

KURUKSHETRA

Kurukshetra is described as DHARAMKSHETRA, with historical and religious importance. Here, the battle of Mahabharata was fought, and Lord Shree Krishna preached the philosophy of "KARMA" as enshrined in the holy book "Shrimad Bhagwad Gita." It is one of the premier pilgrimage center attracting devotees all round the year. Kurukshetra is very well connected by Rail, Delhi-Ambala section, by Road (NH1, connecting Delhi-Chandigarh-Amritsar-Jammu) and by Air (Delhi 160 km and Chandigarh 80 km). The NIT Kurukshetra campus is situated about 10 km from Pipli, Bus stand located on NH1 and about 4 km from Kurukshetra railway station.

NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA

NIT Kurukshetra, formerly known as Regional Engineering College, Kurukshetra was founded in 1963. It was conferred upon the NIT status, with Deemed University on June 26, 2002. The Institute offers several courses, in various disciplines of B.Tech., M.Tech., MBA and MCA and Ph.D. with an annual intake of about 1500 students. Institute also provides excellent facilities for advanced research in the emerging areas of Engineering, Science, and Technology. The institute has well qualified and dedicated faculty along with supporting staff, laboratories and other infrastructure. The infrastructure is geared to enable the institute to produce technical personnel of high quality.

ELECTRICAL ENGINEERING DEPARTMENT (EED), NITK

The Department offers B.Tech, M.Tech and Ph.D. Degrees. The B.Tech. Course in Electrical Engineering have facility of number of electives in the areas of control systems, power systems and power electronics, which enables the students to specialize in one of the fields i.e. Power Apparatus and Systems; Electronics and Instrumentation; Computer Applications; Information and Control. Presently, the department has three post graduate programs, M.Tech., in Control Systems; Power Systems; Power Electronics and Drives and offers Ph.D. in different areas to keep synergy with the evolving innovations and developments in all disciplines of Electrical Engineering.

PATRON

Padma Shri Dr. Satish Kumar,
Director, NIT Kurukshetra

CO-PATRON

Dr. L. M Saini,
Professor and Head, E.E. Department

COURSE CONVENER

Dr. Ashwani Kumar,
Professor, E.E. Department

COURSE COORDINATORS

Dr. Atma Ram Gupta,
Asstt. Prof., E.E. Department
Dr. Amit Kumar,
Asstt. Prof., E.E. Department

IMPORTANT DATES:

- Last date for submission of registration form: **16th April, 2020.**
- Intimation of selection (on website or by email): on or before **18th April, 2019.**

List of selected participants will also be displayed on the institute website.

Address for Correspondence:

Convener, SGOPRES-2020
Electrical Engineering Department,
NIT Kurukshetra-136 119
Ph: (M) 8950213417, 9896279046

Email: amitkumar357@gmail.com
argupta@nitkkr.ac.in



TEQIP-III Sponsored

Short Term Course

on

Smart Grid: Operation & planning with Renewable Energy Sources and FACTS

(SGOPRES-2020)

(27 April - 01May, 2020)



Organized by

Department of Electrical Engineering,
National Institute of Technology
Kurukshetra
Kurukshetra-136119, Haryana, India

COURSE OBJECTIVES

The utilities all over the world are shifting the paradigm of the electricity operation from the conventional operation to complete automated system. With renewable energy sources integration, the operation of the electricity sector has changed the facets of operation from passive to active distribution systems. In addition, the storage devices like SMES, Super capacitors, pumped hydro etc. are playing key role for the sustainable operation of the system with renewable sources. With the advent of the electrical vehicles, the operation of the system will require analysis for efficient and secure operation of the distribution systems. Since the non-linear loads are increasing day by day, there are harmonic issues that need to be addressed for better energy utilization. In this context, smart grid will provide better solution of the network operation. This short-term course will provide opportunity to enhance the knowledge of the faculty, students, research scholars and interaction with the renowned faculty members for planning the research and projects in the area of smart grids.

COURSE CONTENTS

The course aims to address the following issues related to the modern power systems, but not limited to them.

The objective of the course is to share with the participants technology developed on:

- **Smart Grid Technology**
- **Smart grid technology and protection**
- **Renewable energy integration, FACTS & HVDC**
- **Distributed Generation and D-FACTS**
- **Demand response and home energy management system**
- **AC/DC Micro-grid, Renewable Energy System**
- **Wide area monitoring and control**
- **Integration of Energy storage Devices**
- **Electrical Vehicles in Power Grid**

RESOURCE PERSONS

Eminent experts from premier Institutions of India like IITs, NITs, IISC, and experts from Industries will deliver lectures. Tentative experts who will deliver lectures will be Prof. S. C. Srivastava, IIT Kanpur, Prof. A. R. Abhayankar, IIT Delhi, Prof. Sandeep Anand, IIT Kanpur, Prof. Dheeraj Khatod, IIT Roorkee, Prof. Premlata Jena, IIT Roorkee, Prof. Bhavesh, IIT Roorkee, Prof. Anubrata Dey, IIT Roorkee etc. The experts will deliver talk in that area of smart grid technology.

