

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY



22/12/2025

to

26/12/2025

Next-Gen AI: Transformers and Reinforcement Learning Synergy



Organized by:

Robotics & Machine Analytics (RAMAN) Lab
Department of Electrical Engineering

Malaviya National Institute of Technology Jaipur 302017, Rajasthan, India
www.mnit.ac.in, www.ramanlab.co.in

About MNIT

Malaviya National Institute of Technology (MNIT) Jaipur is one of the NITs established by Ministry of Human Resource Development, Government of India. The Institute, earlier known as MREC, was established in 1963 as a joint venture of the state and central Governments. Later in 2002, the college was given the status of National Institute of Technology and on August 15, 2007, proclaimed Institute of National Importance through Act of Parliament. MNIT campus spreads over 325 acres of lush green area in the prime location of Jaipur city. At present, in addition to research, consultancy and developmental activities, the Institute offers UG and PG (M. Tech./M.Sc. & Ph.D.) level courses to about 5000 students in almost all leading fields of engineering, technology, management and sciences.

About Department of Electrical Engineering

The Electrical Engineering Department is one of the oldest departments at MNIT Jaipur. Currently, the department offers undergraduate courses in Electrical Engineering along with postgraduate courses in Power Systems, Power Electronics and Power System Management. The research domains of the department span over various areas of Electrical Engineering. The department continually provides collaborative opportunities with National/International Universities, resulting in a global exposure in research.

About RAMAN Lab

RAMAN Lab was established in September 2014 by Prof. Rajesh Kumar in the Department of Electrical Engineering at Malaviya National Institute of Technology (MNIT), Jaipur, India. The lab focuses on applying Computational Intelligent techniques in various interdisciplinary research areas, including Control of Robotics and Automation, Biomedical Imaging and Signal Processing, Bioinformatics, Healthcare, Energy Management, and Electric vehicles. For more detail:

Raman Lab Website

About Workshop

The “**Next-Gen AI: Transformers and Reinforcement Learning Synergy**” will provide participants with an in-depth understanding of transformer-based models and their applications in modern machine learning. The workshop will focus on the evolution of transformer architectures, advanced strategies for efficient training, and techniques for fine-tuning models across diverse domains. It will include interactive lectures, hands-on sessions, and case studies to help attendees gain both theoretical insights and practical experience. Designed for researchers, students, and industry professionals, the workshop will serve as a platform to explore state-of-the-art methods, address challenges in scalability and optimization, and discuss emerging applications of transformers in natural language processing, computer vision, and multimodal systems.

Coordinators

Dr. Surender Hans

M: +91-9911543993, surender.ee@mnit.ac.in

Prof. Rajesh Kumar

rkumar@uj.ac.za

Keynote Speakers

Prof. Rajesh Kumar

rkumar@uj.ac.za

Dr. Surender Hans

surender.ee@mnit.ac.in

General Information

Accommodation and travelling expenses are to be borne by the participants. Limited accommodation on actual charges may be available at MNIT Hostels. A request for hostel accommodation will need to be made in advance. The participant will not be paid any TA/DA. The hostel charges will approximately be Rs 200/day (tentatively). It is to note that limited seats are available in the course (25 seats).

Important Dates

Last date of registration	20 th Dec, 2025
Confirmation of selection	21 st Dec, 2025
Internship start date	22 nd Dec, 2025

Course Contents

LLM (Epic History of LLMs), Encoder-Decoder (Sequence to Sequence Architecture), Attention Mechanism, Introduction to Transformer, Self-Attention, Positional Encoding, Transformer Architecture, Transformer Decoder, Generative Adversarial Network, Auto encoder.

Case Studies, Projects and Industry practices.

Prerequisites

Understanding and working knowledge of Python

Basics of Machine Learning

Knowledge of Statistics, Probability, Linear algebra

Workshop Application Process

Applicants are advised to follow the given instructions while registering for the Winter Workshop Program.

Registration Fees

UG Students	Rs. 885/-
PG/Ph.D. Scholars	Rs. 1180/-
Faculty	Rs. 1475/-

Note: Including 18% GST in the registration fees.

Payment Mode

Demand Draft:

Demand draft (DD) payable at Jaipur, in name of:
Registrar (Sponsored Research) MNIT

NEFT/IMPS:

Name: Registrar (Sponsored Research) MNIT

Account No.: 676801700388

IFSC CODE: ICIC0006768 (ICICI BANK, MNIT)

Registration Form Details

After fee submission, the applicant must register themselves by submitting details on [Google Form Link](#)

Further details of the workshop and instructions for filling the form may be found on [Raman Lab Website](#).

The applicant may also mail the filled registration form (provided) along with all the required documents and appropriate payments to the address of correspondence mentioned in the announcement. It is important to ensure that all forms and materials are complete and correct before posting. All registration forms must be received by the organizers no later than 20th December, 2025 to be considered for participation. Kindly note that the registration fee submitted is strictly non-refundable under any circumstances.

Selection for the workshop will be determined on a 'first come first served' basis, so early submission is recommended. The official confirmation of the selection will be emailed by the mentioned date.

For further details about the course, contact ramanlabmnit@gmail.com

"Participants may register either by filling out the Google Form or by completing the Registration Form provided below."

Registration Form

Winter Workshop Program on
Next-Gen AI: Transformers and Reinforcement Learning
Synergy
Malaviya National Institute of Technology Jaipur
22th Dec, 2025 – 26th Dec, 2025

Name:

Category (UG/PG/Faculty):

Semester & Department:

Specialization (PG/Faculty):

Institute:

Mailing Address:

Phone (M):

(O)

Email:

Accommodation required?

(Please indicate one: Y/N)

Registration fee Details:

Mode of payment (DD or NEFT/IMPS):

Transaction No./ DD No.

Amount Paid:

The above information is accurate to the best of my knowledge at the time of completion of the form. If selected, I agree to abide by the rules and regulations of the program and MNIT Jaipur.

Date:

Candidate's Signature

The applicant is permitted to participate in the above program for the mentioned duration.

Date:

Signature of HoD with Seal

Scan for Registration Form

