

About the Program

Modern civilization has become reliant on the unremitting supply of clean electrical power. But the power supplied by the grid and transmission system may not be always clean and continuous. In addition to the advancement in power electronics and technology, the power and voltage requirement of the industrial applications also reached a higher level and better power quality. The researchers have invariably utilized, modified, tested, and implemented the various two-level inverter and multilevel inverter configurations for a large number of applications for medium/high power and medium/high voltage systems for power quality enhancement. The harmonic filtering and minimization, power factor improvement, reactive power compensation, static var compensation, and drives are among the main applications. The conventional controllers as well as advanced controllers have been exploited for their efficient and effective performance. Recently, Artificial Intelligence (AI) based controllers are used in harmonic filtering using MLI with higher efficiency and more dynamics; the researchers have reported various methods in the literature for various applications.

The course is intended to cover all the traditional as well as advanced topics of power filtering and their control including modeling and simulations.

About the Institute

The institute, one of the pioneering engineering institutions of the country, was established in 1961 as Sardar Vallabhbhai Regional College of Engineering & Technology and was given a status of National Institute of Technology, in 2002. At present, there are six undergraduate courses, seventeen postgraduate courses and

Ph.D. programmes in all disciplines of engineering and applied sciences. It has an excellent placement record with a number of top ranking companies visiting the campus.

The institute is located at Surat, about 260 kms North of Mumbai and is very well connected by rail and road links to Mumbai as well as Ahmedabad (250 kms)/Vadodara (150 kms). The institute is approximately 10 kms away from Surat Railway Station and 10 kms from the Surat Airport (STV). Surat is the industrial city with historical importance and is well known for Textile, Jari and Diamond industries. The leading industries like RIL, ONGC, Kribhco, L&T, ESSAR, NTPC, and GAIL are established in Surat Hazira area.

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 programmes. The department has highly qualified faculty members engaged in teaching and research with the aim of achieving excellence in the field of Electrical Engineering.

The department offers Under Graduate course in Electrical Engineering and Post Graduate programmes in **Power Electronics & Electrical Drives** and **Power System**. The department offers Ph.D. programme to promote basic research activities in the various areas of Electrical Engineering. The consultancy and testing services are also rendered by the department.

Sardar Vallabhbhai

National Institute of Technology, Surat,

Gujarat - 395007

TEQIP (III) sponsored

ONE WEEK SHORT TERM COURSE ON

Power Electronics for Distributed Generation and Electrical Drives

2nd March 2020 to 06th March 2020

Organizing Committee

Dr. Sabha Raj Arya, Dr. Rakesh Maurya,

Dr. Shailendra Kumar, Dr. Rajasekhara

Reddy Chilipi, Dr. H.G. Patel and

Prof. S.N. Sharma



Organized by

Department of Electrical Engineering.

S. V. National Institute of Technology,

Surat-395007, Gujarat, India.

Registration and General Information.

Applications for the participation in the 'course' should reach in the attached format via regular mail at the following address:

Dr. Sabha Raj Arya / Dr. Shailendra Kumar

Organizing committee (PEDG&ED),

Electrical Engineering Department,

S. V. National Institute of Technology, Surat, Gujarat, India, 395007.

The last date of reaching applications is 2^{ed} February, 2020. The candidates would be informed of their selection through E-mail by **15th February, 2020.**

The breakfast, working lunch will be provided to the participants. Limited seats (Approx. 45) are available in this course. **Selection will be done based on application receiving date in SVNIT and preference will be given to faculty members.** The participants would not be paid TA and DA.

Accommodation

Suitably furnished accommodation will be made available, if requested in advance, in the hostels/guest houses of the SVNIT on nominal payment basis for out stationed candidates on twin sharing basis (Non AC-200/AC-300per Person).

Address for Communications:

Dr. Sabha Raj Arya / Dr. Shailendra Kumar

Organizing Committee (PEDG&ED)

Department of Electrical Engineering

S. V. National Institute of Technology,

Ichchhanath, SURAT, Gujarat - 395 007.

Tel : 0261- 2201560 and 2201663

E-mail :sra@eed.svnit.ac.in, sabharaj79@gmail.com

and er.dwivedi88@gmail.com

Mo:8511034177, 9716379527

Course Content

- Power Electronics and it applications
- Design of passive filter, custom power devices and adaptive control algorithm.
- Design of DC/DC converter and its application
- Advance control theory and its applications
- Renewal energy sources, power quality and battery charging.
- Advance control system, stochastic filtering and process control.
- Simulation and modelling of various power electronic system using MATLAB.
- Application of optimization algorithms in the area of power electronics.

Who can apply:

Mostly Faculty members and industrial person

Research Scholars and Engineering students.

Speakers:

Faculty members from IITs/NITs/ Others.

Course fee

Students/ Research scholars Rs. 750/-

Institute/ College Teachers Rs. 1000/-

Delegates from industries Rs. 2000/-

The D.D. drawn in favor of "Director, SVNIT-TEQIP IRG payable at 'Surat' should be sent along with the completely filled application forms.

Application Form TEQIP (III) SPONSORED ONE WEEK SHORT TERM COURSE ON

Power Electronics For Distributed Generation and Electrical Drives

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Name and Address of the applicant:

Gender: M/F____ DOB:_____ Age:_____

Qualification:_____

Experience:_____

Designation:_____

Mobile:_____

Email:_____

Accommodation required? Yes/No:_____

Address of Sponsoring Authority:

PAYMENT DETAIL:

DD No._____ Date_____

Rs. _____ Bank Name:_____

Signature of the Applicant

The applicant will be permitted to participate in the above program if selected. Further, I have personally talked with the applicant and the applicant seemed to be sure to attend the course, if selected.

Signature of Head of the Institution with Seal