

International Online Faculty Development
Program

On

Recent Computational Strategies for Condition Monitoring of High Voltage Equipment

ReCoSCoM-HiVoE-2021

Under the banner of

Electronics and ICT academy at National Institute of
Technology Patna

18th September to 24th September, 2021



Patron

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Organized by

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Technology Patna, Patna- 800005. India.

www.nitp.ac.in/ict/

Supported by

Ministry of Electronics and Information Technology
(MeitY), Govt. of India.

About NIT Patna

National Institute of Technology Patna is the 18th National Institute of Technology created by the Ministry of H.R.D. Government of India after rechristening the erstwhile Bihar College of Engineering Patna on 28.01.2004. NIT Patna marked its humble beginning in 1886 with the establishment of pleader's survey training school which was subsequently promoted to Bihar College of Engineering Patna in 1924. This made this institute the 6th oldest Engineering Institute of India. The Institute is situated on the south bank of holy river Ganges behind Gandhi Ghat (where the ash of father of the Nation, Mahatma Gandhi was offered in the river Ganges). The campus has a picturesque river view with historic buildings presenting a spectacle of architectural delight and natural beauty. The Institute imparts high level education training, research and development in science, engineering technology and humanities along with high quality education and values at UG, PG and Ph.D. level. At present the Institute offers courses in six major technical disciplines viz. Architecture, Civil Engineering, Computer Science & Engg., Electrical Engg., Electronics & Communication Engg. And Mechanical Engg. It also consists of well-established departments of Physics, Chemistry, Mathematics and Humanities and Social Sciences.

Electronics and ICT Academy

The Ministry of Electronics and Information Technology, Government of India has instituted seven Electronics and Information & Communications Technology (ICT) Academies of which, the academy of NIT Patna is one. The Academy at NIT Patna aims to design and organize basic as well as specialized training programmes in niche areas of electronics and ICT for the development of required knowledge base, skills and tools to equip the teaching community with better knowledge and understanding.

Objective and Scope

This FDP on "Recent Computational Strategies for Condition Monitoring of High Voltage Equipment" brings an opportunity for academicians, research scholars, and postgraduate students across various engineering disciplines across the globe to explore the various computational strategies and techniques recently applied for the Condition Monitoring of High Voltage Equipment. This program is intended to expand the existing knowledge on advanced condition monitoring methodologies and the inclusion of computational techniques for effective condition monitoring. Over the past few years, rapid progress has been made on the advancement of tools that facilitate data acquisition and post-processing of acquired data in the field of high voltage engineering and related instrumentation. This FDP aims to provide short but extensive training on different aspects of experimental measurements, data analysis and signal processing tools with particular attention to high voltage applications.

Objectives of the Program

- To impart an understanding of condition monitoring of high voltage equipment for academicians, researchers and students.
- To expand the existing knowledge on advanced condition monitoring methodologies and the inclusion of computational techniques for effective monitoring.
- To introduce some cutting edge research trends in the field of condition monitoring of high voltage equipment.

Topics to be covered

The following topics will be covered in the program: Strategic planning & asset management of electrical systems using AI and machine learning techniques, Data Acquisition, Soft Computing for HV Applications,

Dielectric Response Analysis, Partial Discharge, Signal Conditioning, Condition monitoring of solid, liquid, gas and composite insulation in electrical equipment using time-domain and frequency-domain techniques, dielectric ageing mechanisms and their assessment, noise and vibroacoustic analysis, online and real-time condition monitoring, climate and other environment-related issues.

Resource Persons

1. Prof. U. Kumar, IISc Bengaluru.
2. Prof. R. Sarathi, IIT Madras.
3. Prof. N. Gupta, IIT Kanpur.
4. Prof. S. Chakravorti, JU, Kolkata.
5. Prof. S. Chatterjee, NIT Mizoram.
6. Prof. C. Koley, NIT Durgapur.
7. Dr. S. Reddy, IISc Bengaluru.
8. Dr. C. C. Reddy, IIT Ropar.
9. Dr. A. Baral, IIT (ISM), Dhanbad.
10. Dr. P. Preetha, NIT Calicut.
11. Dr. N. Haque, NIT Calicut.
12. Dr. Jeyabalan Velandy, GE T&D India Limited.

More resource persons to be added in due course.

One-week FDP includes

Seven Days Training will be taken by a group of experts from India and Abroad with the experience ranging from several years to several decades in delivering sessions in India and abroad. The training hour is 5-6 hours/ each day. Mode of training is Instructor-led live online.

- **40 Hours Instructor-led live online Hands-on based learning & Interactive Query Session.**
- Soft copy of study material, Training PPTs & Projects code
- Participants will get recorded sessions after completion of training

- E-Certificates will be given to participants who have attended more than 70% sessions in the workshop.

Who Can Participate

Faculty members, Research scholars and Students of recognized Universities from both India and Abroad and Industry personals. However, priority will be given to the faculty members.

Registration Fee

For Indian Nationals: Rs. 500/- (Faculty/Research Scholar/Student), Rs. 1000/- (Industry)

For Foreigners: Euro 50 or equivalent

Registration Process

1. Registration fee should be paid through online mode, the account details for this purpose is

Account Name: NIT Patna

Account No.: 50380476798

IFSC Code: IDIB000B810

2. Registration link:
<https://forms.gle/PRuXZv25Fnwnfwsj6>
3. The brochure of the program may be downloaded from the Institute website www.nitp.ac.in.
4. **Registration deadline: 17th September 2021 11:59 PM (IST)**
5. A PDF file of the online filled registration form with proof of registration fee paid should be sent by email to **Dr. Saurabh Dutta. (email: saurabh.ee@nitp.ac.in).**

Total 200 seats and the selection will be done on first-cum-first-serve basis.

<http://www.nitp.ac.in/ict/>

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REGISTRATION FORM

1. Name (block letter):
2. Gender:
3. Caste:
4. DOB:.....
5. Designation:
6. Organization:
7. Address for communication:
.....
.....
Pin code: Ph. No.:
- E-mail:
8. Highest Academic Qualification:
9. Specialization:
10. Experience (in years):
(a) Teaching: (b) Industrial:
11. Aadhar No:

DECLARATION : I do hereby agree to abide by the rules and regulations of the FDP.

Place:

Date:

.....
Signature of the Applicant