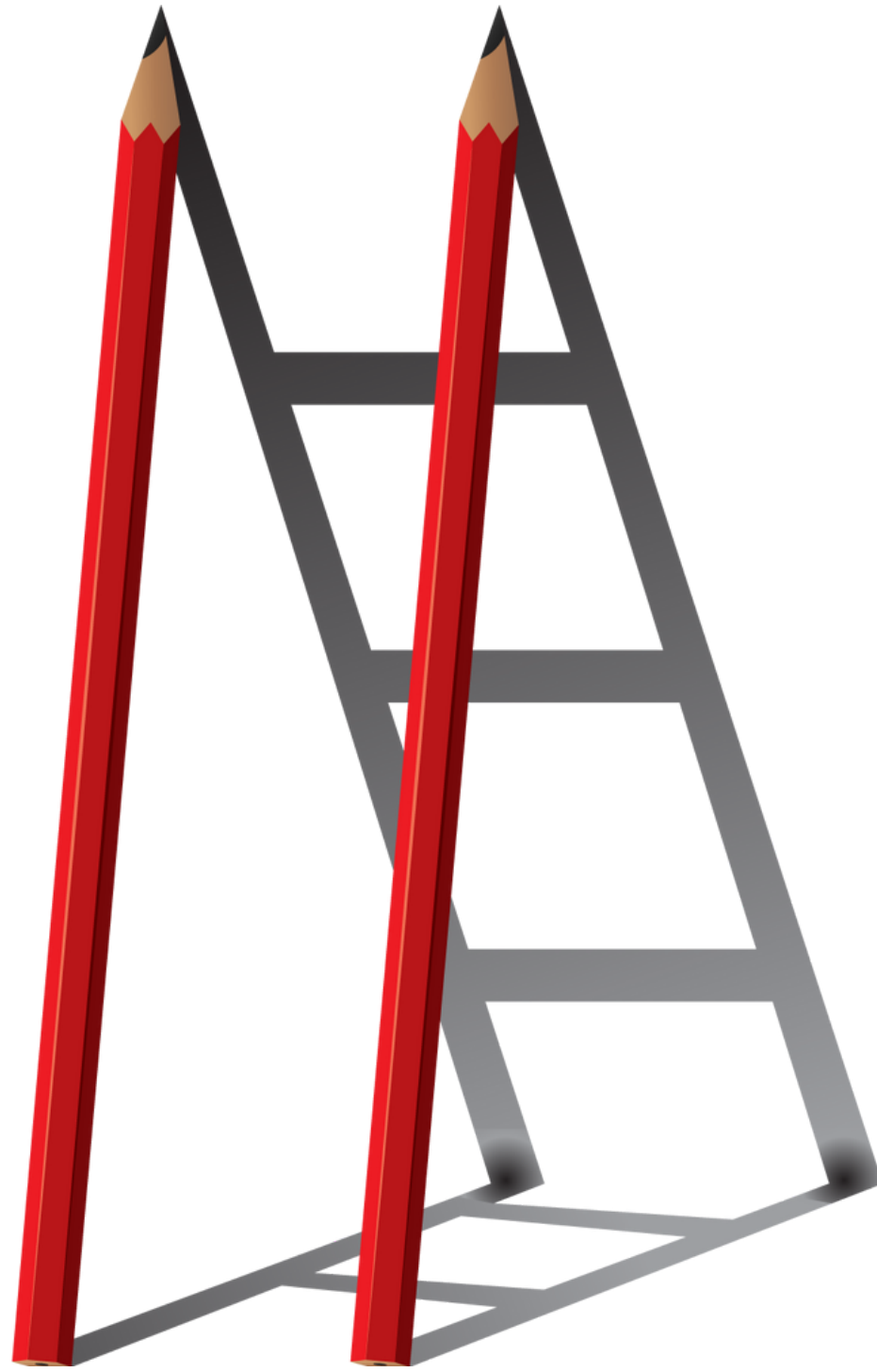




भारतीय प्रौद्योगिकी संस्थान दिल्ली  
Indian Institute of Technology Delhi



# CERTIFICATE PROGRAMME IN DESIGN THINKING AND INNOVATION

Starts Aug 14,2023 | 16 Weeks | Online Sessions

Programme offered by Continuing Education Programme (CEP), IIT Delhi

# OVERVIEW

Design thinking, a human-centred approach to innovation, works on integrating user needs, technological possibilities, and the requirements for business success. When coupled with innovation, it can be a powerful competitive advantage for any business - big and small. It's no wonder that design thinking and innovation capability has become a significant differentiator in today's marketplace!

To meet this demand, the Indian Institute of Technology Delhi (IIT Delhi) has designed the 6-month online **Certificate Programme in Design Thinking and Innovation**. This high-impact programme will enable you to effectively drive innovation, growth, and customer experience with a cutting-edge curriculum and enriching insights from leading IIT Delhi faculty and industry experts.

**Design thinking can deliver twice as fast the business outcomes to market, 32% higher revenue than traditional organisations, and ultimately outperform the S&P 500 by 211%.**

***Source: IBM, 2021***



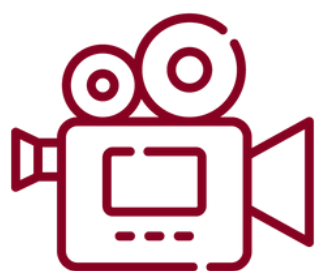
# WHO IS THIS PROGRAMME FOR?

This programme is specially curated for:

- Designers & Design Engineers, Creative Managers, Art Directors & UX Designers wanting to gain expertise in developing innovative customer-centric solutions
- Entrepreneurs and Business Owners who aim to scale their businesses and create social impact through customer-centric innovations
- Innovation and Growth Consultants keen on enhancing their clients' business with design thinking and innovation
