



GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA

(An Autonomous College under UGC Act 1956)

Department of Computer Science and Engineering

in association with **Institution's Innovation Council** (Ministry of Education Initiative)
under the aegis of **Internal Quality Assurance Cell (IQAC)**



NATIONAL LEVEL ONE-WEEK FACULTY DEVELOPMENT PROGRAMME

DESIGN THINKING

Human-Centred Innovation for Engineering Educators — with a One-Day Industrial Visit

EMPATHIZE
understand people

DEFINE
frame the problem

IDEATE
generate ideas

PROTOTYPE
build to think

TEST
learn & iterate

DATES
20–24 July 2026

MODE
Hybrid

VENUE
Dept. of CSE, GNDEC

SEATS
50

ABOUT THE PROGRAMME

Design Thinking is a human-centred, iterative approach to innovation that integrates the needs of people, the possibilities of technology, and the requirements for viability. Recognized under NEP 2020 as a mandatory component of the engineering curriculum, it has become a core competency for educators. This FDP offers a rigorous yet practical grounding through expert sessions, hands-on team activities, live case studies, and a one-day industrial visit that demonstrates the methodology in a real industrial setting.

OBJECTIVES

- Master the five-stage Design Thinking process and its philosophy.
- Gain hands-on practice with empathy maps, personas, journey mapping, brainstorming and rapid prototyping.
- Integrate Design Thinking into curriculum delivery and project-based learning.
- Strengthen creativity and human-centred innovation culture among faculty and students.
- Experience Design Thinking in practice through direct industry exposure.

WHO SHOULD ATTEND

Faculty members of GNDEC and other institutions, and research scholars interested in innovation, pedagogy, and product design.

EXPERT SPEAKERS

Dr. Yadwinder Singh
IIT (BHU), Varanasi

Mr. Arshdeep Singh Khangura
Technical Lead, Coforge Ltd.

Dr. Kamalpreet Sandhu
O.P. Jindal Global University

Dr. Jagdeep Singh
SLIET, Longowal

DAY 4 HIGHLIGHT

One-Day Industrial Visit

Visit a reputed industry / R&D centre to observe how Design Thinking drives product development, process improvement and customer experience — followed by an interactive session with industry experts. Transport arranged by the Institute.

REGISTRATION FEE

Faculty of GNDEC, Ludhiana	NIL
Participants from other institutions	₹ 500/-

ORGANIZING TEAM

PATRON

Dr. Sehijpal Singh · Principal, Guru Nanak Dev Engineering College, Ludhiana

CHAIRPERSON

Dr. Kiran Jyoti · Professor and Head, Department of CSE

CONVENER, IIC

Dr. Arvind Dhingra · Convener, IIC & Associate Professor, Department of EE

COORDINATORS

Dr. Satinderpal Singh · Assistant Professor, Department of CSE

Dr. Hardeep Singh Kang · Assistant Professor, Department of CSE

PROGRAMME SCHEDULE

20–24 July 2026 · One Week · Hybrid

Each day comprises **two sessions of two hours each** (forenoon and afternoon); Day 4 is a full-day industrial visit.

DAY 1

Foundations of Design Thinking

Inauguration · the need for human-centred innovation · overview of the Design Thinking process · case studies from industry and academia · ice-breaking and team formation.

DAY 2

Empathize & Define

Empathy mapping · user interviews and observation techniques · persona development · customer journey mapping · problem framing and “How Might We” statements · hands-on group activity.

DAY 3

Ideate & Prototype

Structured brainstorming and ideation techniques (SCAMPER, mind mapping) · idea selection matrices · low-fidelity prototyping workshop · storyboarding · team presentations.

DAY 4

Industrial Visit + Industry Exposure

Full-day visit to a reputed industry / R&D centre · observing Design Thinking in product design, process improvement and customer experience · interaction with industry experts.

DAY 5

Test, Iterate & Apply in Academia

Prototype testing and feedback loops · Design Thinking for curriculum design and teaching-learning · team project presentations · panel discussion · valedictory session and certificate distribution.

WHAT YOU WILL TAKE AWAY

Practitioner Skillset

Ability to run the full Design Thinking cycle on real academic and industry problems.

Classroom Integration

Ready-to-use methods for NEP 2020-aligned, project-based and experiential learning.

Innovation Mentoring

Confidence to guide student projects, hackathons and IIC innovation activities.

Industry Connect

First-hand exposure to innovation practice and stronger industry-academia linkage.

HOW TO REGISTER

1. Fill in the online registration form (link / QR code below).
2. Outside participants: pay the registration fee of ₹ 500/- and upload the payment receipt.
3. Confirmed list of the selected candidates will be published on the website cse.gndec.ac.in. Seats are limited to 50 and will be allotted on a first-come, first-served basis.



SCAN TO REGISTER

Point your phone camera at the QR code to open the online registration form. Registration closes on **17 July 2026**.

CONTACT US

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Venue

Seminar Hall / Smart Classroom, Department of CSE,
Guru Nanak Dev Engineering College, Gill Park,
Gill Road, Ludhiana – 141006

IMPORTANT DATES

Last date for registration	17 July 2026
Selected list on cse.gndec.ac.in	18 July 2026
Programme dates	20–24 July 2026