About NITTTR Kolkata

The National Institute of Technical Teachers' Training & Research (NITTTR), Kolkata, originally established as the Technical Teachers' Training Institute (TTTI) in 1965, was the first of four such institutes set up by the Ministry of Education, Government of India. The other three institutes are located in Chandigarh, Bhopal, and Chennai. These institutes were created as fully centrally funded autonomous institutions to provide pre-service and in-service training to teachers and staff of degree and diploma-level technical institutions. They also play a crucial role in various activities aimed at improving the quality of the technical education system across the country. In recognition of their significant contributions to enhancing the quality of technical education, the Government of India accorded national status to NITTTR Kolkata and its sister institutes in 2003. The Institute's core activities include Education & Short-term Training, Curriculum Development, Learning Resources Development, Research & Development, and Extension Services & Consultancy. AICTE recognizes the short-term training programs conducted by NITTTR Kolkata for consideration under the Career Advancement Scheme (CAS). Additionally, the Institute offers four AICTE-approved, two-year M.Tech. programs in Artificial Intelligence and Machine Learning, Green Manufacturing, Mechatronics Engineering, and Structural Engineering. Recently, NITTTR Kolkata was granted "Deemed University" status by the UGC. NITTTR Kolkata is involved in several national-level projects, such as serving as the nodal agency for the centrally sponsored Community Polytechnic Scheme and designing AICTE-sponsored induction training programs for new engineering and polytechnic teachers. The Institute is also facilitating the integration of Persons with Disabilities (PWD) into mainstream technical and vocational education. With highly qualified faculty and state-of-the-art infrastructure, including well-equipped laboratories, NITTTR Kolkata continues to expand its reach, establishing extension centers in Guwahati and Bhubaneswar, and extending its services to technical and vocational institutions in SAARC and ASEAN countries.

About Electrical Engineering Department

The Department of Electrical Engineering is a core part of the Institute, known for its highly qualified faculty drawn from premier institutions across the country. It has established itself as a leader in offering Long-Term and Short-Term Training Programmes in Electrical, Electronics, and Instrumentation Engineering, meeting the needs of educators in the Eastern region and nationwide. Faculty members are deeply engaged in cutting-edge research in various areas, including Electrical Drives, Measurement and Instrumentation, Medical Electronics, Microcontrollers, PLCs, and Control Systems. The Department is also advancing research in key areas of electrical engineering, such as renewable energy systems, power electronics, smart grids, and energy storage technologies. These efforts contribute to the development of energy-efficient systems and the integration of renewable energy into power networks. In addition to research, the Department provides consultancy services to technical institutions and manages educational projects supported by industries, governments, and international bodies. These activities enhance the connection between academia and industry, promoting innovation and practical application of new technologies. Since the 2005-2006 academic year, the Department has offered M.Tech programme in Mechatronics Engineering, addressing the growing demand for expertise in automation industries.

STTP Objective:

This **Hybrid Mode** STTP titled **"Microgrid System Monitoring and Control with LabVIEW"** aims to empower faculty members, researchers, and industry professionals with advanced knowledge and practical skills in the monitoring and control of microgrid systems. The program emphasizes the integration of **LabVIEW** as a versatile tool for designing and implementing real-time solutions in microgrid environments. With a focus on theoretical concepts and hands-on applications, the STTP seeks to explore innovative strategies for enhancing the efficiency, stability, and reliability of microgrids while fostering research and development in sustainable energy solutions. Participants will gain critical insights and expertise to address modern challenges in renewable energy integration and hybrid energy systems.

Who Will Benefit:

- **University and College Faculty**
- **Lecturers and Instructors**
- **Students and Researchers**
- **Industry Practitioner, Field Engineer, and Technical Staff**

Program Contents:

- **Overview of Sustainable Energy Systems & Power Electronics**
- **Importance of Power Electronics in Microgrid Systems**
- **Power Converters**
- **Design of Microgrid Systems**
- **Power Management and Control in Microgrid System**
- **Simulation of different Microgrid systems using LabVIEW.**

Experts/Resource Persons:

Expert lectures and hands-on sessions will be conducted by esteemed faculty members from NITTTR and industry professionals from VVDN Technologies.

Registration Fee: 500/- Rupees only.

Important Dates:

Last date for registration: **15th December 2024**

Hybrid Mode STTP: **18th – 20th December 2024**

Registration Form:

*Detailed online registration form is available on NITTTR Kolkata website.
http://www.nitttrkol.ac.in/

Certification:

E-Certificates will be provided to those participants who have attended the program with mandatory minimum attendance in **80%** lectures among scheduled lectures.

Contact Details:

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Short-Term Training Program (STTP)

On

"Microgrid System Monitoring and Control with LabVIEW"

STTP/FDP-2024

18th – 20th December 2024

Organized by

Department of Electrical Engineering
National Institute of Technical Teachers' Training & Research (NITTTR), Kolkata

In Collaboration with

VVDN Technologies Pvt Ltd.

Venue

NITTTR Kolkata Extension Centre, Bhubaneswar, Government Polytechnic Campus, Chandrasekharpur, Bhubaneswar-751923, Odisha.

Coordinator:

Prof. Gayadhar Panda

Professor, Department of Electrical Engineering,
NITTTR Kolkata, West Bengal 700106, India