



Online Programme on Grid Connected Converters for Renewable Energy Integration

14th Sept to 25th Sept 2026



Experts/Speakers-

Dr. Ravita Lamba	Assistant Professor, IIT Roorkee
Dr. Sandeep N	Assistant Professor, MNIT Jaipur
Dr. Kapil Shukla	Assistant Professor, MNIT Jaipur

EICT Academy MNIT Jaipur

Chairman, EICT Academy & Director MNIT Jaipur Prof. Narayana Prasad Padhy
Chief Investigator: Prof. Vineet Sahula
Coordinator: Dr. Satyasai Jagannath Nanda
Co- Chief Investigators: Prof. Lava Bhargava, Prof. Pilli Emmanuel Shubhakar, Dr. Ravi Kumar Maddila

Objective (Electronics & ICT Academy-Phase II)

- 1) To conduct specialized FDPs for faculty/mentor training in line with the vision of MeitY in high-priority areas supporting the "Make in India" and the "Digital India" programs.
- 2) To promote synergy and collaboration with industry, academia, universities and other institutions of learning
- 3) To support the National Policy on Electronics 2019 (NPE 2019), which envisions positioning India as a global hub for ESDM sector, including MeitY Schemes/policies such as Programme for Semiconductors and Display Fab Ecosystem; India AI; National Programme on AI, Production Linked Incentive Scheme for IT Hardware & Large-Scale Electronics Manufacturing; EMC; SPECS; Chips to System (C2S); etc.
- 4) To promote standardization of FDPs through Joint Faculty Development Programmes.

A short 20-Hour Training Programme in online mode is being organized for faculty, doctoral students of engineering and technological institutions. Working professionals from industry/organizations are also invited to attend. The main theme of the training programme will be oriented around exploring the renewable energy sources and the power convertes utilized for renewable energy source integration. **The lectures will be conducted during 12:00 Hrs to 14:00 Hrs on weekdays.**

Programme Modules:

Module 1 - Renewable Energy Systems/Technologies: Introduction, Solar Energy Technologies, Wind-Energy Conversion System, Hydropower and Ocean Energy Systems, Biomass and Bioenergy Technologies, Geothermal and Hydrogen Energy Systems, Energy Storage Technologies.
Module 2 - Fundamentals of Power Electronics: Switch Characterization, Turn-on and Turn-off behaviour, Conduction Losses, Switching Losses, Volt-sec balance, Charge-sec Balance.
Module 3- DC-DC Converters: Buck Converter, Boost Converter, Buck-Boost Converter, Forward Converter, Flyback Converter.
Module 4- Inverters- Single-phase configuration, Three-phase configuration, Concept of Pulse-width Modulation, Unipolar/Bipolar PWM, SPWM, SVPWM, THIPWM, Discontinuous PWM Techniques.
Module 5 - Multi-Level Converters: Basic of multilevel inverters (MLIs), Building blocks and conceptualization, Topology synthesis fundamentals, MLIs for photovoltaic applications, Simulation studies and analysis.

Programme Coordinator

Dr. Kapil Shukla	fdp.academy@mnit.ac.in	9549650776 (M)
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Registration:

Registration is open to faculty, working professionals, industry persons, doctoral, postgraduate, and graduate students from India and the rest of the world. Participants will be admitted on a first-come, first-served basis.

Registration Fee

Mode of programme	India/SAARC/Africa		Rest of the world
	Academia (faculty/Students)	Others	
Online	Rs. 750/-	Rs. 1500/-	US \$ 60/-

(18% GST extra)

- Fee once paid will not be refunded back; however, can be adjusted for a future programme.
- The fee covers online participation in the programme, tutorial, notes and examination, certification charges etc.
- The registration amount may be paid through online mode- NEFT/UPI/Cards/SWIFT, provided at the registration portal.
- A detailed schedule will be shared after receiving the registration form.

Register online at - <http://online.mnit.ac.in/eict/>

→ For queries, contact us at fdp.academy@mnit.ac.in

EICT Academy MNIT Jaipur



MNIT Jaipur one of the oldest NITs, the institute has a rich heritage of sixty years producing world class engineers, managers, architects and scientists. Ranked 42nd nationally in the NIRF ranking-2025 (Engineering), the institute offers learning opportunities for undergraduate, postgraduate students, and researchers in various domains. Having a lush green campus of over 317 acres within the heart of the pink city, close to Jaipur International Airport, the campus offers a safe and lively environment. A world class teaching infrastructure, state-of-art laboratories welcome you at the campus. The institute has a vision to impart education of international standards and conduct research at the cutting edge of technology.