

QIP STC

(Online)

SMART GRID TECHNOLOGY

10-15 January 2022

ORGANIZED BY



Department of Electrical & Instrumentation Engineering

Sant Longowal Institute of Engineering & Technology

(Deemed to be University under MoE, Govt. of India)

Longowal-148106, District Sangrur, Punjab, India

SPONSORED BY



Quality Improvement Programme

All India Council for Technical Education (AICTE)

New Delhi, India

ABOUT THE INSTITUTE



Sant Longowal Institute of Engineering & Technology (SLIET), Deemed to be University, was established in 1991 and is funded by the Ministry of Education (MoE), Government of India. The institute is committed to provide best possible technical education and to cater to the technical manpower requirements with emphasis on practical training in industry. The study programs include various courses at certificate, diploma, B.E., M.Tech., and Ph.D. levels in various disciplines of engineering and technology. All the B.E. programmes offered by the institute are accredited by the National Board of Accreditation (NBA). The institute has a sprawling area of 451 acres of land. Surrounded by lush green land, the campus of the institute extends a beautiful and well developed area with many topographically featured picturesque landscapes, numerous buildings of various nature and stature and a metal road network. The campus presents a spectacle of harmony and natural beauty. It is embedded with all the amenities required for a complete township.

INSTITUTE VISION

SLIET shall strive to act as an international podium for the development and transfer of technical competence in academics through formal and non formal education, entrepreneurship and research to meet the changing need of society.

INSTITUTE MISSION

- Non formal, flexible, modular, multipoint entry programmes in engineering and technology and in the areas like rural development, educational planning, information and management sciences.
- Education and training in modern technology areas.
- Promotion of self development among the students.
- Extension services to industry working population, passed-out students, social organizations and institutions of research and higher learning.
- Close interface with the industry to conduct research on the basis of manpower requirements leading integrated educational planning curriculum development and instructional material preparation in technology and inter-disciplinary areas.
- Promotion of institute-institute linkages for sustainable development of academic and research.

DEPARTMENT OF EIE

The department of Electrical and Instrumentation Engineering is poised to impart technical education related to the development of manpower, from the level of skilled workers to the engineering post-graduates. The focus of the department is to discover the true potential of students by creating a challenging yet interesting curriculum. The department has been awarded a number of sponsored research projects from various Govt. agencies such as AICTE, MoE, DST etc. The department caters to the manpower and technical requirements of various sophisticated and household industries. The courses being run by the department include:

- Integrated Certificate Diploma (DEE)
- Integrated Certificate Diploma (DIN)
- B.E. (Instrumentation & Control Engineering)
- B.E. (Electrical Engineering)
- M.Tech. (Instrumentation & Control Engineering)
- Ph.D. Programme

ABOUT THE PROGRAMME



With the advent of the smart grid and the synchrophasor technology-based Wide Area Monitoring System (WAMS), the power system area is transforming into advanced Information and Communication Technology (ICT) enabled architecture. This has opened up new research areas in the power system domain. The smart grid-enabled modern power system area needs a good knowledge of smart grid technology in addition to the traditional power system knowledge base. The AICTE QIP STC on smart grid aims to provide details about recent trends in smart grid technology. The main topics to be covered in the FDP include:

- Becoming future ready in Energy Sustainable way
- Grid Resilience with Smart Microgrid
- Internet of Things: A Smart Grid Perspective
- Basic Aspects of Smart Grid
- Energy Management Automation in Smart Grid
- Optimization techniques:- State-of-the-art

- Application of Machine Learning and Big Data Analytics in Smart Grid Technology
- Machine Intelligent Forecasting for Hybrid Wind Farms
- Harnessing of Energy from Biomass
- Electric vehicle and Smart Grid
- RES based smart grid technology for sustainable development
- AI application on smart grid Technology
- Impact of Plug-in Electric Vehicles on distribution System
- ICCM of Smart Renewable Energy Grid
- FACTS for Smart Grid
- Workshop on NEP
- Phasor Technology implementation for Voltage Stability Monitoring
- Renewable Energy Integration with Smart Grid

RESOURCE PERSONS

Resource persons from IITs/ NITs/ CFTIs/ other reputed institutions and organizations will deliver expert lectures in the programme.

PROSPECTIVE PARTICIPANTS

The faculty members of the AICTE approved institutions, Research scholars, PG Scholars, participants from Government organizations, Industry, School Teachers, and staff members of SLIET. The seats are limited to 100 candidates. The preference will be on a first-come-first serve basis.

ONLINE REGISTRATION

<https://forms.gle/7PBuYnXDTVHiGtr8>

IMPORTANT NOTE

- An online examination from the contents of the STC is scheduled on 15 January 2022.
- There will be 18 sessions of 2 hours each.
- There is a mandatory requirement of at least 80% attendance and at least 60% marks in the online examination for issue of certificates.
- One lecture will be on The National Education Policy 2020 (NEP-2020).

PATRON

Prof. Shailendra Jain
Director, SLIET

CO-PATRON

Prof. J. S. Dhillon
Dean (Academics), SLIET

CONVENOR

Prof. Surita Maini
Head, Department of EIE, SLIET

COORDINATORS

- **Anshuka Bansal**
Associate Professor
Department of Electrical & Instrumentation Engg.
SLIET, Longowal-148106, Punjab.
Phone 01672253625
Email: anshuka@sliet.ac.in
- **Ashwani Kumar Aggarwal**
Associate Professor
Department of Electrical & Instrumentation Engg.
SLIET, Longowal-148106, Punjab.
Phone 01672253347
Email: ashwani.ist@sliet.ac.in