



MANAKULA VINAYAGAR INSTITUTE OF TECHNOLOGY

An Autonomous Institution

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Kalitheerthalkuppam, Puducherry- 605 107.



DEPARTMENT OF MECHANICAL ENGINEERING

NEWSLETTER 2025-26 (EVEN SEM)

MITILENCE



The Department of Mechanical Engineering organized **MITILENCE – A National Level Technical Symposium** on 14th March 2026. The symposium served as a dynamic platform for students to demonstrate their technical expertise and creativity through a variety of events focused on the field of Mechanical Engineering. It comprised an array of technical and non-technical competitions that witnessed enthusiastic participation from students of various institutions. The event aimed to promote innovation, enhance technical skills and cultivate an entrepreneurial mindset among aspiring engineers, enabling them to address emerging challenges in engineering and research. Outstanding performers were recognized with cash prizes and merit certificates for their achievements. The participants were warmly welcomed by Dr. B. Radjaram, IP Chairman of IE(I), Member of ISHRAE, NIQR and Head of the Department of Mechanical

Engineering, and the symposium was coordinated by Mr. S. Ganeshkumar, Assistant Professor, Department of Mechanical Engineering.

GUEST LECTURES

A guest lecture on “**HVAC Entrepreneurship: From Technical Expertise to Business Success**” was organized by the Department of Mechanical Engineering in association with the ISHRAE MIT Students Chapter on 10th February 2026 at AV Room.



Dr. B. Radjaram, IP Chairman of IE (I), Member of ISHRAE, NIQR and Head of the Department of Mechanical Engineering, delivered the welcome address, highlighting the importance of entrepreneurship in the HVAC sector and encouraging students to explore innovative business opportunities.

The session was delivered by the Chief Guest, Mr. Krishnan, Managing Director, Arostar Enterprises Pvt. Ltd., Thirumudivakkam,

Chennai, who shared valuable insights on transforming technical expertise into successful entrepreneurial ventures in the HVAC industry. He also discussed industry trends, business challenges, and the essential skills required to establish and sustain a successful HVAC enterprise.



A guest lecture on **“New Product Development in the AI Era”** was organized by the Department of Mechanical Engineering, in association with Energy Club, on 25th February 2026. The programme commenced with a welcome address by Dr. B. Radjaram, IP Chairman of IE(I), Member of ISHRAE, NIQR and Head of the Department of Mechanical Engineering, who emphasized the significance of integrating Artificial Intelligence into product design and development to equip students with future-ready engineering skills. The session was delivered by the Resource Person, Dr. G. Muthukumar, M.E., Ph.D., Project Director, Imeconsys (P) Ltd., Puducherry, who shared valuable insights into the transformative role of Artificial Intelligence in accelerating innovation, optimizing product design, reducing development cycles, and enhancing decision-making in modern engineering.



A guest lecture on **“Industrial Welding Practices and NDT Certification Awareness”** was organized by the Puducherry MIT Students Chapter (Mechanical) in association with The Institution of Engineers (India) on 27th February 2026. The session was delivered by Mr. Abul Kalaam Yusuf Adams, Certified Welding Inspector and Training Head, Shri Sai NDT Services Pvt. Ltd., Puducherry, who created awareness on welding quality practices, defect analysis, and NDT certification requirements for students.



In celebration of World Engineering Day 2026, the Puducherry MIT Students Chapter (Mechanical), in association with The Institution of Engineers (India), organized a guest lecture on **“Smart Engineering for a Sustainable Future through Innovation and Digitalization”** on 11th March 2026. The session was delivered by Mr. K. Palani,

Senior Manager - Environment, Health & Safety, Ashok Leyland, Chennai, who spoke on emerging innovations and digitalization trends shaping sustainable engineering practices.



A guest lecture on “**Applied Psychology for Engineers**” was organized by the Puducherry MIT Students Chapter (Mechanical) in association with the National Institution for Quality & Reliability (NIQR) on 28th March 2026. The session was delivered by Dr. Barani Kanth D, Professor, Department of Applied Psychology, School of Physical, Chemical & Applied Sciences, Pondicherry University, who addressed the importance of psychological well-being and applied psychology principles for engineering professionals.

WORKSHOP



A Workshop on “**Industry 4.0 and Smart Manufacturing**” was organized by the Department of Mechanical Engineering on 12th February 2026 for Mechanical Engineering students. The session was

conducted by Mr. B. Maharashi, Regional Manager, NAMTECH Institute, IIT Gandhinagar, Gujarat. The workshop provided valuable insights into the principles of Industry 4.0, including smart manufacturing, Industrial Internet of Things (IIoT), automation, digital twins, data analytics, and intelligent production systems. The resource person highlighted how these technologies are transforming modern manufacturing by improving productivity, quality, flexibility, and sustainability. The interactive session enabled students to understand the industry's evolving skill requirements and emphasized the importance of digital competencies for careers in advanced manufacturing and smart factories.



