PROSPECTUS – 2025

Admission to

Certificate Programme

on

AI for Non-AI Specialists

Last Date of Submitting e-Applications: 30th June 2025

Department of Media Engineering

National Institute of Technical Teachers Training and Research

(Deemed to be University Under Distinct Category)

Sector – 26, Chandigarh – 160 019

Phone: 0172-2759593; 0172-2759785

Website: www.nitttrchd.ac.in

April 2025

Salient Features

1. **Duration of the Programme:** 01 Month (5 days a week)
2. **Date of Commencement of the Classes:** Monday, 27th October 2025
3. **Entry Qualification:** Minimum qualification of 10+2
4. **Number of Seats:** 30 (Allocated on a First-Come, First-Served basis; the total number of seats may be subject to increase or decrease at the discretion of the competent authority)
5. **Programme Structure:** Multi Point Entry and Exit in alignment with the National Education Policy (NEP) 2020
6. **Mode of Delivery:**
    a. Online Mode: Participants shall attend sessions five days a week from their own location.
    b. Contact/Offline Mode: Participants shall attend sessions five days a week in person at the NITTTR Campus.
7. **Fee Structure:**
    a. Online Mode: INR 5,000/- per Individual Module
    b. Contact/Offline Mode: INR 6,000/- per Individual Module (including working lunch and tea twice a day)

    Note:

    - Boarding and lodging expenses, if required, are to be borne by the participants. Accommodation in the Institute's guest house may be availed on a first-come, first-served basis, as per the rates prescribed by the Institute.
8. **Evaluation Scheme:**
    a. Formative Assessment: Continuous assessment through daily practice tasks.
    b. Summative Assessment:
        i. Upon successful completion of each module, participants will be awarded a Module Completion Certificate
        ii. Upon successful completion of the entire programme, participants will be awarded a Programme Completion Certificate.

Program Outcomes

After undergoing the Certificate Programme on "AI for Non-AI Specialists", learners will be able to:

PO1: Understand basic AI concepts, techniques, and real-world applications.

PO2: Apply AI tools and generative technologies in content creation, problem-solving, and decision-making.

PO3: Analyse ethical implications, algorithmic bias, and human-AI interaction challenges.

PO4: Evaluate the effectiveness and limitations of AI technologies across industries.

PO5: Create AI-powered solutions using no-code tools for personal or professional needs.

Module 1: What is AI and How It Works

Rationale

This module builds a strong foundational understanding of AI's core concepts, its real-world applications, and basic hands-on exposure to predictive modelling and large language models, critical for non-technical users to appreciate how AI influences everyday life.

Learning Outcomes (LO)

By the end of Module 1, learners will be able to:

- **LO1:** Understand the basic concepts of Artificial Intelligence.
- **LO2:** Explain how AI learns using data and patterns.
- **LO3:** Apply basic predictive modelling concepts.
- **LO4:** Identify real-world use cases of NLP and computer vision
- **LO5:** Analyse different Large Language Models (LLMs) and their applications

Contents:

1. History, Evolution, Myths vs. Realities of AI
2. Machine Learning vs. Deep Learning Basics, AI vs. Automation vs. Analytics
3. AI in daily life, Practical Applications of AI-Education, Healthcare, Business, etc.
4. Human-AI Integration and Predictive Modelling Concepts
5. Basics of Natural Language Processing (NLP) and Computer Vision
6. Introduction to Large Language Models (LLMs) and Application Programming Interfaces (APIs)
7. Hands-on with Simple AI Systems

Practice Tasks

1. Matching real-world problems to AI solutions.
2. Differentiating ML, DL, and rule-based approaches with examples.
3. Building and testing a simple prediction model.
4. Analysing and comparing NLP tools.
5. Creating mini chatbot using an LLM Application Programming Interface (API).

Module 2: Creating with AI – Generative Tools and Prompting

Rationale

This module focuses on empowering learners to harness the creative potential of generative AI by introducing prompt engineering and popular tools, enabling them to co-create diverse content and understand the principles behind AI-generated media.

Learning Outcomes (LO)

By the end of Module 2, learners will be able to:

LO1: Understand the basics of generative AI.

LO2: Explore the use of popular generative AI Tools.

LO3: Learn the basics of Prompt Engineering.

LO4: Develop effective prompts for content generation.

Contents

1. Introduction to Generative AI (Text, Images, Music, Code)
2. Technologies behind Generative AI (Transformers, Diffusion Models)
3. Basics of Prompt Engineering, Refining and Structuring Effective Prompts
4. Generative AI in Media, Design, and Marketing
5. Educational and Productivity Applications
6. Generative AI for Coding and Development
7. Ethical Considerations in AI-Generated Content
8. Copyright and Licensing Issues (Creative Commons, Fair Use)
9. Evaluating Quality and Authenticity in AI Outputs

Practice Tasks

1. Creating short creative outputs (story, poster, slogan) using AI.
2. Experimenting with prompts to refine outputs.
3. Producing blog posts or visual presentations with AI tools.
4. Generating non-text outputs (music clip, short AI video).
5. Sharing views on trusting AI content.

Module 3: Responsible AI and Implementation Strategies

Rationale

As AI use expands, ethical, fairness, and accountability issues grow critical. This module trains learners to recognize and mitigate AI-related risks, building a mindset of responsible and inclusive AI usage.

Learning Outcomes (LO)

By the end of Module 3, learners will be able to:

LO1: Understand ethical risks and fairness concerns in AI.

LO2: Analyse algorithmic bias and trust issues.

LO3: Apply strategies for responsible AI use in personal/professional life.

Contents

1. AI Ethics: Privacy, Surveillance, and Automation Risks
2. Case Studies: Failures and Controversies in AI
3. Sources and Impacts of Algorithmic Bias
4. Designing for Fairness and Inclusivity
5. Explainability and Transparency in AI
6. Building User Trust with AI Systems
7. Human-AI Collaboration and Augmentation
8. Responsibility and Accountability in AI Decisions
9. Governance, Policy, and Checklists for Ethical AI
10. Cultural Sensitivity in AI Applications

Practice Tasks

1. Analysing and critiquing AI-related news stories.
2. Identifying biased outputs and redesigning them for fairness.
3. Evaluating transparency features of different AI tools.
4. Discussing responsibility in flawed AI decisions.
5. Designing ethical AI implementation plan for an organization.

Module 4: Using No-Code AI Tools in Real Life

Rationale

AI adoption should be inclusive. This module introduces no-code tools, empowering learners without technical backgrounds to confidently integrate AI into real-world tasks, projects, and entrepreneurial ventures.

Learning Outcomes (LO)

By the end of Module 4, learners will be able to:

- **LO1:** Understand the concept and benefits of No-Code AI Platforms.
- **LO2:** Explore popular No-Code AI Tools and Platforms.
- **LO3:** Apply No-Code AI to solve real-life problems.
- **LO4:** Design small-scale projects using accessible AI platforms.

Contents

1. AI Applications Across Industries
2. No-Code Writing and Editing AI Tools
3. AI Tools for Presentation and Research
4. Data Automation and Insight Platforms
5. Visual, Voice, and Video Creation Tools
6. Evaluation Metrics for Selecting AI Tools
7. Limitations, Bias, and Ethics in No-Code Tools
8. Peer Collaboration Using AI
9. Planning and Presenting AI-Enabled Projects

Practice Tasks

1. Exploring AI's impact in a chosen industry and presenting findings.
2. Creating reports and presentations with AI.
3. Building a basic marketing campaign with AI tools.
4. Peer-reviewing and critiquing selected AI tools.
5. Completing capstone project proposing AI solution for personal or workplace use.