

A
Five-Day Online
Faculty Development Program
on
Simulation Techniques for
Power Electronics Converters-
(STPEC-2020)

Sponsored by
AICTE Training And Learning (ATAL)
Academy
08-12 February, 2021



Organized by
Department of Electrical Engineering
National Institute of Technology Patna
Ashok Rajpath-800005, Patna
Website: www.nitp.ac.in

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Dr. Vimlesh Verma, NIT Patna
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Address for Correspondence:

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Objectives of this FDP

- To provide knowledge of fundamentals and applications, design of power electronics experiments to faculty members, research scholar, and PG students of various fields.
- The course content would help them immensely in teaching and research work, especially in implementation and analysis part of Power Electronics Converters.

Course Contents

In this FDP, resource persons of eminence from organizations like IITs, NITs etc shall deliver expert lectures and discuss latest research issues with Simulations on various topics like:

- ❖ Introduction to the field of power electronics
- ❖ Fundamentals of basic and advanced converters
- ❖ Use of MATLAB/Simulink in design converters
- ❖ Single-phase and three-phase converters
- ❖ Improved Quality Converters
- ❖ Multilevel Rectifiers/Inverters
- ❖ Converters for Renewable Energy Sources
- ❖ AC Regulator and DC-DC Converters
- ❖ Harmonics Filters, APF, STATCOM
- ❖ Application of fuzzy and neural Networks
- ❖ Motor Control Applications
- ❖ Vector Control of AC Drives
- ❖ Smart Grids

Who Should Attend?

- Academicians, Research Scholars and PG Students from Electrical Engineering and Electronics Engineering, Power System and Renewable Energy areas
- Industry Practitioners engaged in research on control and Conversion of Electrical Power.

About the Institute:

National Institute of Technology Patna is the 18th National Institute of Technology created by the Ministry of Human Resource Development, Government of India after rechristening the erstwhile Bihar College of Engineering, Patna. The Institute has highly qualified faculty of higher caliber in various disciplines. Institute offers B. Tech, M. Tech & Ph.D programmes in respective field of Engineering, Sciences and Technology with well-equipped laboratories. The institute is situated on the south bank of holy river Ganges behind Gandhi Ghat, one of the most important and reverential place of Patna. The Gandhi Ghat is associated with the immersion of ashes of father of the Nation Mahatma Gandhi in the river Ganges. The campus has a picturesque river view with historic heritage building presenting a spectacle of architectural delight and natural beauty. The Institute campus is 8 km from the Patna Junction railway station and 15 km from the Jai Prakash Narayan International Airport Patna.

About the Department:

The Department of Electrical Engineering was established in 1945. In the year 1978 AICTE approved Post Graduate in Power System and Control System. The Department is continuously striving to achieve excellence in education, academic and industry oriented research to prepare the manpower that are globally competitive and capable of leading in industry, academia and government organizations in both India and abroad. Besides the Bachelor degree, Department offer Master and Ph.D. programme also.

Registration:

- **Registration Fee- Nil**
- Program will be delivered through **online mode.**
- **The participants are advised to apply online at AICTE ATAL registration portal on or before 31st January 2021 through:**
<https://atalacademy.aicte-india.org/signup>
>>Workshop
>>State-Bihar
>>Month- Feb
by (+) apply for workshop
- No TA/DA will be provided.
- Number of participants is limited to 200 (first-come first-served basis).

Test and Certificate:

- A test shall be conducted by coordinator at the end of the program.
- The certificates shall be issued to those participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test.

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