

**Five Days Online Faculty
Development Programme
On
Opportunities and Challenges in
Applications of Renewable Energy
Systems**

23rd to 27th October, 2023
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.

COMMITTEE

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About the e-FDP

The utilization of renewable energy resources is increasing exponentially in the current power system scenario. With the integration of renewable energy technologies in the smart grid, several opportunities and challenges will arise in applications. The renewable resources will emit less carbon. Also, it can be utilized as stand-alone system and Remote Area Power Supply (RAPS) for rural areas. However, with an unpredictable and intermittent operating environment, grid management will pose a major challenge. Some other challenges would be energy policy and regulation, developing cybersecurity for expanded infrastructure and optimal allocation of renewable energy sources in smart grid system.

The objective of the program is to embark on the interest and knowledge in applications of renewable energy systems in smart grid system and the opportunities and challenges in its implementation.

Topics to be covered

- ❖ Optimal allocation of renewable energy sources
- ❖ Power quality challenges and control in smart grid system
- ❖ Renewable energy pricing and forecasting
- ❖ Integration of RES in smart grid: Pros and Cons
- ❖ Energy Policy and regulation in RES Implementation
- ❖ Need for Cybersecurity for expanded infrastructure.
- ❖ Energy efficient smart grid network
- ❖ Demand Response Management (DRM)
- ❖ Smart health and emergency systems
- ❖ Smart metering and advanced metering infrastructure
- ❖ Multi agent systems for deregulated energy market scenario

Eminent Speakers

- ❖ Prof. R. Bansal, University of Sharjah
- ❖ Prof. A. K. Rathore, SIT Singapore
- ❖ Prof. N. P. Padhy, IIT Roorkee
- ❖ Prof. H. O. Gupta, IIT Roorkee
- ❖ Prof. B. S. Rajpurohit, IIT Jodhpur
- ❖ Prof. Rajesh Kumar, MNIT Jaipur
- ❖ Prof. M. S. Yadav, DTU Delhi
- ❖ Prof. U. K. Kalla, NIT Delhi
- ❖ Dr. Ranjana Sodhi, IIT Ropar
- ❖ Dr. N. R. Patne, VNIT Nagpur
- ❖ Prof. H. M. Suryawanshi, NIT Hamirpur
- ❖ Prof. Y. R. Sood, NIT Hamirpur
- ❖ Dr. R. K. Jarial, NIT Hamirpur

Important Dates

Last date (Online Registration): 20-10-2023
(Limited seats are available)
Confirmation by E-mail: 22-10-2023
Duration: 23-10-2023 to 27-10-2023

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/sDf25qSXgGJrC3Z98>

e-Certification

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

Contact Details

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