



One - Week Faculty Development Programme in online Mode on
“Next generation Power Electronics: AI Application in Sustainable energy and E mobility”
(07th September – 11th September 2026)
In association with National Institute of Technology, Manipur

Schedule

Date	Time	Topic	Expert
Day-1 7-09-2026	09:30 am - 10:00 am	Inaugural session	
	10:00 am - 11:30 am	Topic-Electrolytic capacitor less grid connected PV system	Prof. Vivek Nandan Lal IIT BHU
	11:30 am - 01:00 pm	Power Electronics for On-Board Electric Vehicle Charger	Dr. Soumya Ranjan Meher NIT Calicut
	01:00 pm - 02:00 pm	Lunch	
	02:00 pm - 03:30 pm	AI-Enabled Open-End Winding Multilevel Inverters for Next-Generation Electric Mobility	Prof. Sanjiv Kumar Harcourt Butler Technical University, Kanpur
	03:30 pm - 05:30 pm	The New Energy Era: How Microgrids and Renewables are Redefining Grid Sovereignty	Dr. Tripurari Nath Gupta NIT Uttarakhand
Day- 2 8-09-2026	09:30 am - 11:30 am	Physics informed Machine Learning for Modern Power Applications	Dr. M V Satya Sai Chandra Hitachi Energy
	11:30 am - 01:00 pm	Cyber-resilience in Smart Grids	Dr. Meher Preetam Korukonda NIT Warangal
	01:00 pm - 02:00 pm	Lunch	
	02:00 pm - 03:30 pm	Power Electronics Solutions for EVs and Their Impact on Power Grid	Dr. Aakash Singh NIT Manipur
	03:30 pm - 05:30 pm	Introduction to Cyber-Physical Power System	Dr. S. K. Parida IIT Patna
Day-3 09-09-2026	09:30 am - 11:30 am	Solar Inverter Challenges & Mitigation Strategies for both Solar Powered Off-grid and Grid-tied Applications	Dr. Simanta Kumar Samal NIT Jamshedpur
	11:30 am - 01:00 pm	AI-Based Predictive Maintenance of Power Electronic Systems	Mr. Kaushlendra Singh Sisodia, Director, UniConverge Technologies Pvt. Ltd.
	01:00 pm - 02:00 pm	Lunch Break	
	02:00 pm - 03:30 pm	Robust PID Design for Power Electronic Converters: Theory to Implementation	Dr. Tarakanath Kobaku BITS Pilani
	03:30 pm - 05:30 pm	Voltage and Power Control of Grid-Edge Inverter-Based Resources Using Deep Reinforcement Learning	Dr. Dr. Shailendra Singh NIT Agartala



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Date	Time	Topic	Expert
Day- 4 10-09-2026	09:30 am - 11:30 am	Scalable Energy Management Solutions using IoT Enabled Digital Twin of Microgrids	Dr. Aftab Alam BIT Mesra
	11:30 am - 01:00 pm	Power converters for sustainable energy	Dr. M. Raghuram NIT Calicut
	01:00 pm - 02:00 pm	Lunch Break	
	02:00 pm - 03:30 pm	Solar PV–Integrated EV Charging Systems: Power Quality Challenges and Advanced Converter Control	Dr. Manash Kumar Mishra NIT Manipur
	03:30 pm - 05:30 pm	AI-Driven Active Power Filter for Power Quality Improvement in Grid-Connected Electric Vehicle Charging Systems	Dr. Ranjeeta Patel KIIT Deemed to be University, Bhubaneswar
Day- 5 11-09-2026	09:30 am - 11:30 am	EV Batteries Beyond Mobility: Chemistry, Degradation, Second Life, and Circularity	Dr. Deepak Kumar MNNIT Allahabad
	11:30 am - 01:00 pm	Board PFC EV chargers	Dr. Arun Kumar Verma IIT Jammu
	01:00 pm - 02:00 pm	Lunch	
	02:00 pm - 03:30 pm	Model-Based Unconstrained and Constrained Robust Control of Power Electronic Converters	Dr. Tarakanath Kobaku BITS Pilani
	03:30 pm – 04:30 pm	Power Quality Challenges in Grid-Connected Electric Vehicle Charging Systems	Dr. Ravinder Kumar NIT Uttarakhand
	04:30 pm – 05:00 pm	Assessment MCQ Test (<i>Based on topics discussed on day 4 and day 5</i>) + Feedback	
	05:00 pm – 05:30 pm	Valedictory	

*** Note: All lectures will be conducted in online mode through Webex Platform.