- Product, Marketing, Branding, Growth, and R&D Managers who would like to use design thinking to develop innovative products for business impact
- Senior Managers and Business Heads tasked with driving innovation success in their businesses and generating solutions for challenging problems
- Rural Entrepreneurs, Small & Medium Enterprises & Professionals from the Development Sector



# PROGRAMME HIGHLIGHTS



**150+**  
**Engaging Video  
Lectures**



**15+**  
**Innovative  
Assignments**



**10+**  
**Short Quizzes**



**2**  
**Weekly Office Hours  
with Faculty**



**3**  
**Live Faculty  
Webinars**



**1**  
**Capstone Adventure  
Project**

*Note: The final number of quizzes, assignments, case studies and live lectures will be confirmed closer to the programme start. Details of Weekly Office Hours with Faculty (Online) would be sent to selected participants as part of Academic Orientation.*

# PROGRAMME MODULES

## Module 1: Introduction to Human-centred Design (HCD)

- The Paradox of Our Age
- The Principles of Co-Learning
- A Shift in Being
- What Design is Not
- What is Design
- Key Concepts of Design
- A Simplified Understanding of Design
- A Simplified Process of Design

## Module 3: Context, Environment and Users

- Review - Double Diamond and Abstract-Tangible Cycle
- Ethnographic Research
- Participatory Research
- Evaluative Research
- Clean Team Case Study
- Effective Research for HCD
- Design in the World
- User Context
- Mis-design Around Us
- Who are your Users?
- Visible and Invisible Users
- Hybrid Model of Research
- Re-defining the Problem

## Module 5: Ideation and Immersion

- Creative Ideation and Pattern Recognition
- Developing Creative Habits
- Creative Thinking Techniques
- SCAMPER
- Brainstorming Tools
- The Importance of True Immersion
- Immersive Learning
- Immersive Experience in the Design Process
- Mindful Design
- Automobile Design Process
- Design DNA and Moodboards