A Workshop on “**Core & Cavity Design for Plastic Molding**” was organized by the Department of Mechanical Engineering on 20th February 2026 for Mechanical Engineering students. The session was conducted by Mr. J. Jagan, Chairman, Vector Solution, Puducherry. The workshop provided in-depth knowledge of core and cavity design principles, mold design methodologies, material selection, and design considerations for plastic injection molding. The resource person shared practical insights into industrial practices, CAD-based mold design, manufacturing challenges, and quality optimization in the plastics industry. The hands-on and interactive session enhanced students' understanding of product design, tooling, and mold manufacturing, preparing

them for careers in the automotive, consumer products, and plastics manufacturing sectors.



A Workshop on “**Industrial Welding Practices and NDT Certification Awareness**” was organized by the Department of Mechanical Engineering on 27th February 2026 for Mechanical Engineering students. The session was conducted by Mr. Abul Kalaam Yusuf Adams, Certified Welding Inspector and Training Head, Sri Sai NDT Service Pvt. Ltd., Puducherry. The workshop provided comprehensive insights into industrial welding techniques, welding quality standards, defect identification, and the significance of Non-Destructive Testing (NDT) methods in ensuring the safety and reliability of engineering components. The resource person also highlighted the scope of internationally recognized NDT certifications, career opportunities in quality inspection, and industry expectations for certified professionals. The interactive session equipped students with practical knowledge of welding inspection, quality assurance, and the importance of certification in enhancing employability in manufacturing, oil & gas, power, and infrastructure sectors.

INDUSTRIAL VISIT



The students of the Department of Mechanical Engineering participated in an industrial visit to **Pandiyans Industries / SNR Laser Designs, Coimbatore**, Tamil Nadu, on 3rd April 2026. The visit was organized to familiarize students with contemporary sheet-metal fabrication and precision manufacturing processes, including CNC laser cutting, press-brake operations, CNC bending, and other advanced production techniques.

During the visit, the students observed industrial manufacturing practices, quality assurance procedures, workplace safety protocols, and efficient production management systems. The interaction with industry experts provided valuable practical exposure, enabling students to relate theoretical concepts to real-time engineering applications and enhancing their technical competence and industry preparedness.



The students of the Department of Mechanical Engineering participated in an

industrial visit to the Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam, on 10th April 2026. The visit provided valuable exposure to India's advanced nuclear research and reactor technologies, with a focus on Fast Breeder Reactor (FBR) technology, thorium-based nuclear energy, and key reactor facilities, including the Fast Breeder Test Reactor (FBTR), KAMINI, and the Prototype Fast Breeder Reactor (PFBR).

During the visit, students gained practical insights into reactor engineering, nuclear materials science, and the role of advanced nuclear technologies in sustainable energy production. The interaction with scientists and technical experts enhanced their understanding of nuclear research, scientific innovation, and the significance of indigenous reactor development in ensuring India's energy security and technological advancement.

PROFESSIONAL ETHICS PROGRAM



A Poster Presentation on “Professional Ethics” was organized by the Department of Mechanical Engineering for the final-year Mechanical Engineering students on 23rd March 2026 to create awareness about the importance of ethical values and professional responsibility in engineering practice. The event provided students with an opportunity to creatively present key concepts related to

engineering ethics, integrity, workplace conduct, sustainability, and social responsibility through informative posters. The activity encouraged critical thinking, effective communication, and a deeper understanding of ethical decision-making in professional environments. It also reinforced the significance of adhering to ethical standards for building a responsible and trustworthy engineering profession.

MOU



The Department of Mechanical Engineering signed a Memorandum of Understanding (MoU) with Arostar Enterprises Pvt. Ltd., Thirumudivakkam, Chennai, on 10th February 2026, with the objective of strengthening industry-institute collaboration in the domains of heating, ventilation, and air-conditioning (HVAC) technologies. The MoU aims to create avenues for student training, skill development, and technical exposure to industry-relevant practices.

STUDENTS ACTIVITIES



Mr. Prabakar R., III Year Mechanical Engineering, won First Prize in the CAD Design Competition at Madras Institute of Technology (MIT), Chennai, First Prize in the CAD Mania and Mech Clash (Technical Quiz) competitions at B.S. Abdur Rahman Crescent Institute of Science and Technology, Vandalur, Chennai, and Second Prize in the CAD Clash event at MechatronSkyfest 2K26 organized by SMVEC.