WHO SHOULD ATTEND?

Faculty members/ research scholars/ students from academic institutes approved by the AICTE/ UGC/ MHRD and Scientists/ Engineers working in Private/ Public/ Govt. organizations/ industries etc. can attend the course. The application should be made on the registration form and should accompany registration fee as below:

Participant's category	Registration fee*
Students/ Research Scholars	Rs. 1000/-
Faculty	Rs. 3000/-
Industry/ R&D / Govt. Organization	Rs. 6000/-
Foreign Delegate (Academia/Industry)	\$ 200

* **Registration fee is non-refundable**
Registration fee includes registration kit, course certificate and sessions tea.

Participants will be selected on first-come-first served basis. The registration form, complete in all respects, duly forwarded by the Head of the Department/ School/ Institute, accompanied by Demand Draft/ Online details of the requisite amount should reach on or before April 10, 2020.

Registration fee is to be paid in advance through Online in Director, NIT Kurukshetra A/c No.

10116885013; IFSC: SBIN0006260. **Please write the short name of STC (SGOPRES-2020) in remarks during online payment.**

The brochure with registration form can be downloaded from Institute website www.nitkkr.ac.in.

The soft copy of the completed application forms along-with the payment receipt should be sent to the e-mail address mentioned in the brochure. However, hard copy is required to submit at the time of registration on the first day of short term course.

ACCOMMODATION & TRANSPORT

The accommodation can be arranged on the request of the participants on payment basis, separately. Rooms are available @Rs. 300/day per room for single person or @Rs. 150/day per room on twin sharing basis in institute international hostel. Limited accommodation in faculty guest house is also available on first come first serve basis. Food can be taken in Senate Canteen by purchasing coupons (Rs 60-80 per meal). No TA/DA will be provided to the participants.

PLACE TO VISIT

BRAHMA SAROVAR: It is an ancient water pool sacred to Hinduism in Kurukshetra, in the state of Haryana in North India. Hinduism lays emphasis on taking bath for internal and external purity. Most religious sites have water pools or sarovar in or near the temple/gurdwara.



JYOTISAR: It is place in Kurukshetra where Lord Krishna gave the lesson of karma to Arjun, which is now known as **Bhagwad Geeta**. There is a temple and old vat

tree at the place. The vat tree is believed to be an offshoot of the tree which was present at the time of Mahabharat war.



MAA BHADRAKALI DEVIKOOP TEMPLE: It is one of the 51 Shakti Peethas of Mata Sati. It is believed that an anklet of Mata Sati fell in the well of Temple. The temple has a ritual that devotees pray for a wish and if the same is accomplished, couples of horses are devoted in the temple. This originates from Mahabharat where Yudhistir devoted couple of horses in the temple after winning the war. Nowadays people devote horses made of mud or precious metal.



STHANESHWAR MAHADEV TEMPLE: This ancient temple, dedicated to Lord Shiva is situated in Kurukshetra. It is the place where the Pandavas along with Lord Krishna prayed to Lord Shiva and received his blessings for victory in the battle of Mahabharata. The ninth Guru, Shri Tegh Bahadur stayed at a spot near the

Sthaneshwar Tirtha that is marked by a gurdwara just besides this temple.



BHISHMA KUND: This is the place where it is believed that Pitamaha Bhishma lay watching the famous battle after Arjun, created a bed of arrows for him. The place now has a temple next to a water tank called the Banganga or the Bhishma Kund.



GURDWARA CHHEVIN PATSHAHI: It was built in the loving memory of the sixth Sikh guru, Hargobind, who visited this place along with his armed retinue. Here the guru clarified doubts of people by explaining the relationship between bhakti, prayer and shakti or power.



REGISTRATION FORM

TEQIP-III Sponsored Short Term Course on

'Smart Grid: Operation & planning with Renewable Energy Sources and FACTS'

(April 27-May 01, 2020)

Title: (Dr./Mr./Mrs./Ms.) :
 Name (in BLOCK LETTER) :
 Sex (M/F) :
 Date of Birth: (dd/mm/yyyy) :
 Designation :
 Organization :
 Address for correspondence :
 Phone :
 E-mail :
 Qualification :
 Category of Registration :
 Accommodation required (Y/N) :

Payment details:
 Draft/Online Details :
 Date :
 Issuing Bank :
 Amount :

Signature of applicant (with date):

Details of Sponsoring Authority

Name :
 Organization :
 Recommended :

(Signature of Head of the Department / Section / School / Institute with Seal)

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