## Module 2: HCD and Innovation

- Understanding Purpose
- Letting Go of What Holds Us Back
- What is Creativity?
- Thinking Differently
- Basic Rules of Design Thinking
- The Creativity Heart Set
- Everyone is a Designer
- Double Diamond and Abstract-Tangible Cycle

## Module 4: Identifying User Needs

- Empathy Map Canvas
- Hearing the Unsaid
- Designing for Extreme Users
- Why is Creativity Becoming More Important?
- PLATOS Case Study
- Understanding Uncommunicative Users
- Waterless Urinal Case Study
- The Changing Wish-List
- The User Value Proposition
- Doing the Homework - Ecosystem
- Needs vs. Wants

## Module 4: Identifying User Needs

- Stories vs. Narrations
- Storytellers Across Time and Cultures
- Experimental Storytelling
- Storytelling in Research
- Rural Storytelling Case Study
- Storytelling in Design
- Brand Stories
- The Importance of Visuals and Visualisation
- Visualising Human Experiences
- Storyboarding or Image Boarding

*Note: Modules/ topics are indicative only, and the suggested time and sequence may be dropped/ modified/ adapted to fit the total programme hours.*

# PROGRAMME MODULES

## Module 7: Iterative Design and Sustainability

- Why Iterative Design?
- Iterative Design Process
- Waterless Urinal Cubicle Case Study
- Research as a Tool
- Handloom Case Study
- Types of Sustainability
- Sustainability in Action
- Immersive Research Case Study
- Non-Immersive Research Case Study

## Module 9: Agile Design and Data-driven Innovation

- What is Lean and Agile?
- Agile within Design
- Designing Agile Processes
- Electric Motor Case Study
- What is Data-driven Innovation
- Data-driven Innovation and Design
- ML Lifecycle vs. Design Lifecycle
- Generative Design and Nature-inspired Computing

## Module 11: Innovation Project Lifecycle and Innovation Management Tools

- Lean Management Principles
- Logical and Creative Thinking
- Product Implementation Lifecycle
- Types of Innovation
- Roadblocks to Idea Generation and Implementation
- Strategies for Whole Brain Thinking
- Design Management

## Module 13: Designing for Change

- Elements of Organisational Culture
- Organisational Change Through Design
- Storytelling for Organisational Transformation
- Context Canvas
- Defining the Challenge - Technical vs Adaptive
- What are Rituals?
- Co-designing Rituals
- Celebrating Rituals and Sustaining Rituals

## Module 8: MVP and NPD

- What is Minimum Value?
- Identifying the MVP
- Rural ATM Case Study
- Prototyping as a Tool
- Critical Stages in Prototyping
- Stages in New Product Development
- Types of Prototypes
- Case Study - Children during the Covid-19 Lockdown

## Module 10: Integrating Design, Technology and Business

- Introduction to Project Management Methodologies
- Scrum, Kanban, and Scrumban
- Example from UI/UX Industry
- Example from Finance Industry
- Customer Segmentation and Innovation
- Design and Systems Thinking
- Design and Systems Thinking Working Harmoniously
- Business Design
- Contributions of a Business Designer

