



NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL

An Institute of National Importance

MALAVIYA MISSION TEACHER TRAINING CENTRE

Established under the Scheme of MMTP, University Grants Commission (UGC), Ministry of Education,
Government of India

One-Week (Online) Short Term Training Programme on

Technology-Driven Energy Markets:

AI, Blockchain, and Policy Approaches for Smart Grids

8-13 December 2025

STTP Overview:

The global energy sector is undergoing a paradigm shift driven by rapid technological innovation, decentralization, and the growing demand for sustainability. Smart grids have emerged as the backbone of this transformation, enabling two-way flows of electricity, information, and value. Traditional energy markets, once dominated by centralized utilities, are now evolving into technology-driven, decentralized ecosystems where artificial intelligence (AI), Blockchain, and supportive policy frameworks play pivotal roles. This program provides participants with a multidisciplinary understanding of how these emerging technologies are reshaping electricity markets. AI enables predictive analytics for demand forecasting, market optimization, and asset management. Blockchain introduces transparency, trust, and peer-to-peer energy trading opportunities. At the same time, policies and regulations are being redesigned to support innovation while ensuring security, fairness, and resilience in energy systems. By combining technical insights, business models, and policy perspectives, this course aims to equip participants with the tools to analyze, design, and innovate within next-generation energy markets.



Scan the QR code
to Register

Last date for Registration: 30-11-2025

NO REGISTRATION FEE

Major Course Content:

- Energy Market Fundamentals and Economics of smart grid energy market
- Decentralized Markets and Transactive Energy
- AI/ML in Power Markets with hands on "building AI model for load or price forecasting.
- Blockchain for Smart Grid; Hands on – Case study with group exercise.
- Smart Grids & Data Analytics
- Market Regulation & Policy, Case studies
- Grid Integration & Renewables / Virtual Power Plants
- Next-generation technologies – 5G/IoT in energy markets, digital twins

Resource Persons for this program:

Faculty members from NIT Warangal and Academicians in the concerned field from IITs, NITs and Industry Experts will be invited to deliver lectures in the program.

Course duration:

There will be 6-days (36 hours) of engagement including live sessions, Hands-on sessions, assignments etc.

Certification criteria:

The participants must maintain 80% of Attendance, need to submit Assignments in time, and qualify in the final exam with 60% of marks. Candidates will be issued certificates on successful completion of the course.

Who can apply ?

Undergraduate and Post-Graduate faculties from State and Central Universities/Institute, Affiliated Colleges, Constituent Colleges, Private Colleges, Polytechnic Colleges etc. are eligible.

Selection Criteria:

Selection will be done based on first-come-first-serve to a maximum number of 100 Faculty/industry participants. Students/PhD scholars are allowed to participate. The list of selected participants will be intimated through e-mail. There is **No Registration Fee** to attend this program.

Note: This Programme shall be considered equivalent to One Week FDP/STP for regularization/ CAS.

As per UGC guidelines, attending Online Courses under MMTP, UGC will be treated as on duty/duty leave.

About MMTTC of NIT Warangal:

The Malaviya Mission Teacher Training Centre (MMTTC) was established at NIT Warangal in the year 2015 under the scheme "Malaviya Mission on Teacher Training Program (MMTTP)" sponsored by the University Grants Commission (UGC), Ministry of Education, Government of India. Since its inception, the Centre has successfully organized various programmes in the form of NEP Orientation programs, Short-term programs, Refresher Courses, FDP programmes and one-month duration Faculty Induction Programme (FIP) for Higher Education Faculty in various theme areas of Science and Technology, Humanities and Social Sciences from which more than 8000 participants have benefitted. Other activities of the MMTTC include offering online courses, curriculum design, carrying out research in educational technology and pedagogy and integrating ICT into the Teaching-Learning process. The MMTTC NIT Warangal has been conducting various programs, online and offline following MMTTP Guidelines and UGC Regulations.

How to Apply? :

Interested participants are required to register by using the online form, link provided below, on or before Last Date. There is **NO REGISTRATION FEE**. It is mandatory to submit the **Nomination Form** from your organization to consider your application.

Registration link: <https://mmc.ugc.ac.in/registration/Index>

or through Google Form: <https://forms.gle/PWadwH47JSt3kdzE9>

Program Coordinators

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Important Dates:

Last Date of Application: 30th November 2025

Intimation of Selection: 31st November 2025

MALAVIYA MISSION TEACHER TRAINING CENTRE **NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL**

Prof. M. Sailaja Kumari

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NIT Warangal

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