**Five Days Online Faculty Development Programme**
**On**

# Opportunities and Applications of Artificial Intelligence in Electrical Engineering

**06th to 10th May, 2024**

**National Institute of Technology, Hamirpur**

**Coordinators**

**Dr. Ram Niwash Mahia**
**Dr. Pankaj Kumar Mishra**

**Organized by**

**Department of Electrical Engineering**
**National Institute of Technology**
**Hamirpur, Himachal Pradesh**

## About the Institute

National Institute of Technology Hamirpur is one of the thirty-one NITs of the country, which came into existence on 7th August 1986 as Regional Engineering College, a joint and cooperative enterprise of the Govt. of India and Govt. of Himachal Pradesh. On 26th June 2002, REC Hamirpur was awarded the status of Deemed University and upgraded to National Institute of Technology. The Institute offers Bachelor, Master and Doctoral programmes in Engineering, Sciences, Architecture, Management and Humanities. Various programmesserve the purpose of building a comprehensive foundation of knowledge and of enhancing confidence, creativity and innovation in its students.

## About the Department

Electrical Engineering Department, established in the year 1986, is one of the oldest departments of National Institute of Technology Hamirpur. The Department has been imparting quality education at undergraduate and post-graduate level. The faculty members have been active in teaching and research activities. The course curriculum is being revised from time to time so as to keep students abreast with latest emerging technologies. Various departmental laboratories have been strengthened and modernized by procuring state of art equipment's. Department is also equipped with latest experimental and computational facilities for taking up R&D and consultancy activities in different areas of Electrical Engineering.

## COMMITTEE

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## About the e-FDP

Embark on a transformative journey into the fusion of artificial intelligence (AI) and electrical engineering with our intensive five-day online Faculty Development Programme (e-FDP). Throughout the program, participants will delve into key topics such as AI's role in power systems optimization, control systems enhancement, renewable energy integration, power electronics control, IoT integration, predictive maintenance strategies, and energy efficiency optimization.

This e-FDP aims to equip attendees with a technical understanding of AI's applications within electrical engineering domains. Through a blend of theoretical insights and practical demonstrations, participants will explore the implementation of AI algorithms for power systems optimization, control systems enhancement, and renewable energy integration, empowering them with the skills and knowledge necessary to innovate and drive efficiency within electrical engineering practices.

Catering to educators, professionals, and researchers keen on harnessing AI's potential to drive innovation in Electrical Engineering, this e-FDP offers collaborative sessions with experts from academia and industry. The sessions will provide invaluable perspectives on real-world applications and research trends, fostering a dynamic learning environment. By gaining an in-depth understanding of AI's role in revolutionizing power systems, control mechanisms, and energy efficiency solutions, participants will be well-equipped to leverage AI technologies for impactful advancements in the field of electrical engineering.

## Topics to be covered

- Introduction to Artificial Intelligence (AI)
- AI in Power Systems
- AI in Control Systems
- Intelligent Control Techniques
- AI for Renewable Energy
- AI in Power Electronics
- IoT Integration with AI
- AI for Predictive Maintenance
- AI in Energy Efficiency
- AI Tools and Platforms
- Application of AI in Electric Vehicles

## Eminent Speakers

- Prof. G. N. Pillai, IIT Roorkee
- Prof. Sukumar Mishra, IIT Delhi
- Prof. B. K. Panigrahi, IIT Delhi
- Prof. B. S. Rajpurohit, IIT Jodhpur
- Prof. V. Mukherjee, IIT Dhanbad
- Prof. Rajesh Kumar, MNIT Jaipur
- Prof. Rohit Bhakar, MNIT Jaipur
- Dr. Shelly Vadhera, NIT Kurukshetra
- Dr. Neeraj Gupta, USA
- Dr. Balakrishna P., GE, Hyderabad
- Prof. R. N. Sharma, NIT Hamirpur
- Dr. Veena Sharma, NIT Hamirpur
- Dr. Pankaj K. Mishra, NIT Hamirpur

## Important Dates

Last date (Online Registration): 03-05-2024
(Limited seats are available)
Confirmation by E-mail:04-05-2024
Duration: 06-05-2024 to 10-05-2024

## Eligibility

This program is open to faculty members, research scholars, PG & UG Students, and industrial personnel.

## e-Registration and Payment Guidelines

**Registration Fee (Non-Refundable) (*Through SBI Collect*):**

**(a) Rs. 500 for Academia/R&D Labs**
**(b) Rs. 200 for Students**
**(c) Rs. 1000 for participants from Industry**

1. Go to **www.onlinesbi.com** and select option **State Bank Collect**
2. Accept terms & conditions and Proceed further
3. Select State of Corporate/Institute: **Himachal Pradesh** and Type of Corporate/Institute: **Educational Institute**
4. Select Educational Institute Name: **NIT Hamirpur** and click on **Submit**
5. Select Payment category **Workshop STC FDP Conference** and fill the details to proceed further

**Link for e-registration through google form:**
**https://forms.gle/sGP1pmVa9yGwiqFX6**

## e-Certification

E-certificates will be provided to the participants, with at least 75% attendance.

## Contact Details

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