## Module 12: Innovation Strategies and Taking Ideas to Market

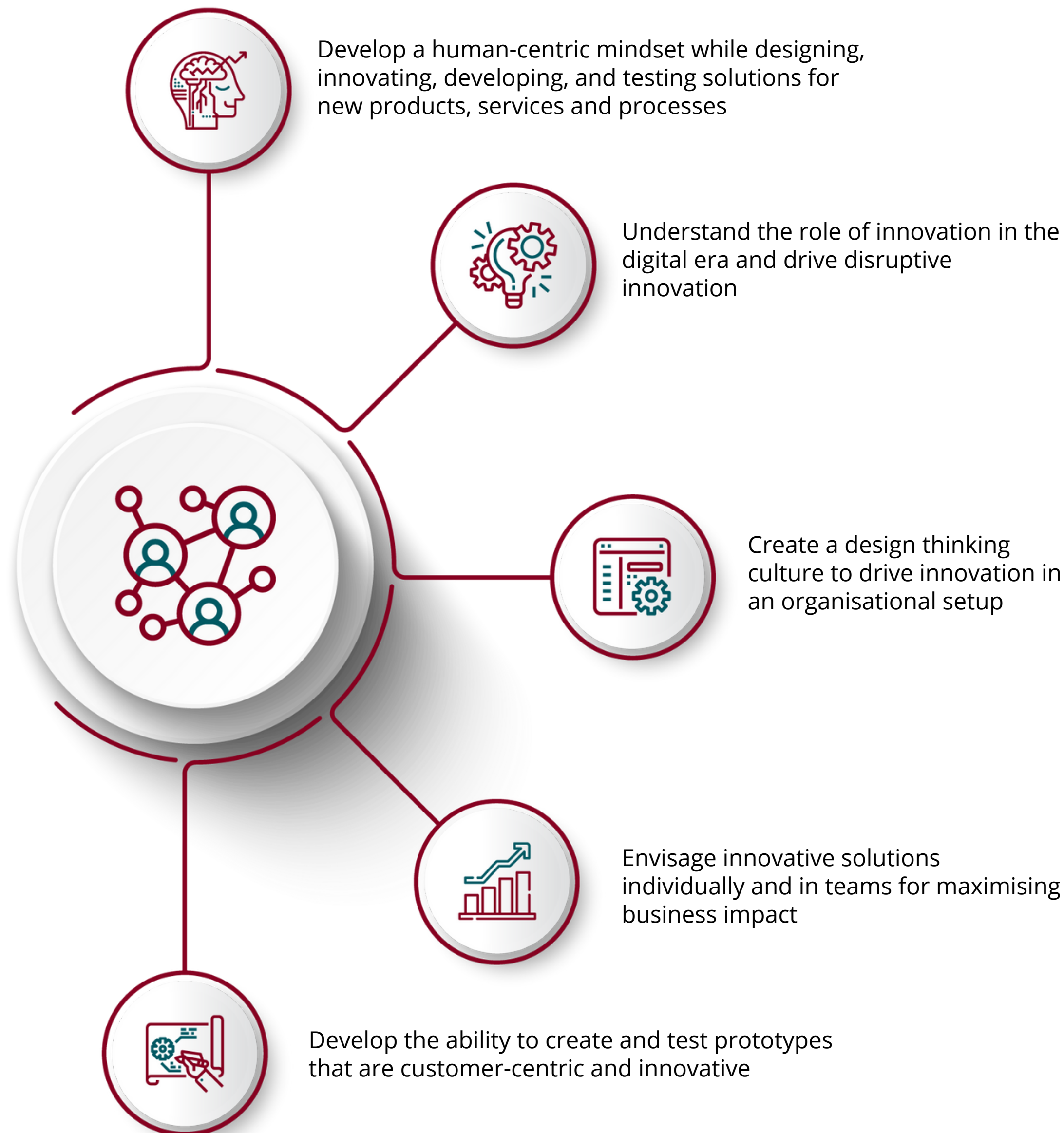
- What is Intrapreneurship?
- Entrepreneurship in Organisations Innovation Strategies
- Frugal Innovation Strategies
- Challenging Assumptions
- Safeguarding Your Innovation

## Module 14: Design for Leading

- What Leadership is Not
- Leadership and Commitment
- The Triad of Leadership
- Operating from your Being
- Leading with Purpose
- Inspiring People
- The World is Your Playground

