

### 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 such power electronic converters used for grid-connected and standalone applications.

### 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, Power System and control & Instrumentation**. 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 (Online)  
ON**

**Control of Power Electronic converters for on  
Grid and off Grid systems**

3<sup>rd</sup> August 2020 to 07<sup>th</sup> August 2020

**Organizing Committee**

**Dr. Aeidapu Mahesh, Dr. J. Venkataramanaiah,**

**Dr. Gangireddy Sushnigdha,**

**Dr. K. V. Praveen Kumar and Dr. Sabha Raj Arya**



**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 fill in the Google Form by using the following link.

<https://forms.gle/CLVqpdnCqLmjeDHb9>

alternatively they can send the application on the following email id as well

**cpec2020.svnit@gmail.com**

**The last date of registration is**

**24<sup>th</sup> July, 2020.**

The candidates would be informed of their selection through E-mail by

**28<sup>th</sup> July, 2020.**

**Address for any Communications:**  
**Dr. Aeidapu Mahesh / Dr. Sabha Raj Arya**  
Organizing Committee  
Department of Electrical Engineering  
S. V. National Institute of Technology,  
Ichchhanath, SURAT, Gujarat - 395 007.  
Tel : 0261- 2201562 (office,EED)  
E-mail : aeidapu.mahesh@gmail.com and  
sabharaj94@gmail.com and  
**Mo: 9034799994, 8511034177**

## Course Content

- Power Electronics and its applications in renewable energy system
- Design of custom power devices and adaptive control algorithm.
- Design of DC/DC converters and its application
- Induction motor drives
- Multi-level inverters
- Advance control theory and its applications
- Renewal energy sources, power quality and battery charging.
- Application of Optimal control system, and filter algorithms.
- 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. 250/-
Institute/ College Teachers	Rs. 500/-
Delegates from industries	Rs. 1000/-

The registration fee should be sent in the form of DD in favour of “**Director SVNIT TEQIP IRG**” payable at Surat

**OR**

**online payment to**

**“Director SVNIT TEQIP IRG”**

A/C No: **0277101028663**

Canara Bank,

Nanpura Branch Surat,

IFSC: CNRB0000277

(kindly save the receipt or take screenshot of the payment)

## Application Form

**TEQIP (III) SPONSORED ONE WEEK SHORT TERM COURSE (Online Mode) ON  
Control of Power Electronic converters for on Grid and off Grid systems  
3<sup>rd</sup> August 2020 to 07<sup>th</sup> August 2020**

Name and Address of the applicant:

Gender:

Qualification:

Experience:

Designation:

Mobile:

Email: (1) \_\_\_\_\_

: (2) \_\_\_\_\_

Address of Sponsoring Authority:

\_\_\_\_\_

### **PAYMENT DETAIL:**

DD/Online transfer ref No. \_\_\_\_\_

Date \_\_\_\_\_

Rs. \_\_\_\_\_ Bank Name: \_\_\_\_\_

### **Signature of the Applicant**

The applicant will be permitted to participate in the above program if selected.

### **Signature of Head of the Institution with Seal**