

Expertise in the Department

Fluids & Thermal Engineering

- ▶ Battery Thermal Management
- ▶ Combustion
- ▶ Computational Fluid Dynamics (CFD)
- ▶ Drones
- ▶ Experimental and Computational Fluid Dynamics
- ▶ Fluid Mechanics
- ▶ Hydrodynamics
- ▶ Hydrogen Storage
- ▶ Liquid Atomization
- ▶ Mathematical Modelling of Fluid Flow
- ▶ Porous Medium Combustion
- ▶ Sorption Heating and Cooling Systems
- ▶ Spray & Combustion Model
- ▶ Spray and Droplet Dynamics
- ▶ Thermal Energy Storage
- ▶ Wind Turbine Aerodynamics

Manufacturing

- ▶ Active Control of Chatter
- ▶ Additive Manufacturing
- ▶ Advanced Materials and Manufacturing
- ▶ Advanced Metal Casting
- ▶ Metrology
- ▶ Machining and Optimization Techniques
- ▶ Metal Forming
- ▶ Metal Matrix Composite Materials
- ▶ Micro-Nano Machining Processes
- ▶ Modelling of Machining
- ▶ Smart Manufacturing
- ▶ Tribology and Surface Engineering
- ▶ Ultra-Precision Machining
- ▶ Welding

Solid Mechanics & Robotics

- ▶ Active Safety in Automobiles
- ▶ Advanced Fiber Reinforced Composite Materials
- ▶ Alternate Forms of Mobility
- ▶ Automotive NVH
- ▶ Autonomous Vehicles
- ▶ Auxetic Materials
- ▶ Biomechanics
- ▶ Continuum Mechanics
- ▶ Controls
- ▶ Digital Transformation
- ▶ EVehicle Dynamics
- ▶ Field and Service Robotics
- ▶ Finite Element Method (FEM)
- ▶ Machine Learning
- ▶ Mechanics of Composite Materials
- ▶ Mechatronics
- ▶ New Technologies in Mechanical Engineering
- ▶ Non-Destructive Testing
- ▶ Nonlinear Dynamics
- ▶ Robotics
- ▶ Theoretical and Computational Solid Mechanics

Faculty

Fluids & Thermal Engineering



DR. ANIL KUMAR EMADABATHUNI
Professor

DR. MUTHUKUMAR PALANISAMY
Professor

DR. MADAN MOHAN AVULAPATI
Associate Professor

DR. N. GNANASEKARAN
Associate Professor

DR. BALAJI SUBRAMANIAN
Associate Professor



DR. GIRISH KUMAR RAJAN
Associate Professor



DR. S. KRISHNA ADDEPALLI
Assistant Professor



DR. VIGNESH T. G.
Assistant Professor



DR. MOHD. FURQUAN
Assistant Professor

Manufacturing



DR. MAMILLA RAVISANKAR
Professor and HOD

DR. N. VENKAIAH
Professor

DR. DEGALA VENKATA KIRAN
Associate Professor

DR. AJAY KUMAR
Associate Professor

DR. GOVIND NARAYAN SAHU
Assistant Professor

Solid Mechanics & Robotics



DR. SUBBAREDDY DAGUMATI
Associate Professor

DR. SRIRAM SUNDAR
Associate Professor

DR. P. VENKATARAMAN
Associate Professor

DR. ANUP BASAK
Assistant Professor

DR. YUJENDRA MITIKIRI
Assistant Professor



DR. THIYAGARAJAN RANGANATHAN
Assistant Professor



DR. ABIR DUTTA
Assistant Professor



PROF. N. N. KISHORE
Adjunct Professor



PROF. V. R. GANESAN
Professor of Practice

Staff



DR. BABU RAJ M
Technical Officer



MR. B. RAMESH KUMAR
Technical Superintendent



MR. PRODDUTURU DASTHAGIRI
Technical Superintendent



MR. S. VENKATA NARAYANA
Technical Superintendent



MR. SAI CHAITANYA PILLAI
Technical Superintendent



MR. MIDATHANA RAMESH
Senior Technician



MR. K. V. VENKATASAYASI
Junior Technician



MR. VEMURU SREE VARUN TEJ
Junior Assistant



DEPARTMENT OF MECHANICAL ENGINEERING INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI



About the department

The Department of Mechanical Engineering has been functioning since the inception of the Institute. The department offers a comprehensive range of academic programs, including B.Tech., Dual Degree, M.Tech., MS, and Ph.D. The faculty members are engaged in pioneering research and development in key domains such as **Advanced Manufacturing, Solid Mechanics and Design, Fluids and Thermal Engineering, and Robotics and Mechatronics**. The department is committed to fostering skill enhancement and knowledge sharing through specialized training programs for faculty, technical staff, students, and industry professionals. With a strong focus on real-world impact, we collaborate extensively with industries, research organizations, and academic institutions to address contemporary challenges and drive innovation. The state-of-the-art facilities and vibrant research ecosystem—where ideas transform into solutions are our major strengths.

Programmes offered

B.Tech Mechanical Engineering
B.Tech (minors)

- Additive Manufacturing
- Autonomous Vehicles and Robots

Dual degree - Mechanical Engineering
(B.Tech || M.Tech)

M. Tech

- Design and Manufacturing
- Thermal Engineering and Energy Systems

MS (by Research) in Mechanical Engineering
Ph.D in Mechanical Engineering

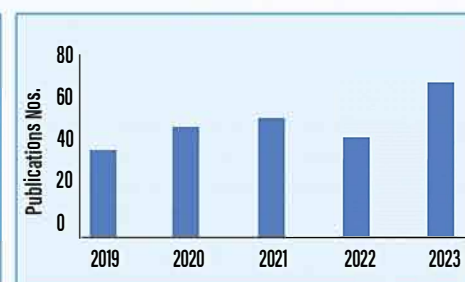
Present Student Information

B.Tech : 191 | M.Tech : 65
MS : 17 | Ph.D : 80

Status of Project Funding



Status of Journal Publications



- Sponsored Projects : ₹42.72 Crores
- Consultancy Projects : ₹04.11 Crores
- Ongoing Projects : ₹25.07 Crores
- Completed Projects : ₹17.64 Crores

SPONSORED AND CONSULTANCY PROJECTS



Contact Details

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Department Facilities

Manufacturing



Department Facilities

Fluids & Thermal Engineering



Solid Mechanics & Robotics



Simulation Software



Institute Level Facilities

Centre of Excellence in Smart Manufacturing and EV Technologies

NX CAD, CAM & CAE, NX Additive Manufacturing, NX Fibersim
 Tecnomatix - Process and Plant Simulation
 Teamcenter
 Simcenter 3D & Amesim, Simcenter SCADAS
 Mind Sphere, Mendix - Pro & Cloud Resource
 Opcenter APS and Execution Bundle, STAR CCM +
 ADAS Simulation Software, ADAS Testing Hardware
 ADAS Sensors & Camera
 TIA Portal, S7-1500 PLC with HMI

