KURUKSHETRA

Kurukshetra, which has religious and historical significance, is referred to as DHARMA-KSHETRA. The Mahabharata battle took place here, and Lord Shree Krishna taught the "KARMA" doctrine found in the sacred text known as the "Shrimad Bhagwad Gita." It is one of the most important pilgrimage sites, drawing followers year-round. Kurukshetra has good rail, air (Delhi 160 km and Chandigarh 80 km), and road (NH1, connecting Delhi-Chandigarh-Amritsar-Jammu) connections. The Pipli Bus stop on NH-44 is approximately 11 km from the NIT Kurukshetra campus, while the Kurukshetra train station is around 6 km away.



NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA

Established in 1963, NIT Kurukshetra was earlier known as Regional Engineering College, Kurukshetra. On June 26, 2002, it was granted NIT status as a Deemed University. With a yearly enrollment of over 1500 students, the Institute provides several courses in B.Tech., M.Tech., MBA and MCA, and Ph.D. disciplines. Additionally, the institute offers top-notch facilities for cutting-edge research in the rapidly developing fields of science, Technology, and Engineering.

DEPARTMENT OF ELECTRICAL ENGINEERING (EED), NIT KURUKSHETRA

The Department of Electrical Engineering offers courses such as B. Tech, M. Tech, and Ph.D. The B. Tech program is run with several elective courses. The department has three M. Tech courses with specialization in Control Systems, Power Systems and Power Electronics and Drives, and offers Ph.D. in different areas, evolving innovations and developments in all disciplines of Electrical Engineering. Recently, an Advanced Power System Lab, Advanced Control Systems Lab & Drone technologies lab with modern equipment has been established. The significant research areas are Power Systems, Power Electronics & Drives and Control Systems.

ORGANIZING COMMITTEE

PATRON
Prof. (Dr.) Brahmjit Singh
Director
NIT Kurukshetra

CO-PATRON
Dr. J. S. Lather
Professor and Head
Department of EED, NIT Kurukshetra

COURSE CONVENORS
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Professor
Dr. Anil Kumar Dahiya
Associate Professor
Department of EED, NIT Kurukshetra

DEPARTMENT OF ELECTRICAL ENGINEERING
National Institute of Technology Kurukshetra
Kurukshetra-136119, Haryana, India

ONE-WEEK SHORT TERM COURSE ON

Emerging Technologies for High Renewable Integration in Smart Grids

ETRISG-2026

(Online Mode)

COURSE DATES	MODE
7th –11th Dec 2026	Online
LAST DATE TO REGISTER 04.12.2026	**INTIMATION NOTICE** by 05.12.2026

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

CORRESPONDENCE

Course Coordinators: Dr. Maneesh Kumar, Dr. Shashi Bhushan Singh, Dr. VVSN Murty Vallem, Assistant Professors

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COURSE OBJECTIVES

The objectives of this **One-week Short Term Course (STC) on "Emerging Technologies for High Renewable Integration in Smart Grids (ETRISG-2026)"** are to provide participants with fundamental knowledge and exposure to Fundamentals of High-Penetration Renewable Grids, Energy Storage Systems (ESS), Microgrids, VPPs, and Hybrid Energy Systems, Digitalization, AI, and Monitoring and optimization algorithms. These technical programs provide a platform for application of effective tools for solving complex problems in renewable energy systems. The course aims to familiarize faculty members, researchers, and students with intelligent approaches for modelling, control, forecasting, energy management, and performance optimization of solar, wind, hybrid, and smart energy systems. It also promotes research and innovation toward developing efficient, reliable, and sustainable energy solutions.



WHO SHOULD ATTEND?

Faculty members/ research scholars'/ PG 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. It is an interdisciplinary course; participants from the following backgrounds: Electrical, Electronics, Instrumentation, Computers, and AI/ML Engineering are encouraged to attend.

RESOURCE PERSONS

- Experts may be invited from Industry/R&D organizations/foreign universities/institutes.
- Faculty members from IITs/NITs/IIITs/ Central & State Universities.

COURSE CONTENTS

The course aims to address the following topics related to smart grid technologies for renewable energy systems, but is not limited to them:

01 Fundamentals of Smart Grids in Renewable Energy Systems

02 Grid Modernization and Infrastructure Transformation

03 Digital Grids and Advanced Communication Technologies

04 Grid Intelligence & Data-Driven Decision Making

05 Enhancing operational efficiency through real-time data analysis

06 Demand Response and Load Management Strategies

07 Smart Metering and Advanced Measurement Systems

08 Future Trends and Emerging Smart Grid Technologies

09 Cybersecurity & Risk Management in Smart Grids

10 AI-Driven Energy Management, Smart Grids, and Electric Vehicle Applications

11 Renewables Integration & System Flexibility

12 Case Studies on Renewable Energy System Design, Optimization, and Performance Enhancement

IMPORTANT DATES

LAST DATE FOR REGISTRATION
04.12.2026

INTIMATION OF SHORTLISTING (through website or email)
by 05.12.2026

REGISTRATION FEE (THROUGH SBI COLLECT)

PARTICIPANT'S CATEGORY	REGISTRATION FEE*
UG/PG Students/Research Scholars	₹ 300/-
Faculty	₹ 500/-
Industry/ R&D	₹ 1000/-

*** Registration fee is non-refundable. Registration fee includes course e-certificate. Selection of the participants will be on a first-come-first-served basis.**

REGISTRATION PROCESS (MANDATORY)

Registration fee is to be paid through **SBI Collect**. The steps are as follows:

1. https://www.onlinesbi.sbi/sbicollect/
2. Under "Select categories" select **"Educational Institutions".**
3. Write in search box: **DIRECTOR NIT KURUKSHETRA**
4. Under payment category select **"ETRISG 2026".**
5. Select your "Participant category" and select the corresponding registration fee amount (and then for remaining categories select Rs 0) and complete the remaining steps.
6. Please write the short name of STC as **ETRISG 2026** in **remarks** during online SBI Collect payment and save a copy of payment receipt.

GOOGLE FORM TO BE FILLED BY PARTICIPANTS (MANDATORY)

The candidates/participants are required to fill the following Google form:

► https://forms.gle/DK2upwMkAsWSZfQA9

In the above Google form, basic details related to participants, transaction details are to be filled. It is **mandatory** to fill the Google form. The above Google form (complete in all aspects) needs to be submitted online through above Google form by **4th December 2026.**