### **About the Institute**

The institute was initially established as Sardar Vallabhbhai Regional College of Engineering & Technology in 1961 and was upgraded as a National Institute of Technology on 4th October, 2002. SVNIT is one of the pioneering engineering institutions of the country which has contributed many outstanding engineers in India & abroad. It is conducting six UG programs, seventeen PG programs (in addition to three integrated M.Sc. programs) and a Ph.D. program in all disciplines of engineering and applied sciences. Special attention is given to interdisciplinary research. 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 with the aim of achieving excellence in the field of Electrical Engineering. The department offers an Undergraduate course in Electrical Engineering and Postgraduate programs in Power Electronics & Electrical Drives, Power Systems and Instrumentations & Control. The department offers a Ph.D. program to promote basic research activities in the various areas of Electrical Engineering. The consultancy and testing services are also rendered by the department.

### **About the Surat**

Surat is a top ranking industrial city of the country with clean wide roads. It is well known worldwide for textiles, Zari and Diamond industries. Several large scale industries and establishments are located in the city. Surat is situated on the main western railway route between Vadodara and Mumbai. The institute is located at Ichchanath on Surat-Dumas road at a distance of about 10 km from Surat railway station.

## **About Training Program**

Power electronics are the underpinning part of future of the distributed generation. The power converters gained more importance due to their reliability, fast dynamic response, flexibility, and high efficiency while performing the optimal operation in the distributed system to extract the maximum power.

The control of Power Electronics plays a vital role in many applications with a wide variety of systems. There are many classical methods available to control the power converters. The advancement of digital controllers made the implementation of new control strategies to address the challenges of classical control methods.

This course aims to discuss the participant's recent advancement in the research and development of power converters in renewable energy integration. Stand-alone, grid connected energy systems and different control system aspects of applications shall be discussed.

# **Major Highlights:**

In addition to lectures from expert Laboratory Sessions for demonstrating the development aspects of renewable integrations using industry standard ARM Cortex-M4 32-bit microcontroller is arranged.

# **Topics to be covered:**

The program shall discuss

- Power Electronic Converters and their Control Strategies
- PWM Techniques for Power Electronic Converters
- Active Power Decoupling in Single-phase Inverter Systems
- Stand-alone and Grid Connected Solar Photovoltaic Systems
- Stand-alone and Grid Connected Wind Energy Systems
- Single-stage Common Ground Micro-inverters: Fundamentals and Control Realization
- Power Converters for Battery System Integration
- Applications in AC/DC/Hybrid Microgrid, Water Pumping System, PV-STACOM, PV-DVR etc...

# **Call for Participation**

One-Week Short-Term Training Program (Online)

Power Converters in Renewable Source Integrations: Fundamentals to Implementation

21-22, 28-30 August 2021

# **Course Coordinators**

Dr. Mahmadasraf A. Mulla Dr. Sanjay Tolani



Organized by
Department of Electrical Engineering
Sardar Vallabhbhai National Institute of
Technology, Surat.

(An Institute of National Importance of Govt.

of India) Surat-395007, Gujarat, India

# **Registration and General Information**

The program will be organized through google meet. Applications for the participation in the 'course' should fill in the Google Form by clicking on 'registration form' below. The participants are required to send the application form, ID card and Payment details to the following email.

### **REGISTRATION FORM**

Instructions to fill the Google form

- In google form all fields are mandatory.
- Participants have to attach the scanned copies of the Filled Registration Form, Payment Details, and Institute ID card.
- Alternatively, the participants can send the application on the following email id as well

### pcrsi21@gmail.com

The last date of registration is

### 19 August 2021

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

### 20 August 2021

The participants should attend all the sessions.

# **Address for any Communications**

Dr. Mahmadasraf A. Mulla Dr. Sanjay Tolani

Organizing Committee
Department of Electrical Engineering
S. V. National Institute of Technology,
Ichchhanath, SURAT, Gujarat, 395007.

E-mail: mam@eed.svnit.ac.in, sanjay.tolani@eed.svnit.ac.in,

Mobile: 9825113488, 9005510586

### **Course Fee**

Research Scholars: UG/PG/Ph.D. : 1000 /Academicians/Scientists/Researchers : 1500/Delegates from Industries : 2000/-

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 : SVRCET Branch, Ichchhanath, Surat,

Gujarat, 395007.

While paying through the net-banking, in remarks the purpose is to be written as "PCRSI Registration Form".

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

# Who Can Apply?

- Research Scholars
- Teachers of Engineering Colleges
- Practicing Engineers from industries
- PG/UG students

### Patron

• Prof. S. R. Gandhi, Director, SVNIT, Surat.

# **Organizing Committee**

• All faculty members of EED, SVNIT, Surat.

### **Resource Persons**

Academicians from IITs/NITs and other Professionals

# **Other Instructions**

- This STTP will be conducted through Google Meet platform, so the participants should be equipped with the necessary infrastructure.
- In case of any query, feel free to contact the course coordinators.
- Google meet link will be shared to participants prior to the session starts.
- The certificates will be issued based on their attendance in the technical sessions

# **Registration Form**

One Week Short Term Training Program (STTP)

# Power Converters in Renewable Source Integrations: Fundamentals to Implementation

21-22, 28-30 August 2021

Full Name:

Designation:

Department & Institution with Address:

Male/Female:

Mobile:

Open/OBC/SC/ST:

E-mail (Gmail):

Date of Birth:

Academic Qualifications:

Experience (Years):

Teaching:

Research:

Industry:

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 SVNIT, Surat.

Signature of the Applicant