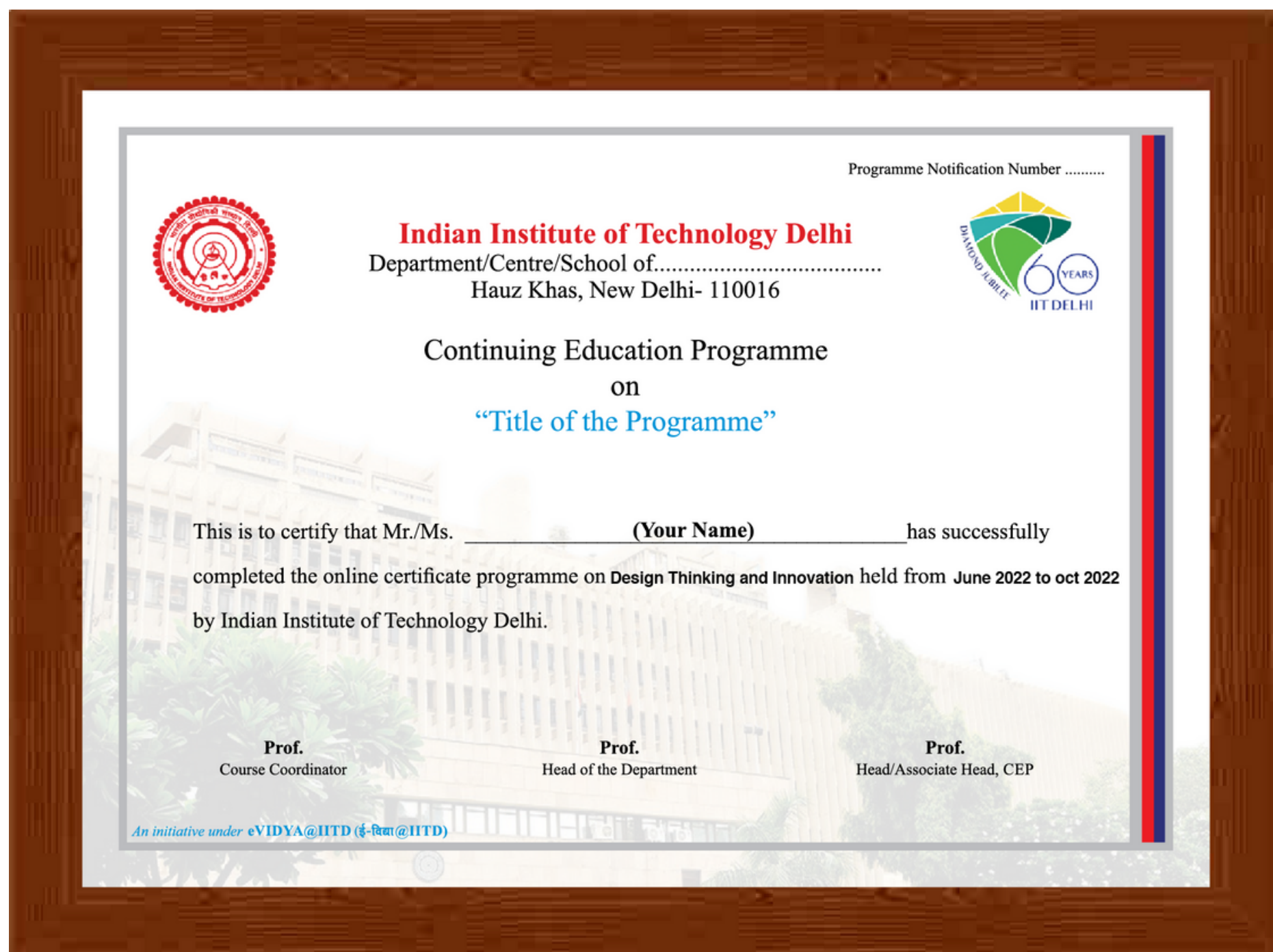
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# LEARNING OUTCOMES



# PROGRAMME CERTIFICATE

Participants will be awarded a successful completion certificate from IIT Delhi on scoring at least 60% marks in each of the evaluation components and completion of the Capstone Project. Participants who are unable to score 60% marks or unable to complete the Capstone Project in the evaluation will only be eligible for the participation certificate.



