

for their operations, management and control. The course will also focus on the possible remedies to these challenges. The broad contents of the program are:

- Fundamentals of power system operations, control and protection
- Grid integration of renewable energy sources
- Smart grid, distributed generation, grid integration of renewable energy sources
- Power quality, converters, active filters
- Power system protection, synchrophasor technology, wide area measurement system

The eminent professors, researchers and engineers from industry contributing in these areas will deliver the lectures during the program and share their experience and expertise with the participants.

Registration Fees

| | |
|----------------------------|------------|
| Research Scholars/Students | Rs. 2000/- |
| Academia | Rs. 2500/- |
| Industry/R&D Organizations | Rs. 3000/- |

The faculties from the academic institutions, persons from the industries, research scholars and the students can participate in the program. The registration fees for the participation include the charges for refreshment, lunch and registration kit. All payment should be made by a demand draft drawn in favor of "Pandit Deendayal Petroleum University" payable at Ahmedabad. The registration form duly forwarded by the Head of the Institution, accompanied by the demand draft should reach the course coordinator on or before **February 20, 2019**.

Travelling and Accommodation

Participants are required to make their own arrangements for traveling and accommodation. However accommodation can be arranged at the guest houses of PDPU on payment basis by informing coordinators in advance up to 25/02/2019.

Chief Patron

Dr. C. Gopalkrishnan
Director General
Pandit Deendayal Petroleum University

Patron

Dr. T. P. Singh
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Coordinators

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Dr. Vivek J Pandya, Professor, EED, SoT

Co-ordinators

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Short Term Training Program On Advances in Emerging Power Systems Operations, Control and Protection

Department of Electrical Engineering

School of Technology
Pandit Deendayal Petroleum
University
Raisan – 382007
Gandhinagar

05–09 March, 2019

Supported By:

Gujarat Council on Science and
Technology (GUJCOST)



About The University

Pandit Deendayal Petroleum University (PDPU) has been established by Gujarat Energy Research Management Institute (GERMI) as a Private University through the State Act with a vision 'To be an internationally renowned & respected Institution imparting excellent education & training based upon the foundation of futuristic research & innovations'. This objective is being addressed through a number of specialized and well-planned undergraduate and postgraduate programs and intense research initiatives in the domain of science, technology, management and humanities. PDPU has been promoted by Government and Industry to create a world class University to cater the need for trained and specialized human resource with special focus on energy sector.

PDPU got NAAC accreditation with "A" grade and CGPA of 3.39 out of 4 point scale. PDPU is the only private college in Gujarat to get the autonomous status by the University Grant Commission (UGC) in 2018 among other 60 better performing central, state and private universities in country. At present University has several research projects sponsored by various organizations and Industries. Government of India, Ministry of Science and Technology, Department of Scientific and Industrial Research have accord recognition to Pandit Deendayal Petroleum University (PDPU), Gandhinagar as Scientific and Industrial Research Organization (SIRO). The university aims to get the status of "Institute of Eminence (IoE)" and to achieve status of world class university in near future.

About The Institute

School of Technology (SoT) is a constituent school of Pandit Deendayal Petroleum University (PDPU). SoT is a leading institute offering multidisciplinary undergraduate, postgraduate and Ph.D. programmes in Engineering. SoT offers currently B. Tech., M. Tech. and Ph.D. Programmes in Electrical, Mechanical, Civil, Computer, Information and Communication Technology and Chemical Engineering. SoT aims to provide holistic and high quality professional education to the students. It also aims to carry out R&D and strong industry-academic interaction to advance, apply and disseminate knowledge for the benefits of society.

About The Department

The Department of Electrical Engineering has been established in 2010 since the inception of SoT. It offers B. Tech., M. Tech. with specialization in power systems and Ph.D. programs. The department has qualified and experienced faculty members with specialization in diversified areas of electrical engineering. It has state-of-art laboratories with modern equipment and software package so that the students have better opportunity to learn practical aspects of engineering problems. Department has specialized electrical software such as PSCAD, ETAP, MATLAB/Simulink, PSIM and MiPower and DSPACE 1103 for real time digital simulation.

About STTP

The electricity is the most essential and vital factor for the growth of the nation in the

social, industrial, commercial, and agricultural sectors. The growth of power sector at a rapid rate plays a crucial role in the economic progress of any country. The Indian Power Sector has taken a quantum leap in electricity generation 300GW. The reforms, restructuring of power sector and private participation are all the outcomes of the Electricity Act 2003. They lead to improved quality and reliability of power supply and satisfy the ever-increasing demand for electrical energy consumption.

The integration of renewable energy sources (RES) at larger scale to transmission level as well as at smaller scale in form of distributed generation help to cater this ever increasing load demand. The development in power electronics for power transmission in form of FACTS and HVDC has made it possible to transfer large chunks of power over several miles with enhanced stability.

But the integration of RES, operation of power system with power electronics devices, shift in operational paradigm of power system with the emergence of smart grid create many challenges for power system operators. Thus the operation of power system in a secure manner demands a sound knowledge of its characteristics, operation, control, protections, modeling and simulations.

Scope of STTP

The main objective of this program is to enhance the knowledge of the participants with the recent trends in emerging power system operation, control and protection. This course will cover an in-depth discussion and deliberations on the various challenges which will be faced in the future by the electrical grid