Global Developer Corps (GDC) Artificial Intelligence Workforce Scheme Document 2024-2029

1. Foreword

AICTE, along with Pupilfirst played a pioneering role in creating the United Nations recognized Digital Public Good “CARE” by initiating the Global Developer Corps (GDC) programme to identify and train the brightest engineering students. AICTE GDC fellows from the batch 2021 created the Oxygen Dashboards for COVID-19 War Rooms during the delta wave crisis of May 2021. The batch 2022 expanded the capabilities to create the TeleICU systems now deployed in 206 district hospitals across nine states.

With the advent of ChatGPT, a new technological era in artificial intelligence (AI) has started. The batch 2023 GDC Fellows worked with Open AI and industry partners to upgrade CARE with AI features that will transform the delivery of healthcare services to citizens. The United Nations has recognized the work done by GDC Fellows as the world's 50th Digital Public Good (DPG).

The National Health Mission has requested to scale up the fellowships to support the rollout of CARE as a Palliative Care Grid, showing the large-scale demand for students with AI skill sets. The success of the GDC Fellowships has opened up the potential to scale this model into a GDC AI Workforce scheme for creating an AI workforce of 100,000 highly skilled engineers over five years, who can work as nation builders and bring the transformative effects of the AI revolution in society.

2. Scheme Objectives:

The GDC AI Workforce Scheme has two objectives set for achievement over 5 years:

- Create a workforce of **One Lakh** skilled in working with AI to create and upgrade Digital Public Infrastructure and Goods.
- Build capabilities to transform aspects of the teaching-learning process with Artificial Intelligence to enable scale and relevance to the future.

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2.1 Eligibility

All Students of AICTE-approved institutions in Engineering and Technology.

2.2 Pedagogy and Assessments

Content based on AICTE’s model curriculum following NEP Learner-centered pedagogy, with self-paced learning via video tutorials, real-world applications as capstone projects, and continuous and personalized assessments.

2.3 Internships

Opportunities shall be provided for those students after successful completion of the course with organizations like the eGovernance Foundation, National Health Mission and other identified partners for at least one semester of full-time internships.

2.4 Certificates

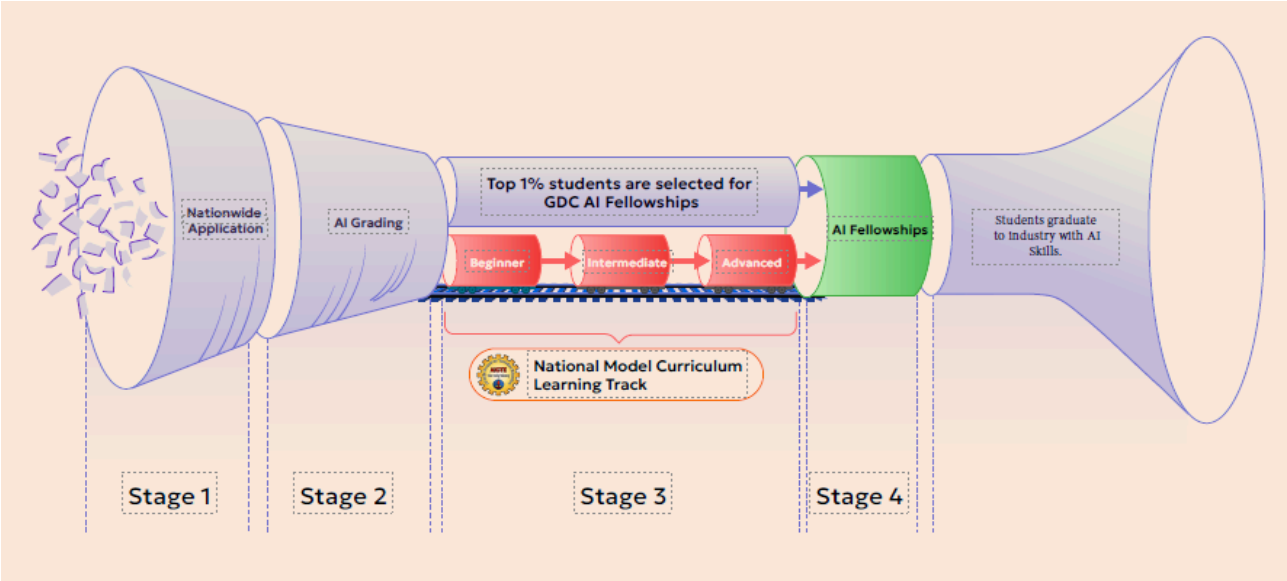
Students who complete the training and internship programme successfully shall receive an GDC AI workforce Fellow Certificate. {Draft Format in Annexure - 1}

2.5 Credits

Students will also be issued credits based on the National Credit Framework (NCrF) for their internship from the onboarded partner institution(s)

3. Four-stage process

A four-stage process covers the various stages, from Applications to AI Grading, Testing and Screening, Selection into Fellowship or Learning Track, and Internships with Industry.



Stage 1 – Submission of Application

All students interested in participating shall apply through the online portal setup by Pupilfirst.

Stage 2 - AI Grading and Personal Interview

AI-based tests built on ChatGPT 4 would create personalised questions based on the student's resume and cover foundational programming questions and logical reasoning. All students who score above a defined threshold will be selected for interviews to secure admission into the Fellowship Track.

Stage 3: Selection into Fellowship Track or Learning Track

Based on interview results from Stage 2, students shall be offered two study tracks.

