

Vision and Mission of the Institute

Vision: International standing of the highest calibre.

Mission: To develop high quality technical education and personnel with a sound footing on basic engineering principles, technical and managerial skills, innovative research capabilities, and exemplary professional conduct to lead and to use technology for the progress of mankind, adapting themselves to changing technological environment with the highest ethical values as the inner strength.

Vision and Mission of the Department

Vision: To impart nationally and internationally recognised education in the fields of Mechanical Engineering, leading to well-qualified engineers who are innovative contributors to the profession and successful in advanced studies and research.

Mission: To offer high quality graduate and post graduate programmes in the fields of Mechanical Engineering and to prepare students for professional career and higher studies promoting excellence in teaching, research, entrepreneurship, collaborative activities with ethical values, making positive contributions to the society.

About of the Department

The Department of Mechanical Engineering (MED) is the largest department in NIT Calicut, which started in 1961. The department offers regular undergraduate, postgraduate and doctoral degree programmes. Besides teaching, the faculty members are involved in outreach activities, sponsored research and consultancy works. It regularly conducts GIAN courses, Faculty Development Programmes, Short Term Training Programmes, and Technical Workshops under continuing education programmes for industry and academic personnel. Over and above, the faculty of the department delivers expert lectures and keynote addresses for many technical and management institutions.

B. Tech. Programmes in Mechanical Engineering (Started in 1961) and Production Engineering (1984)

M. Tech. Programmes in Industrial Engineering and Management (1984), Thermal Sciences (1989), Manufacturing Technology (1989), Energy Engineering and Management (2000), Materials Science and Technology (2000), Machine Design (2014)

Ph. D. Programme: Full time and Part-time

Faculty strength	65
Staff strength	35
Students	1237
Sponsored Projects (Since 2013)	29



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Department of Mechanical Engineering
National Institute of Technology Calicut



<https://nitc.ac.in/department/mechanical-engineering>

Department of Mechanical Engineering

(DST-FIST Sponsored Department)



National Institute of Technology Calicut

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Laboratory Facilities

UG Laboratories

1. Central Workshop
2. Fluid Mechanics Laboratory
3. Fluid Machinery Laboratory
4. Heat Engines Laboratory
5. CAD/CAM center
6. Metrology Laboratory
7. Production Engineering Laboratory
8. Heat Transfer Laboratory

PG Laboratories

1. Industrial Engineering Laboratory
2. Modelling and Data Analytics Laboratory
3. Computational Laboratory
4. Thermal Science Laboratory
5. Manufacturing Technology Laboratory
6. CAD/CAM/CAE Laboratory
7. Energy Engineering Laboratory
8. Material Science Laboratory
9. Design Engineering Laboratory

Research Laboratories

1. Mechatronics/Robotics Laboratory
2. Supply Chain and System Simulation Laboratory
3. Sophisticated Instruments Centre
4. Advanced Manufacturing Centre
5. Centre for Advanced Studies in Cryogenics
6. Alternative Energy Laboratory
7. Solar Energy Centre
8. Materials Testing Laboratory
9. Tribology and Vibration Laboratory
10. Fuel Cell Laboratory
11. Green Energy Laboratory
12. Design Innovation Centre
13. Centre for Precision Measurements and nano-mechanical Testing

Professional Activities

Mechanical Engineering Association

The Mechanical Engineering Association is an active forum in the department involving the students, staff and faculty members. The association takes active part in organizing events and programmes in the diverse areas of mechanical engineering at the Department and at the Institute level.

Indian Society for Technical Education

The ISTE cell of NITC conducts a wide range of activities, which tests individuals both theoretically and practically. SPECTRUM is the main event organized for first-year students, in which students from all branches compete for the ultimate SPECTRUM Trophy, going through a rigorous set of technical challenges. The club also conducts industrial visits, workshops, and talks, which enthral science enthusiasts in the institute.

Indian Institution of Industrial Engineering (IIIE) Kozhikode Chapter

IIIE Kozhikode Chapter has been functioning at NIT Calicut since 2016. The Indian Institution of Industrial Engineering, founded in 1957, with the National Headquarters at Navi Mumbai, is a non-profit organization for the Industrial Engineering profession. Through its affiliation with NIT Calicut, the IIIE Kozhikode Chapter stands as a hub of knowledge, expertise, and collaboration, serving as a vital catalyst for the growth and prosperity in the field of Industrial Engineering in the region.

The chapter conducts research lecture series, expert talks, webinars, and workshops, to attract students towards the domain of Industrial Engineering.

Robotics Interest Group

Robotics Interest Group (RIG), comprising students from different branches of engineering, focuses on building mechatronic systems, and on research and development in robotics and automation. RIG conducts robotics workshops, exhibitions and talks within the institute and outside.

SAE India Collegiate Club

The SAE India Collegiate club of NIT Calicut, established in 2006, is an affiliate society of SAE International, registered in India as an Indian non-profit engineering and scientific society, dedicated to the advancement of the mobility industry in India. The inquisitive nature and skill in the club members have led them to create some of the spellbinding automobiles, which have been showcased for BAJA and other major auto competitions.

Aero-unwired

Aero-unwired concentrates on aeromodelling and rocket modelling and takes up many challenging projects related to the fabrication of UAVs, drones, rockets hovercrafts, amphibious planes, etc. The club conducts aeromodelling workshops for the students of NITC, and actively participates in numerous national level competitions.

Major Externally Funded Projects (Last Three Years)

- DST-FIST (4 projects, Amount: Rs. 2,51,00,000)
- DST, SERB (7 Projects, Amount: Rs. 1,92,25,584)
- DST-IITG-TIH (1 Project, Amount: Rs. 1,22,17,000)
- Kerala State Council for Science Technology and Environment (3 Projects, Amount: Rs. 9,50,000)
- Directorate of Environment and Climate Change, Govt. of Kerala (1 Project, Amount: Rs. 13,75,000)
- MOE-ICSSR (1 Project, Amount: Rs. 7,35,000)
- DST, MeitY (1 project, Amount: Rs. 45,26,000)
- ARDB-DRDO (1 Project, Amount: Rs. 17,14,000)
- ISRO (1 Project, Amount: Rs. 7,92,000)

Placement Data

Placement Percentage

Graduating Year	B. Tech. Mechanical Engineering	B. Tech. Production Engineering	M. Tech. Programmes
2020	74.40	77.78	33.80
2021	79.40	80.95	31.80
2022	97.90	97.20	81.70
2023	84.86	56.10	73.27

Latest Initiatives in Teaching and Learning

Co-teaching Initiatives

Experts from industry, with their hands on experience in latest technologies, educate students, prioritizing the latest advances, practical applications, and real-world case studies from the industry.

PoP, Visiting & Adjunct Faculty

Collaboration with industry experts, research institutions, and universities to promote excellence in teaching and research, and to encourage collaborations among faculty, students, and researchers.