

REGISTRATION FORM

Short Term Course on
**Control of Power Electronic Converters in
Renewable and Transportation Applications
(CPRTA-2023)**

28th Sep– 02nd Oct, 2023
(Physical mode)

Department of Electrical Engineering, SVNIT,
Surat

1. Name Dr/Mr/Ms: _____

2. Qualification: _____

3. Designation: _____

4. Department: _____

5. Experience: _____

6. Institutional Address: _____

7. E-mail (for notification of acceptance): _____

8. Mobile No.: _____

9. Details of Fee Amount: Transaction ID and date _____

10. Accommodation required: YES / NO

I declare that the details furnished above are correct to the best of my knowledge and belief. I also undertake to abide by the rules and other conditions prescribed by S. V. National Institute of Technology, Surat.

Place: _____
Date: _____ Signature _____

Registration Link:
Kindly fill the google form for registration
<https://forms.gle/su9sgG5KMDLVEbaG7>

Participation Fee Structure

- Practicing engineers/Professionals: Rs. 2500/-
- Academicians/Scientist/Researchers: Rs. 2000/-
- Students (UG/PG/Ph.D.): Rs. 1000/-

How to apply?

The non-refundable registration fee should be sent through Net-banking/Online Payment.

Bank Account Name : **Director, SVNIT-CCE**

SBI Account No. : **37030749143**

Bank Name : **State Bank of India**

IFSC Code : **SBIN0003320**

Branch : **SVCET Branch**

While paying through the net-banking, in remarks the purpose is to be written as “CPRTA-2023 Registration Form”.

Important Dates

- Last date of Registration: **20th Sep, 2023**
- Notification Confirmation: **22th Sep, 2023**

Accommodation

Accommodation to the **outside** participants will be provided in institute guest house **on request**, made well in advance **at an additional cost**.

Patron

Prof. Anupam Shukla, Director, SVNIT, Surat.

Co-Patron

Dr. Ashish K. Panchal, Head, DoEE

Conveners

Dr. R. Chudamani

Dr. M. A. Mulla

Coordinators

Dr. Rajasekharareddy Chilipi

Dr. Kunisetti V. Praveen Kumar

Dr. Jammala Venkataramanaiah

Dr. Suresh Lakhimsetty

Dr. Mahesh Aeidapu

DEPARTMENT OF ELECTRICAL ENGINEERING
S. V. NATIONAL INSTITUTE OF TECHNOLOGY
Ichchhanath, Surat-395 007, GUJARAT.
Phone: 0261-2201579

Email for correspondence:
cprta2023@gmail.com

Call for Participation

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on

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Converters in Renewable and
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Organized by



DEPARTMENT OF ELECTRICAL ENGINEERING
S. V. NATIONAL INSTITUTE OF TECHNOLOGY
Ichchhanath, Surat-395 007, GUJARAT

Under the aegis of



NaMPET Phase III
National Mission on
Power Electronics Technology
*Towards Power Electronics
Excellence*

An Initiative of



Ministry of Electronics
and Information
Technology, (MeitY)
New Delhi

Nodal Centre



Center for
Development of
Advanced Computing,
Trivandrum

About NaMPET

National Mission on Power Electronics Technology (NaMPET) is a national mission programme 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, Research, Development, Deployment and Commercialization of Power Electronics Technology is 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. Considering the impact, created by the activities under the first and second phase of NaMPET, MeitY initiated the third phase of NaMPET (**NaMPET Phase-III**) aiming further strengthening of power electronics technology base in the country.

About 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 of developing successful power electronics products/systems, and a very good industry interaction by way of transfer of technology, field implementation etc. It has very close association with leading academic institutions like IISc, IITs, NITs etc. CDAC has contributed significantly to the growth of industry through indigenous development of commercially viable products and

systems, foreign technology absorption, consultancy, training and turnkey implementation of contract projects.

About SVNIT

The institute was established as Sardar Vallabhbhai Regional College of Engineering & Technology in 1961 at Surat in State of Gujarat and was upgraded by Government of India as a National Institute of Technology on 4th October, 2002. The institute is celebrating its Golden Jubilee Year in 2011-2012. The Institute offers seven under graduate, and several post graduate and doctoral research programs of very high standard in various disciplines of engineering and applied sciences. The institute has an excellent placement record with a number of top ranking companies visiting the campus every year.

About the Department

The department is one of the pioneering departments of the Institute. Over the years, the department has progressed at a rapid pace with development in both the spheres of infrastructure facilities and academic programs. The department has highly qualified faculty members engaged in teaching and research in various fields of Electrical Engineering. The department offers Under Graduate course in Electrical Engineering and Post Graduate programs in Power Electronics & Electrical Drives, Power System and Instrumentation & Control. The department offers Ph.D. programme to promote research activities in the various areas of Electrical Engineering.

Course Objective

Increased concern of energy efficient power conversion has lead tremendous growth of power electronics based energy conversion in last two

decades. Digital controllers are the main backbone of power electronics system control. The reliability and efficiency of power electronics system is greatly contributed by its controller designing.

This course aims to discuss the recent advancement in the research and development of power electronic converters, electric drives and grid integration. Evolution and applications of the converters, Induction motors, Permanent Magnet (PM) synchronous motor, and their electronic controller will be discussed in the STTP.

This course will also offer simulation and laboratory sessions for demonstrating the development aspects of power electronic converters and electrical drives for renewable energy sources integration and transportation applications. Various DSPs, STM microcontroller, dSPACE, OPAL-RT etc. will be used for the hands-on and demonstration.

Topics:

- Adjustable speed drives used for marine applications
- Predictive Control strategies for Interior PMSM Drive for EV applications
- Control of power converters for Grid-Connected and islanded operation of Renewable Energy Sources
- Independent control of Dual Output converter for EV applications
- Fault detection and reconfiguration of High-power converters for transportation applications

Resource Persons:

Academician from IITs, NITs, CDAC and professionals from industries

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Key Highlights:

- Expert lectures from IITs and industry experts
- Hands on sessions on DSP, STM32 micro controller, OPAL-RT and dSPACE
- Physical interaction with experts and participants
- Panel discussion with department faculty
- Free working lunch on all days of the course
- Industrial visit based on feasibility

Laboratory demonstrations:

- Demo for Speed control of PMSM drive
- SVM based IM control using Kim-Sul algorithm
- Demonstration on Power Converters for Grid-connected and island operations using TMS Controller
- Demonstration on multi-level inverters using OPAL-RT real-time simulator

Tentative list of speakers:

Prof. Bhim Singh

SERB National Science Chair and Emeritus Professor,
IIT Delhi

Prof. Santanu Kapat

Department of Electrical Engineering
IIT Kharagpur

Prof. Deepak Ronanki

Department of Engineering Design
IIT Madars

Dr. Seshadri Gopalan

Senior Engineer - Power Electronics
Danfoss Drives

Dr. Vijay K. Shah

Senior Principal Engineer
ABB

Experts from C-DAC

*More experts to be added