Five Days Online Faculty Development Programme
On

Recent Trends in Intelligent Control Techniques for Renewable Energy Systems and Electric Vehicles

12th to 16th October 2020

National Institute of Technology, Hamirpur

Coordinators

Dr. Ram Niwash Mahia
Dr. Supriya Jaiswal

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 programmes serve 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.

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About the e-FDP

Intelligent control techniques provide reliable bedrock for developing smart grid in compliance with electrical utilities and consumer demands. These monitoring and controlling features enables reinforcement of reliability index of smart grid systems. It helps in configuration, control and synchronization of AC/DC microgrid. Also, it provides optimized scheduling of electric vehicles charging and discharging in order to fulfil the grid stability and reliability criteria. It helps to regulate the intelligent energy system.

Intelligent control system supports the smart grid by controlling the recharging of PEV batteries, maintaining power quality and stability while integration of solar panel, wind farms and electric vehicles and increases the flexibility and adaptability of automated energy distribution system. Neural network based intelligent control helps in optimization of energy demand prediction in smart grid. The objective of the programme is to embark the interest and knowledge in the area of emerging challenges of implementing intelligent control techniques to smoothly operate the renewable energy sources and electric vehicles integrated with the existing grid and maintain the electricity demand in deregulated energy market.

Topics to be covered

- Microgrid configurations, control, synchronization and their applications.
- Reconfiguration of distribution system network in presence of large penetration of renewable generation into the system.
- Intelligent energy management systems.
- Simulation and analysis of hybrid and electric vehicles.
- Electric vehicles charging.
- Design of converter for DC microgrid.

Eminent Speakers

- Prof. (Dr.) Bhim Singh, IIT Delhi
- Prof. (Dr.) Praveen Kumar, IIT Guwahati
- Dr. Deepak M. Fulwani, IIT Jodhpur
- Dr. Neeraj Gupta, Oakland University, Michigan, USA
- Prof. (Dr.) H. M. Suryawanshi, VNIT Nagpur.
- Dr. N. R. Patne, VNIT Nagpur
- Prof. (Dr.) Rajesh Kumar, MNIT Jaipur
- Dr. Singh Arvind Ramnarayan, Shandong University, P.R. China
- Dr. Suresh Singh, Enerzinx India Pvt. Ltd., India
- Dr. Chinmay Jain, Shakti Pumps India Ltd., India
- Prof. (Dr.) Y. R. Sood, NIT Hamirpur
- Prof. (Dr.) R. N. Sharma, NIT Hamirpur
- Prof. (Dr.) Sushil Chauhan, NIT Hamirpur
- Dr. B. B. Sharma, NIT Hamirpur

Important Dates

Last date (Online Registration): 10-10-2020
Confirmation by E-mail: 11-10-2020
Duration: 12-10-2020 to 16-10-2020

Eligibility

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

Registration Process

The interested participants should register by paying the registration fee and filling the google form through the below link:
https://forms.gle/hMw2pf3uZvb3gBQy6

Registration fee: Through SBI Collect / NEFT
(a) Rs. 500 for Academia/R&D Labs participants
(b) Rs. 200 for Students
(c) Rs. 1000 for participants from Industry

Registration fee should be paid through online mode to the following account. The payment receipt will be required to upload during the online registration.

Bank Details:
Bank & Branch Name: SBI, NIT Hamirpur (H.P.)
Account Name: Director NIT Hamirpur
Current Account No.: 11159548375
IFSC Code: SBIN0010367

Certification

E-certificates will be provided to those participants who have attended at least 75% of the program.

Contact Details

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