



## Power Electronics for Renewable Energy and Electric Vehicles

**August 19 - 23, 2019**

Venue: Academy, Prabha Bhawan, MNIT  
Jaipur

<http://academymnit.wordpress.com>



**Chairman, Advisory Board, EICT Academy &  
Director MNIT Jaipur**  
Prof. Udaykumar R. Yaragatti

**Honorary Academic Chair, EICT Academy**  
Prof. V. Sinha

**Chief Investigator, EICT Academy**  
Prof. Vineet Sahula, ECE

**Co- Chief Investigators, EICT Academy**  
Prof. L. Bhargava, ECE  
Dr. Pilli Emmanuel Shubhakar, CSE  
Dr. C. Periasamy, ECE  
Dr. S. J. Nanda, ECE  
Head, ECE (Prof. D. Boolchandani)

**Preamble (Electronics & ICT Academy)**  
Government of India had announced a National Policy on Skill Development, which has set a target of skilling 500 million people by 2022 in the domain of Electronics & IT. Under the plan scheme of "Digital India Manpower Development". MeitY has set up seven (07) Electronics and ICT Academies as a unit in 03 IITs, 03 NITs and 01 IIIT with an objective of faculty/mentor development/up gradation in the areas related to Electronics & ICT leading ultimately to improved employability of graduates/diploma holders. MNIT Jaipur has set up such an academy for providing specialized training to faculty and industry persons in the states/UTs of Rajasthan, Gujarat, Daman & Diu, Dadra Nagar Haveli.

### (A) Issues-

1. IT Hardware and Electronics Manufacturing industry- availability of properly trained, skilled and qualified manpower
2. Number of quality PhDs generated in IT / Computer Science is very low
3. In E & ICT domain- there is a very high degree of obsolescence of existing technologies and faster emergence of newer technologies

### (B) Approach-

1. A focused faculty training/updation programme for IT, Electronics and related sectors
2. Spreading up and continuous updation regarding Emerging Technology
3. Training and consultancy services for Industry
4. Design, Develop and Deliver specialized modules for specific research areas and Industry
5. Providing advice and support for technical incubation and entrepreneurial activities

An intensive one-week training programme is being organized for faculty of engineering and technological institutions. It is also open to persons from industry and doctoral students of Indian organizations. The objective is to provide an exposure to the participants to the recent trends in "Power Electronics for Renewable Energy and Electric Vehicles" through interaction with experts from different parts of the country as well as from other foreign countries. The technical program will include state-of-the-art lectures, discussion/presentation and Lab sessions.

### Programme topics

1. Power electronics interface for renewable energy resources (PV, wind)
2. Microgrid control and power quality issues.
3. Power Quality issues and challenges in grid interface PV.
4. EV history, battery technology, and National mobility mission 2020.
5. EV charging and control (Unidirectional, Bidirectional, and Wireless).
6. PFC Rectifier and DC-DC converter technology for EV as an application. Vehicle to Grid and Grid to Vehicle (V2G & G2V) bidirectional power flow.
7. Lab session on Hardware development, Converter and PCB designing

### Invited Experts

1. Dr. Akshay Kumar Rathore, Concordia University, Canada
2. Prof. Sheldon Williamson from UIT, Oshawa
3. Prof. GopaKumar IISC Bangalore
4. Prof. Vinod Khadkikar, MIT, UAE

**Coordinator:** Dr. Arun Kumar Verma [arun.ee@mnit.ac.in](mailto:arun.ee@mnit.ac.in) 9549650188 (M)

### Registration:

Registration is open to faculty, industry persons, doctoral and postgraduate students of programmes related to Electronics and Comm. Engg, Computer Science and Electrical Engineering.

Participants will be admitted on first-come first-served basis.

Register on line at - [http://www.mnit.ac.in/eict/acad\\_training\\_prg.php](http://www.mnit.ac.in/eict/acad_training_prg.php)

### Fee:

(A) The one-time registration fee of Rs. 500/- is to be paid by each participant attending first time, irrespective of affiliation. This fee is not applicable for those participants, who have attended any academy training programme earlier.

(B) (i) The participants from academia and research scholars are required to pay a further fee of Rs. 2000/- (faculty/research-scholars). Rest expenditure is sponsored by MeitY through Electronics & ICT Academy at MNIT Jaipur.

(ii) The participants from industries, UG/PG students are required to pay a further fee of Rs. 5000/-.

(iii) Applicable relaxation for SC/ST candidate is 50%.

(iv) Fee once paid will not be refunded back, however, it may be adjusted to another FDP.

(C) The fee covers the participation in the programme, registration material including tutorial notes, boarding (breakfast/lunch) on all the days of the workshop. The travel and other expenses would have to be borne by the participants or their parent-organizations.

(D) Complimentary lodging for a very limited number of participants is available in Guest rooms of Aurobindo hostel. Also, accommodation in Guest-house-2 can be arranged on first-come first-serve & additional payment basis.

(E) The organizers should receive the registration amount through online payment/NEFT/IMPS. → For any other query else then this FDP, email us at [academy@mnit.ac.in](mailto:academy@mnit.ac.in)

### Account Name

Electronics and ICT Academy MNIT Jaipur

### Bank address

ICICI Bank, MNIT Campus Branch

Account Number

676801700483

IFSC Code

ICIC0006768