*Note: All certificate images are for illustrative purposes only and may be subject to change at the discretion of IIT Delhi.  
Only e-certificate will be issued by CEP IIT Delhi.*



# PROGRAMME COORDINATOR



## Dr Vijayaraghavan M. Chariar

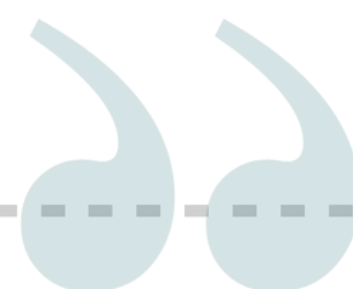
Professor, Centre for Rural Development & Technology  
Indian Institute of Technology Delhi

Prof. Vijayaraghavan M. Chariar has worked in diverse areas including Design for Sustainability, Frugal Innovation, Traditional Knowledge Systems, and Joyous Leadership. He has been awarded the Teaching Excellence Award by IIT Delhi and has taught and conducted research at the Arizona State University as a Fulbrighter. Prof. Chariar is the author of several patents and publications on innovative technologies. A passionate entrepreneur, he serves as the chairman of the IIT Delhi partnered venture Ekam Eco Solutions, and serves as a mentor and advisor to many start-ups, incubators, and accelerators.



**Human-centered design is a philosophy, not a precise set of methods, but one that assumes that innovation should start by getting close to users and observing their activities.**

*– Donald A. Norman*



# PROGRAMME DETAILS

## Programme Schedule

<b>Duration</b>	16 Weeks
<b>Programme Start Date</b>	Aug 14, 2023
<b>Programme Application Link</b>	<a href="#">Click here to apply to the programme</a>

## Eligibility

- Graduates (10+2+3) or Diploma holders (only 10+2+3) from a recognized university in any discipline.
- Minimum 1 year of work experience (Private Sector / Government / NGO / Entrepreneur / Self Employed) as on August 14, 2023 (desirable).

## Selection Process

- Screening and Selection will be done by IIT Delhi

# PAYMENT SCHEDULE

**Programme Fee**                    **INR 1,00,000 + GST**

## Instalment Schedule

	<b>Booking Amount</b>	<b>Instalment 1</b>
<b>Remarks</b>	Within 7 days from selection	11 Sep 2023
<b>Amount</b>	INR 50,000 + GST	INR 50,000 + GST

Note:

- The actual programme schedule will be announced closer to the programme start.
- GST (currently @ 18%) will be charged extra on these components.

<b>Last Date to Apply</b>	<b>Wednesday, 9 August, 2023</b>
<b>Shortlisted Candidates Will Be Informed by</b>	<b>Wednesday, 16 August, 2023</b>
<b>Last Date to Submit the Fee</b>	<b>Within 5 days post selection</b>

Note: Applications will be reviewed based on eligibility and subsequent shortlisting process as laid down by the Programme Coordinators.

\*Two campus meetups (optional) are scheduled on 16th September 2023 and 4th November 2023, between 11:00 am to 4:30 pm, at IIT Delhi Campus. To join the meetup(s), participants would bear travel and accommodation cost and make their own arrangements.

**All fee should be submitted in the IIT Delhi CEP account only, and the receipt will be issued by IIT Delhi CEP account for your records.**

# APPLICATION REQUIREMENTS

## **Graduation and Post-Graduation Education:**

- Consolidated Graduation Marksheet (All Semester)
- Final year students may submit the marksheets up to the previous semester

## **Experience Documents (If Applicable):**

- For Previous Organisation(s): Relieving letters
- For Current Organisation: Current Salary Slip or Bonafide Certificate from the HR department on company letterhead

