



5-day Online FACULTY DEVELOPMENT PROGRAM (FDP)

ON

Emerging Trends in Machine Learning and Advanced Functional Materials

(6th - 10th July, 2026)

Organized by

CENTRE FOR TEACHING AND LEARNING, NIT Warangal

(Established under the PMMMNMTT Scheme, Ministry of Education, Govt. of India)

in association with

Department of Metallurgical and Materials Engineering & Department of Chemistry

National Institute of Technology Warangal

Preamble:

The Centre for Teaching and Learning (CTL) has been established at NIT Warangal with grants from the Ministry of Education, through its scheme "Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMNMTT)". Under this Scheme, a separate building has been built exclusively for the CTL activities, with the state-of-art training facilities that include a studio for production and uploading of video and e-lectures on various subjects of higher education, training halls to train the faculty in various theme areas of Science and Technology, humanities and social sciences, linguistics and communication skills, pedagogy and cognition evaluation, etc. among others. One of the important objectives of the Centre is to conduct training programmes for the aspiring, newly inducted and in-service faculty in science, engineering, social sciences disciplines in higher education. Other activities of the CTL include preparation of print and e-learning materials, offering on-line courses, curriculum design, carrying out research in educational technology and pedagogy and integrating with ICT into teaching-learning process. The CTL has special programmes of training for the marginalized and women-faculty.

About FDP:

The FDP on "Emerging Trends in Machine Learning and Advanced Functional Materials" aims to equip participants with interdisciplinary knowledge at the interface of data science and material innovation. The program will cover fundamental and advanced concepts of machine learning, including supervised and unsupervised learning, neural networks, and data-driven modeling, with a focus on their applications in materials discovery and design. Participants will gain insights into advanced functional materials such as nanomaterials, biomaterials, and energy-related materials, emphasizing their synthesis, characterization, and real-world applications. Hands-on sessions, expert lectures, and case studies will enable attendees to understand how machine learning accelerates material optimization and predictive analysis. This FDP will foster research collaboration, enhance teaching methodologies, and empower faculty members to integrate modern computational tools into cutting-edge materials research and academic curricula.

Major Course Contents:

- Introduction to Advanced Functional Materials
- Fundamentals of Machine Learning
- Machine Learning in Thermodynamics and Phase Prediction
- Quantum Chemistry and Electronic Structure
- Surface and Interface Chemistry
- Electrochemistry and Energy Materials

Faculty conducting this programme:

The program will be conducted by the faculty members from NIT Warangal. Academicians in the field concerned from reputed institutes such as IITs/NITs/IITs have also been invited to deliver lectures in the program.

Registration Fee Particulars (including 18% GST):

Faculty	Rs.1180/-
Students / Research Scholars	Rs. 590/-
Industry Participants	Rs.2360/-

Participants need to pay the registration fees online using the following details

Online Transfer Details
Account Name: HEAD, CTL NITW
Account No: 40376545007
IFSC: SBIN0020149
Bank and Branch: SBI, NIT(REC) Warangal

How to apply:

Participants are required to fill the online registration form by clicking on the following link:

<https://forms.gle/tH5322HKtrEKLwLo6>

Selection Criteria:

Selection will be done based on first-come-first-serve to a maximum number of 50 (fifty). Additionally, 10 participants from industry are allowed to participate. The list of selected participants will be intimated through e-mail. In case the candidate is not selected, the registration amount will be refunded. Candidates will be issued certificates on successful completion of the course. Reservations are followed for selecting candidates as per GOI norms.

Important dates:

Last date for application	04/07/2026
Selection List by E- mail	05/07/2026

About NIT Warangal:

National Institute of Technology Warangal, formerly known as Regional Engineering College, was established in 1959. Over the years it has developed into a premier institute of higher learning and is ranked among the top technical education institutions in India. There are 14 Departments offering eight undergraduate and 31 post-graduate programs besides doctoral programmes. About 5000 students across the country and about 500 international students study on the campus. It is a fully residential campus sprawling over 250 acres with excellent infrastructure in the form of state of the art library, seminar halls, guest houses and research laboratories.



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SPONSORSHIP CERTIFICATE

1. Name :
2. Designation :
3. Institution :
4. Email :
5. Mobile No :
6. Payment Details
Reference No:
Amount:
Bank:
Date:
7. Address for Correspondence:
8. Educational Qualification:
9. Subjects taught so far:
10. No. of refresher courses/workshops attended:
11. Experience (in years):
12. Teaching: Research: Industry:

Dr. /Mr. /Ms..... is an employee of our Institute/Organization and is hereby sponsored to participate in the FDP on "**Emerging Trends in Machine Learning and Advanced Functional Materials**", sponsored by the Centre for Training and Learning (CTL) during **6th - 10th July, 2026** at **NIT Warangal**.

Signature of Head of Institution (with seal)

Address for correspondence

Post your application form to

Course Coordinators

Prof. Shanker Kumar, Prof. O. S. Tiwari & Prof. B. Satpathy
Department of Chemistry

NIT Warangal, Warangal 506004.

Mobile: 9609807499/9146848128/7384491358

Email: shanker@nitw.ac.in, otiwari@nitw.ac.in,

bsatpathy@nitw.ac.in

It is requested to all the delegates, after completion of application form, all the payment details, screenshot of the payment and scanned application form must be uploaded in the following online registration link.

Registration Link: <https://forms.gle/tH5322HKtrEKLwLo6>

For more details about CTL of NIT Warangal,

please visit: <https://nitw.ac.in/tlc>

For more enquiries, please contact:

Prof. Shanker Kumar, Prof. O. S. Tiwari & Prof. B. Satpathy

and

Prof. M Sailaja Kumari,

Professor and Head, CTL

Mobile: 0870-2462235

Email: ctl_hod@nitw.ac.in

Declaration

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinator in case I am unable to attend the course.

Date:

Place:

Signature of the Applicant

Coordinators:

Prof. Shanker Kumar

Department of MME

NIT Warangal

Warangal 506004

Mobile: 9609807499

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Prof. Bangmaya Satpathy

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