Educational licenses for all required tools
- Technical support and student helpdesk services
- 99.5% uptime guarantee

11.2 Desirable Qualifications

- ISO 27001 or equivalent security certification
- Experience with BSc programs specifically
- Mobile app availability (iOS/Android)
- AI-powered chatbot for student support
- Analytics dashboard for administrators
- Partnerships with Microsoft, Google, or AWS

11.3 Deliverables Expected

- Fully configured learning management system
- Video tutorials (60-80 hours total)
- Interactive exercises (100+ activities)
- Real-world datasets and case studies

- Assessment materials with auto-grading
- Faculty training program (2-day workshop)
- Student onboarding materials
- Technical support SLA
- Analytics and reporting tools

12. Evaluation Criteria

Criteria	Weight
Technical Solution Quality	25%
Content Relevance & Quality	20%
Implementation Experience	15%
Cost & Value for Money	15%
Support Services	10%
Scalability & Future-Proofing	10%
References & Past Performance	5%

12.1 Scoring Methodology

Each criterion will be scored on a scale of 1-10, multiplied by the weight to get the weighted score. Total possible score: 100 points. Minimum qualifying score: 70 points.

13. Proposal Submission Guidelines

13.1 Proposal Components

- 1. Company Profile & Credentials
- 2. Technical Proposal (platform, content, tools)
- 3. Commercial Proposal (pricing, payment terms)
- 4. Past Performance (case studies, references)
- 5. Implementation Plan (timeline, resources)

13.2 Submission Details

Proposal Deadline: February 15, 2026, 5:00 PM IST

Submission Method:

- • Email: procurement@institution.iast
- • Subject Line: RFP Response - AI Tools Literacy Program
- • Format: PDF (maximum 50 pages excluding appendices)

END OF REQUEST FOR PROPOSAL

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