1. The Fellowship Track shall be offered to those who clear the AI test and interviews. Those who complete the training and finish the six-month internship shall qualify for the GDC AI workforce Fellow Certificate.

2. The Learning Track shall be offered to those who do not qualify from either the test or the interviews but have a strong interest in learning these skills.

Students learn the content based AICTE Model Curriculum in both tracks but at very different paces.

- The fellowship track shall admit highly motivated students and must be completed within 14 weeks.
- In the learning track, students shall be provided with sustained motivation and an AI-powered learning environment using the AICTE Model Curriculum. They can complete the curriculum within four semesters.
- Pupilfirst, along with selected faculty members and industry experts shall support teaching, feedback, and assessments.

Stage 4: Internships

The brightest students from the fellowship track shall be offered a six-month internship in digital mode with GDC partner organizations, such as the eGovernance Foundation or the National Health Mission, to build and upgrade Digital Public Infrastructure and Goods with AI Features.

4. Roles and Responsibilities

4.1 AICTE

Issuance of circular and notifications as and when as deemed to be to sensitize the stakeholders regarding GDC scheme and calendar of events.

4.2 PupilFirst

Maintenance of portal pertaining to registration of students, conduct of test and interviews, monitoring of student learning and its assessment, coordination with external organization for internship.

5. Administrative Guidelines

5.1. Mission Mode Implementation

NEP 2020 outlines the need to identify *disruptive technologies* that could change the education paradigm. As artificial intelligence is experiencing explosive growth, AICTE shall encourage GDC scheme.

a. **Students from All Branches:** Students from all branches of study across all tiers are eligible to apply.

b. **Special Focus on Under-Represented Areas:** preference shall be extended to students from Tier 2, 3, and 4 towns and villages, along with students from the North East Region, J&K, and Union Territories of the nation.

c. **Women and SEDG**: As far as possible and applicable, 50% of the students shall be women from socially and economically disadvantaged groups.

d. **Integration with Swayam:** Pupilfirst shall work with AICTE Swayam team to integrate basic and introductory courses with the Swayam platform.

e. **Mission Dashboard:** Pupilfirst shall provide AICTE with a mission dashboard with the details of all applicants and their progress status across states and institutions.

f. **Increasing Industry Partners:** AICTE and Pupilfirst shall work together to increase the number of organizations growing internships.

4.2 GDC Industry Advisory Board

A eight-member interdisciplinary team comprising leaders with experience in building and scaling Digital Public Goods and Infrastructure shall work together under the leadership of the Chairman, AICTE, in the following roles.

Sl	Name, Organization and Credential	Role
1	Prof. T. G. Sitharam Chairman, AICTE	Setting Goals and Targets.
2	Srikanth Nadhamuni, eGoverance Foundation Founding CTO of Aadhaar	Chief Technology Mentor,

		GDC AI Workforce
3	Pramod Varma, EkStep Foundation Chief Architect, Aadhaar and India Stack DPI	Chief DPI Mentor, GDC AI Workforce
4	Sridhar Vembu, ZOHO Corporation Member, National Security Advisory Group	Chief Security Mentor, GDC AI Workforce
5	Sandeep Singhal, Venture Philanthropist Board Member, ACT Grants	Chief Philanthropy Mentor GDC AI Workforce
6	Narayan Ramaswamy, SGM ADNOC and Director General, Bharat Tech Foundation	Chief Industry Connect GDC AI Workforce
7	Dr Leena Chandran-Wadia, TransDisciplinary University Member, Drafting Committee of National Educational Policy	Chief Researcher GDC AI Workforce
8	Sanjay Vijayakumar, Co-founder Pupilfirst	Lead on-ground execution

*New members may be added as required by the competent authority.

4.3 Funding - Scholarships, Stipends and Fees

Fellowship Stipend: AICTE and PupilFirst shall encourage leading global technology companies, foundations, corporations, and philanthropists to scale up their support to GDC Fellowships.

Scholarships for Selected Students who belong to SEDG: Pupilfirst would ensure that 25% of students from socially and economically disadvantaged groups (SEDG) get full-fee waiver scholarships.

Fees:
Pupilfirst has been recognized by AICTE through NEAT to provide training and certification to students in the domains of Web technologies for SaaS and Primer course to electric vehicle To ensure the program's long-term sustainability, Pupilfirst offers the courses at 399Rs per month.

The fee structure shall remain the same for students who have enrolled.

Pupilfirst shall continuously review students' learning progress, improvements in teaching-learning pedagogy, assessments, credit issuance, internship performance and fee structure, and fine-tune the model to achieve the mission goals and shall be submitting a scheme progress report to AICTE on quarterly basis.

6. Span of Activity and Key Outcomes Expected

Span of Activity: The scheme would be implemented over five years from 2024-2029

Key Outcomes Expected

1. Create AI Workforce of One Lakh Students trained in full stack development and AI skillset

2. Showcase NEP's core principles of learner-centred pedagogy and continuous and personalised assessments through the use of AI and utilizing platforms such as ABC/APAR/NDEAR.

3. Make a Societal impact by enabling the National Health Mission and other partners to deploy the United Nations-approved Digital Public Good, "CARE," across all 35 States and UTs.

4. Elevate India's software power by taking DPGs globally to partner countries.

Note: The scheme shall be run on mission mode with online reviews during the first week of each month by the Competent Authority and GDC Industry Advisory Group to ensure that the roadmap for execution is aligned with the NEP and Industry Developments in AI.

Annexure 1 - Sample of GDC AI Workforce Fellowship Certificate

