



**GURU NANAK DEV
ENGINEERING COLLEGE,
LUDHIANA**

An Autonomous College Under UGC Act 1956



ONE-WEEK FACULTY DEVELOPMENT PROGRAMME

On

AI APPLICATIONS IN CLEAN ENERGY & E-MOBILITY

**16–20
NOV 2026** **Testing & Consultancy
Cell, GNDEC**

Organized by

**Department of Electrical Engineering, Guru
Nanak Dev Engineering College, Ludhiana**

in Association with

**Institution of Engineers (India), Ludhiana
Local Chapter and GNDEC Centre For
Sustainability, Ludhiana**

ABOUT THE COLLEGE

Established in 1956, Guru Nanak Dev Engineering College (GNDEC), Ludhiana, is one of the oldest and most prestigious pioneer engineering institutions in North India. Set up by the historic Nankana Sahib Education Trust, the college has continuously stood at the forefront of quality technical education and research.

The institution emphasizes a balanced approach to learning by integrating theoretical knowledge with practical application, research and innovation. With well-equipped laboratories, modern infrastructure and experienced faculty, GNDEC provides an environment that fosters critical thinking and technical competence.

COLLEGE AT A GLANCE

Managed by	Nankana Sahib Education Trust (NSET)
Affiliation	I.K.G Punjab Technical University, Kapurthala
Programmes	Undergraduate, post graduate and PhD programmes across various disciplines (https://gndec.ac.in/?q=node/47)

ABOUT THE DEPARTMENT

The Department of Electrical Engineering started with an initial intake of 30 students in UG Program in 1957. At present the intake in UG program is 120. In 1982, the department started a part-time PG Program (Electrical Engineering.) with an intake of 13 students and in 1997, a full time PG program (Power Engineering.) with an intake of 13 students. At present the intake to full time PG program is 12 students. The Department is an authorized research centre of IKG Punjab Technical University, Kapurthala for Ph.D. Keeping in view the graduate attributes of ethical practices and social responsibility, green and clean energy obligation, the Department has installed a 700 kWp rooftop grid connected solar power plant in college premises.

DEPARTMENT FOCUS AREAS

- ◆ Computer Aided Power System Analysis
- ◆ PLC & Automation
- ◆ Power Electronics & Electric Vehicles
- ◆ Control Systems & Robotics
- ◆ Electrical Machines & Drives
- ◆ Power Systems & Smart Grids

ABOUT THE INSTITUTION OF ENGINEERS (I)

The Institution of Engineers (India), established in 1920, is India's premier professional body dedicated to advancing engineering knowledge and professional excellence. Through its extensive network of centres and technical activities, IEI promotes innovation, knowledge exchange, professional development and sustainable engineering practices, contributing significantly to the technological progress of the nation.

TARGET AUDIENCE

Faculty members from AICTE/UGC recognized institutions, MTech & Ph.D. research scholars and Industry Professionals.

ORGANIZING COMMITTEE

PATRON **Dr. Sehijpal Singh**
Principal, GNDEC Ludhiana

**PROGRAM
CHAIR** **Dr. Kanwardeep Singh**
Prof. & Head, EED, GNDEC

CONVENER **Dr. Arvind Dhingra**
Associate Professor, EED, GNDEC &
Ex chairman & council member,
IE(I), LLC

FDP CO-ORDINATORS

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Prof. Arshdeep Kaur | Faculty, EED, GNDEC
Contact Details: +91 76588 75257
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PROGRAMME AT A GLANCE

One-Week Faculty Development Programme

16th to 20th November, 2026

ABOUT THE FDP

This one-week Faculty Development Programme focuses on applying artificial intelligence to clean energy and e-mobility, covering renewable integration, smart microgrids, electric vehicle architectures, battery intelligence, intelligent charging, and electric drive control. The FDP will bring together **academicians, researchers, industry experts, and professionals** to discuss emerging technologies, research opportunities, and real-world applications. It will also encourage participants to develop innovative approaches towards **sustainable, intelligent, and energy-efficient transportation and power systems**.

OBJECTIVES

- ◆ Provide participants with an understanding of AI applications in clean energy and e-mobility.
- ◆ Explore AI, IoT and automation in modern grid monitoring, control and charging systems.
- ◆ Familiarize participants with renewable integration, battery analytics, smart grids and EV technologies.
- ◆ Encourage interdisciplinary learning and research in AI-driven power and e-mobility applications.
- ◆ Encourage the development of AI-enabled electric vehicle technologies, such as smart charging, predictive maintenance and autonomous driving, for market- ready products.
- ◆ Strengthening research capabilities and promoting academia-industry collaboration in next-generation energy technologies.

REGISTRATION FEE

CATEGORY	FEE (INR)
Faculty Members & Industry Professionals	₹ 500
Research Scholars	₹ 200

REGISTRATION PROCEDURE

- ◆ **NOC Required from Head Of Institution:** For Non - GNDEC participants. [Link](#)
- ◆ **Pay the registration fee.** - Not applicable to GNDEC & IE(I) participants
Account Details: Students chapter, Institution of Engineers (I)
Account no.: 00211000082393
IFSC Code: PSIB0000021
- ◆ **Fill the online registration form** – Fill the online form & Upload the NOC, if applicable.
Scan the QR code below or open link

Online Registration Form

https://docs.google.com/forms/d/e/1FAIpQLSceghr_wUMhm4b1S394jXzWy_kh1SzZBJ9Kl6p1ny2Zizqh4A/viewform?usp=header



- ◆ **Accommodation** : Mention in the registration form if hostel accommodation is required. (It is on payment basis).
- ◆ **Await confirmation** – Selected candidates will be notified by e-mail.

Last date to fill the registration form is 10/11/2026

CERTIFICATION MANDATE

An official certificate of completion will be awarded to participants maintaining a minimum of 90% attendance across all lecture and practical sessions.

REGISTER NOW
[Open Registration Form](#)

ORGANIZING TASK FORCE

- Prof. Preetinder Singh
- Prof. Harmeet Singh Gill
- Prof. Ravinder Kaur
- Prof. Baljeet Singh
- Prof. Kuldeep Singh
- Prof. Swapandeep Kaur
- Dr. Ranvir Kaur
- Prof. Mani Bansal
- Prof. Rupinderjit Singh
- Prof. Gagandeep Singh
- Prof. Samreet Kaur
- Prof. Karanbir Singh
- Prof. Sukhpal Singh
- Prof. Balwinder Singh
- Dr. Mandeep Kaur

RESOURCE PERSONS

- ◆ **Dr. Y.S. Brar**
Ex VC, IKG Punjab Technical University, Kapurthala
- ◆ **Dr. Parag Nijhawan**
Thapar Institute of Engineering & Technology, Patiala
- ◆ **Dr. Saurabh Chanana**
National Institute of Technology, Kurukshetra
- ◆ **Dr. Bharti Koul**
National Institute of Technology, Hamirpur
- ◆ **Er. Priyam Jain**
Grid Corporation of India
- ◆ **Dr. Ritula Thakur**
HOD, EED, National Institute of Technical Teachers Training and Research, Chandigarh.
- ◆ **Dr. Shubham Gupta**
Delhi University, Delhi
- ◆ **Dr. VK Yadav**
Delhi Technical University, Delhi
- ◆ **Dr. Saurabh Ratra**
Punjab Agricultural University, Ludhiana
- ◆ **Er. Rajeev Sapra**
Delhi Transco Ltd.
- ◆ **Dr. Raman Sehgal**
MPE, Guru Nanak Dev Engineering College, Ludhiana