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**Shri Renji V Chacko, CI (NaMPET) & Head PEG (CDAC)**

## About National Mission on Power Electronics Technology (NaMPET):

National Mission on Power Electronics Technology NaMPET is a national mission program launched by the Ministry of Electronics and Information Technology (MeitY), Govt. of India, with a vision to provide the country with the capability to become a dominant player in Power Electronics Technology. Through this National level R&D Programme, the Research, Development, Deployment, and Commercialization of Power Electronics Technology are envisaged by enhancing the indigenous R&D expertise and infrastructure in the country with active participation from academic institutions and industries. Centre for Development of Advanced Computing, CDAC, Thiruvananthapuram, a premier R&D organization under MeitY, is the Nodal Centre coordinating the activities of NaMPET. The ongoing third phase of NaMPET is focusing on Technology development in key areas such as e-mobility, Smart grid, Wide Band Gap devices, etc. along with Awareness creation activities.

## About Centre for Development of Advanced Computing (CDAC):

CDAC undertakes application-oriented research, design, and development in electronics, so as to generate state-of-the-art producible, marketable, field-maintainable products and systems. The Power Electronics group has wide experience in developing successful power electronics products/systems, and a very good industry interaction by way of transfer of technology, field implementation, etc. It has a very close association with reputed academic institutions like IISc, IITs, NITs, etc. CDAC has contributed significantly to the growth of the industry through the indigenous development of commercially viable products and systems, foreign technology absorption, consultancy, training, and turnkey implementation of contract projects.

## About IIITDM, Kancheepuram:

The course will be organized by the department of Electronics and Communication Engineering, Indian Institute of Information Technology Design & Manufacturing (IIITDM Kancheepuram), Chennai. It is a Centre of Excellence for technical education and research established in 2007 by the Ministry of Human Resource Development, Government of India. To pursue design and manufacturing-oriented engineering education and research and for promoting the competitive advantage of Indian products in global markets. The institute is located on a 51-acre campus on the outskirts of Chennai, off Vandalur-Kelambakkam road. The Institute is presently offering UG, PG, and Ph.D. programs in Computer Engineering, Electronics and Communication Engineering, and Mechanical Engineering.

## About Department of ECE:

The Department of Electronics and Communication Engineering was started in 2008 with 20 students in the undergraduate program. Now, our strength is 452 out of which we have 18 faculty members, 7 technical staff, and 427 students. In addition to the UG course, the department runs the dual degree program, PG course, and Ph.D. program in different areas of specialization. The department of ECE offers an IT-enabled design and manufacturing-based curriculum that helps the students to promote their problem-solving skills and innovate new technologies. The department offers interdisciplinary courses and projects for providing cross-cutting knowledge to the students to pursue their interests.

# Short Term Course on Grid Power Electronics Technology

(Physical Mode)

26-30, April 2023



**Organized by**

**Department of Electronics and Communication Engineering  
Indian Institute of Information Technology, Design and  
Manufacturing, Kancheepuram, Chennai – 600127.**



**An Initiative of**



सत्यमेव जयते

**Ministry of Electronics and  
Information Technology  
Government of India**

**Under the aegis of**

**NaMPET Phase III**

**National Mission on**

**Power Electronics Technology**

**Towards Power Electronics Excellence**

**Nodal Centre**



**Centre for Development  
of Advanced Computing  
(CDAC), Trivandrum**

## Preamble:

The flexible and efficient integration of renewable energy sources and electrical vehicles are possible using grid power electronics technologies. Despite having the stringent requirements for stability and safety on generation, transmission, distribution and utilization sides, they used to fulfil critical roles in various utility applications as well. For ensuring safe and reliable operation, synchronize grid power electronic system under abnormal conditions of the grid becomes critical for grid stability. The proposed workshop covers grid power electronics system including integration of RESs and their control, various converter topologies, Power quality and Control of grid power electronics system in unbalanced grid etc.,

## Topics:

- Future Electric Grid with Power Electronics based Utility Interface.
- Grid integration of renewable energy systems including power quality.
- Control of grid power electronics system in an unbalanced grid.
- Renewable-based off-Grid/Grid-Interactive systems.
- Topology of grid power electronics system.
- Power quality issues of aggregated grid power electronics system.
- Applications of DC/DC converters.
- Optimization algorithms and their application in power electronic systems.
- Design, control, and application of Power Filter Technology.
- Grid synchronization techniques for grid-connected power converters.
- Energy storage technologies for hybrid energy systems.
- Control of Induction generators and PMS generators and design.
- Maximum power point tracking of wind & PV systems.
- Micro-inverter for grid integration of solar modules.
- Application of Resonant Converters in Grid Power Electronics Technology.

## Resource Persons:

Faculty members/Scientists from IITs, NITs, CDAC, industries, and R&D organizations.

## Who Can Attend:

The faculty, Post Doc., Ph.D. scholars, PG/UG students, and working professionals from various industries can attend this STC.

## Registration:

The participants are requested to register online by using the following link:

<https://forms.gle/4ZDwAJ5bYFGVyWMN9>

**The Transaction ID, Proof of Payment, Date of Transaction, Amount, and some basic information is required to complete the online Google form.**



Category	Fees
Professionals from Industries	Rs. 2000*
Faculty	Rs. 1500*
Post Doc/Ph.D. Scholar/P.G./U.G. Student	Rs. 1000*

**\*inclusion of 18 % GST**

Interested candidates are required to pay the registration fee only through **SBI Collect** with the below-mentioned steps. Upon paying the registration fees, the participants need to register themselves by filling out the google form, which can be accessed using the above-mentioned link. The number of participants is limited and will be selected on a first-come-first-serve basis. On completion of the STC Certificates will be provided to the participants based on their attendance.

**Last date for registration: 10-04-2023**

The non-refundable registration fee will be accepted only through **SBI Collect**. The registration fee includes course materials, certificates, and refreshments (Lunch and Snacks). The confirmation of participation would be sent through email.

**No Cheque/ DD/ Cash payments are accepted.**

## Accommodation:

A Twin shared accommodation is available in the Guest Hostels of the IIITDM for outstation participants with an advance request on a first come first serve basis and nominal chargeable basis (Rs. 250/day).

## Payment Details:

For making online payments, participants are requested to click **SBI Collect** link and follow the provided steps:

<https://www.onlinesbi.sbi/sbicollect/>

✓ **terms & conditions | Proceed | State: Tamil Nadu | Type : Educational Institution | Go | Educational Institution : IIITDM -EDUCATIONAL EVENTS | Submit | Payment Category: Grid PET 2023 | Fill in the details and pay.**



**For any Query Feel Free to Contact:**

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