

REGISTRATION

- **Maximum Seats:** 30 (Selection on the first come, first serve basis)
- **Registration Fee:** 250/- (Including GST)
- Online registration form link: <https://goto.now/6dgya>
- Please fill the above Google form with the requested details by 25th Feb 2025.
- The selected candidates will be informed by email on or before 28th Feb 2025.
- Certificates will be provided to the participants after the successful completion of the workshop.
- No TA/ DA will be provided to participants.
- **Bank details for registration:**

Bank Name : ICICI Bank Ltd.

Account Name : REGISTRAR (Sponsored Research) MNIT Jaipur

Branch Name : MREC Branch, Malaviya National Institute of Technology Jaipur- 302017

Account Number : 676801700388

MICR Code : 302229031

IFS Code : ICIC0006768

IMPORTANT DATES

Last date of registration: 25 February 2025

List of selected students: 28 February 2025

Workshop dates : 05 to 09 March 2025

TARGETED AUDIENCE

- The program is open to regular UG, PG, and Ph.D. students and faculty members from AICTE-approved Universities and Institutes.
- Maximum 30 participants will be enrolled for the workshop.

PATRON

Prof. N.P. Padhy, Director, MNIT Jaipur

Co- PATRON

Prof. Lava Bhargava, Dean R&C,
MNIT Jaipur

WORKSHOP CONVENER

Dr. Ritu Sharma,

PI & Associate Professor, Department of
ECE, MNIT Jaipur

Address for Correspondence

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ANRF SPONSORED

ONE WEEK HIGH-END WORKSHOP

(KARYASHALA)

On

**“Advanced Trends in Flexible
Sensors for Energy
Harvesting-2025”**

(Hybrid Mode)



05th to 09th March 2025



Organized by

Department of Electronics and
Communication Engineering
Malaviya National Institute of Technology
Jaipur-302017



ABOUT INSTITUTE

The Institute was jointly established in 1963 as Malaviya Regional Engineering College Jaipur by the Government of India and the Government of Rajasthan. Subsequently, on 26 June, 2002, the college was given the status of National Institute of Technology. On 15 August 2007, it was recognized as the Institute of National Importance through an Act of Parliament. The Institute is fully funded by the Ministry of Education (Shiksha Mantralaya), Government of India. The Institute lies in the heart of the pink city, imaginatively laid out with a picturesque landscape of 317 acres.

ABOUT DEPARTMENT

Bachelor's course in Electronics & Communication Engineering was first started in 1984, initially in the Electrical Engineering Department. In 1994, the Department of Electronics & Communication Engineering came into existence as a separate entity. Its undergraduate & four postgraduate programmes constitute approximately 20% students strength of the Institute, thus giving it the status of one of the largest Department of the Institute.

The first Master's degree programme was started in 1992. Currently, department offers an UG and four PG programme (VLSI Design, ECE, WOC and Embedded System.) The Department also offers PhD programme in relevant areas. The Department has received grants from government & semi-government agencies such as MHRD, AICTE, Ministry of information Technology, UKEIRI, DST, DRDO and ISRO. The Department has active collaborations with renowned Institutes & research institutes in India and abroad. The Department of ECE, at MNIT Jaipur has a blend of young as well as experienced, dynamic faculty members and is committed in providing quality education and research in the latest field.

ABOUT ANRF

Anusandhan National Research Foundation (ANRF) - established through an Act of Parliament: ANRF Act, 2023, to provide high-level strategic directions for research, innovation, and entrepreneurship in the fields of natural sciences, including mathematical sciences, engineering and technology, environmental and earth sciences, health and agriculture, and scientific and technological interfaces of humanities and social sciences. Anusandhan National Research Foundation (ANRF) has been established to promote research and development and foster a culture of research and innovation throughout India's Universities, Colleges, Research Institutions, and R&D laboratories. ANRF acts as an apex body to provide high-level strategic direction of scientific research in the country as per recommendations of the National Education Policy. ANRF forges collaborations among the industry, academia, research institutions and government departments. *"ANRF strategies should align with the goals of Viksit Bharat 2047 and implementation should follow global best practices adopted by research and development agencies across the world"* – ANRF Governing Body

SCOPE OF THE WORKSHOP

The workshop aims to disseminate the knowledge and the project findings attained during the project among UG, PG, and Ph.D. students. This workshop provides the exploration of new materials (polymers, composites, nanomaterials, etc.) with enhanced piezoelectric, triboelectric, pyroelectric, or other energy harvesting properties suitable for flexible sensor applications. Focus will be on innovative fabrication methods such as printing, coating, self-assembly, and micro/nano-fabrication for creating flexible sensor devices with tailored properties and geometries. This includes scalable and cost-effective manufacturing processes. Use of computational methods to simulate and optimize the performance of flexible sensor devices and energy harvesting systems.

COURSE CONTENTS

Objectives of the Workshop:

- To provide an overview of different techniques of energy harvesting
- To attain knowledge about various applications of MEMS sensors and actuators
- To facilitate hands-on sessions and interactive discussions on sensors designing using COMSOL Multiphysics Software.
- To understand the various fabrication techniques involved for MEMS sensors manufacturing.
- To study different deposition and characterization techniques of thin films.

Course Contents:

- Present and future of energy harvesting devices.
- Use of different materials for the development of flexible sensors
- Synthesis and characterization of polymer-based flexible sensors.
- Overview of MEMS fabrication Technology.
- Basics of different types of actuators and sensors.
- Deposition and characterization techniques thin films.
- Simulation of MEMS-based sensors using COMSOL Multiphysics Software

RESOURCE PERSONS

Subject experts from prestigious academic institutions (like IITs, NITs, etc.), R&D organizations, and industries will deliver the workshop content. The Research Associate, JRF, and coordinator will mentor the hands-on sessions.