ALUMNI ACTIVITIES



Session on **"Leveraging Alumni Networks for Career Growth and Opportunities"** was conducted by Mr. M. Bhaveen, Design Engineer, Avalon Technologies Limited, Tambaram, MEPZ-SEZ, Chennai, an alumnus of the 2019–2023 batch, on 27th January 2026



A session on **"Success Principles for a Successful Future in the Core Industry"** was delivered by Mr. S. Surender on 8th January 2026



A session on **"Emerging Trends in Mechanical Engineering: Insights from Our Alumni"** was conducted for the III Year Mechanical Engineering students by Mr. S. Koushidaran (2025 Batch alumnus), Design Engineer – Embedded Systems, Qmax System, Chennai on 17th February 2026



A session on **"Career Opportunities in HVAC – Alumni View"** was conducted for the III Year Mechanical Engineering students by Mr. S. Viknesh, (2020 Batch alumnus) Associate Medical Coder, Optum Health and Technology on 19th February 2026

ENTREPRENEURSHIP DEVELOPMENT PROGRAMMES



A session on **“HVAC Entrepreneurship: From Technical Expertise to Business Success”** was conducted for all Mechanical Engineering students by Mr. R. Krishnasamy, Founder and Managing Director, AROSTAR Enterprises Private Limited, Chennai, on 10th February 2026

INTELLECTUAL PROPERTY RIGHTS PROGRAMMES



An awareness session on **“How to File IPR”** was conducted on 07th April 2026 by Dr. Jayakumar for III Year Mechanical Engineering students. The session aimed to provide students with a basic understanding of Intellectual Property Rights (IPR), highlight the importance of protecting innovative ideas, designs, and inventions, and explain the process of filing IPR applications.

SEMINARS/WORKSHOPS/FDP ATTENDED BY FACULTY

Dr. A. Mathiarasu, Dr. P. Natarajan, Mr. K. Selvam, Mr. B. Vasanth, Mr. A. Thiagarajan,

Mr. S. Ganeshkumar, and Mrs. G. Deeba participated in a 5-day Faculty Development Programme (FDP) on "Advancements in AI-ML-IoT Integration for Smart Mechanical Engineering Systems", organized by Lakireddy Bali Reddy College of Engineering, Mylavaram, NTR District, Andhra Pradesh, from 23rd to 27th February 2026

Mr. A. Thiagarajan, Mr. B. Vasanth, and Mr. S. Ganeshkumar participated in the 10-day Faculty Development Programme (FDP) on "NEP Orientation & Sensitization Programme", organized by Pondicherry University, from 18 to 27th May 2026

JOURNAL PUBLICATIONS

Dr. P. Natarajan published a research paper titled "An Electroless Ni-P Nanocomposite Coating: A Comprehensive Review" to Chemistry Select (Wiley) in 2025 (Impact Factor: 2.3)

CONFERENCE ATTENDED

Dr. P. Natarajan, Mr. A. Thiagarajan, and Mr. B. Vasanth presented research papers at various national and international conferences during the Even Semester (2025–26).

Dr. P. Natarajan presented the paper titled "An Experimental Investigation on Nano TiO₂ with Poly Lactic Acid for Biomedical Applications" at the 6th International Conference on Advances in Mechanical Engineering (ICAME-2026), organized by the Department of Mechanical Engineering, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, in association with the University of Split, Croatia, held from 18–20 March 2026.

Mr. A. Thiagarajan presented the paper "Integrating Deep Reinforcement Learning with Predictive Maintenance Algorithms for Optimized Mechanical System Performance" at the International Conference on

Advancements in Sustainable Energy, Materials, and Manufacturing Technology (ICASMMT 2024), Hyderabad, held on 13–14 September 2024 (Proceedings published on 30 September 2025, ISBN: 978-0-7354-5263-3).

Mr. B. Vasanth presented the paper "Experimental Study on the Mechanical Properties of Natural Hybrid Composite" at the 2nd International Conference on Modern Trends in Engineering, Science, Management, and Technology (MESMT-2026), held on 21–22nd March 2026 (ISBN: 978-93-5782-235-0).

EXTERNAL INTERACTIONS

1. **Dr. B. Radjaram**, IP Chairman of IE(I), Member of ISHRAE and NIQR, and Head of the Department of Mechanical Engineering

- ❖ Served as the Guest of Honour for the Valedictory Session of the One-Day National Workshop on "Nuclear–Hydrogen Synergy: Pathways for India's Clean Energy Transition", organized by the Department of Green Energy Technology, Pondicherry University, in association with IGCAR, Kalpakkam, on 30 January 2026.
- ❖ Served as the Program Committee Advisor for the National Level Competitive Exhibition on Sustainable Technologies (NCEST 2026), organized by the Department of Green Energy Technology, Pondicherry University, on 16th April 2026.

3. **Mr. A. Thiagarajan**, Assistant Professor / Department of Mechanical Engineering

- ❖ Delivered an awareness talk on "Environmental Safety" at Jyothi Vallalar Higher Secondary School on 28th February 2026.

- ❖ Served as the Chief Guest for the ISHRAE One-Day National Training Programme – ACRESERVE 2026 for AC Technicians, organized in Karaikal in association with the ISHRAE Puducherry Sub Chapter, on 07th February 2026.
- ❖ Represented the ISHRAE Puducherry Sub Chapter at ACREX India 2026 – South Asia's HVAC Exhibition, held at BEC, Mumbai, on 10–11th March 2026.
- ❖ Delivered a special address as the Chief Guest during the ISHRAE Puducherry Sub Chapter Installation Ceremony, held at Hotel Sand Dunes, on 29th March 2026.