## **ID Proof:**

- Any Government-issued photo ID like PAN Card/ Driving License/ Passport, etc.
- Submission of passport-size photo during application is mandatory

# SYSTEM REQUIREMENTS

This programme includes online learning classes conducted on Zoom. To attend an online learning class you will need to have a PC/ Laptop/ Mac with:

- Speakers and microphone: built-in or a USB plug-in or wireless Bluetooth
- Webcam: built-in or USB plug-in
- Processor: with Dual Core 2Ghz or higher (i3/ i5/ i7 or AMD equivalent)
- RAM: 4 GB or higher
- OS: Either MacOS 10.7 or higher OR Windows 8 or higher
- An internet connection: Minimum bandwidth of 3.0 Mbps (up/ down)
- Browser: IE 11+, Edge 12+, Firefox 27+, Chrome 30+
- Zoom software client installed on your PC/ Laptop/ Mac

We use the Zoom software application to conduct online learning classes. Zoom works on a variety of PCs/ Laptops/ Mac systems and also on phones and tablets.

You can join your online learning class from a phone or tablet if it supports the Zoom client.

We recommend that you attend classes from a PCs/ Laptops/ Mac.

# ABOUT IIT DELHI

The Indian Institute of Technology Delhi (IIT Delhi) is one of the 5 initial IITs established for training, research and development in science, engineering and technology in India. Established as College of Engineering in 1961, the Institute was later declared as an Institution of National Importance under the “Institutes of Technology (Amendment) Act, 1963” and was renamed as “Indian Institute of Technology Delhi”. It was then accorded the status of a Deemed University with powers to decide its own academic policy, to conduct its own examinations, and to award its own degrees. Since its inception, over 48000 have graduated from IIT Delhi in various disciplines including Engineering, Physical Sciences, Management and Humanities & Social Sciences. Of these, nearly 5070 received PhD degrees. The rest obtained a Master’s Degree in Engineering, Sciences and Business Administration. These alumni today work as scientists, technologists, business managers and entrepreneurs. There are several alumni who have moved away from their original disciplines and have taken to administrative services, active politics or are with NGOs. In doing so, they have contributed significantly to the building of this nation, and to industrialisation around the world. For more details, please visit: [www.iitd.ac.in](http://www.iitd.ac.in)

## ABOUT CONTINUING EDUCATION PROGRAMME (CEP)

Executive Education is a vital need for the companies to build a culture that promotes newer technologies and solutions and builds a workforce that stays abreast of the rapidly transforming needs to the technological, business and regulatory landscape. Committed to the cause of making quality education accessible to all, IIT Delhi has launched Online Certificate Programmes under eVIDYA@IITD (ईविद्या @IITD): enabling Virtual & Interactive-learning for Driving Youth Advancement@IITD for Indian as well as international participants. These outreach programmes offered by the Indian Institute of Technology Delhi (IIT Delhi) are designed to cater to the training and development needs of various organisations, industries, society and individual participants at national and international level with a vision to empower thousands of young learners by imparting high-quality Online Certificate Programmes in cutting-edge areas for their career advancement in different domains of engineering, technology, science, humanities and management. For more details, please visit: <http://cepqip.iitd.ac.in>



Apply for the programme here

**APPLY NOW**

For registration and any other information,  
please get in touch with us at [iitd.execed@emeritus.org](mailto:iitd.execed@emeritus.org)

For any feedback, please write to CEP IIT Delhi  
at [contactcep@admin.iitd.ac.in](mailto:contactcep@admin.iitd.ac.in)

 [WhatsApp an Advisor On +91 74120 81081\\*](https://www.whatsapp.com/message/917412081081)

\*This number does not accept any calls. Please message your queries.



**Disclaimer:** Online Certificate Programmes are offered by the Indian Institute of Technology Delhi under the aegis of Continuing Education Programme (CEP) so that the Institute can realise its vision of serving as a valuable resource for industry and society, and fulfil its mission to develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a range of professions.