

A MECHANICAL ENGINEER IS ABLE TO DO EVERYTHING

B .E., MECHANICAL ENGINEERING

VISION AND MISSION OF THE INSTITUTE

VISION

To be an internationally recognized seat of higher learning in Engineering, Technology and Science in future.

It also visualizes being a research incubator for academicians, industrialists and researchers from across the country /world.

MISSION

- It strives to provide quality Technical education at affordable cost.
- Providing state-of-the art infrastructure facilities to achieve excellence in Teaching-Learning, Research and Development.
- Aligning with leading industries to create competent engineers through internships and placement focused training.
- Create an environment which is conducive to learn skills which will solve pressing issues along with foundation in moral values and ethics.

VISION AND MISSION OF THE DEPARTMENT

VISION

To be acknowledged as a centre for education par excellence in the domain of Mechanical Engineering, moulding engineers who are knowledgeable, innovative and socially responsible, who will contribute to the expansion of the frontiers of human development.

MISSION

- To impart high quality education to the students so that they can enhance their knowledge and awareness of the technologies in the field of Mechanical Engineering.
- To encourage the students to undertake projects that would improve their understanding and hone their innovative skills.
- To impress upon the budding engineers the need for ethical guidelines and professionalism so that they can be responsible entrepreneurs and leaders in tomorrow's challenging world.

Program Educational Objectives (PEOs)

PEO-I

To provide students with a sound foundation in the mathematical, scientific and engineering fundamentals necessary to formulate, solve and analyze engineering problems.

PEO-II

To prepare students for successful careers in industry that meet the needs of local, Indian and multinational companies.

PEO-III

To develop the ability among students to synthesize data and technical concepts for application to product design and prepares students to work as part of teams on multidisciplinary projects.

PEO-IV

To promote student awareness for life-long learning and to introduce them to codes of professional practice, ethics and prepare them for higher studies.

Knowledge and Attitude Profile

WK1 A systematic, theory-based understanding of the natural sciences applicable to the discipline and awareness of relevant social sciences.	WK2 Conceptually-based mathematics, numerical analysis, data analysis, statistics and formal aspects of computer and information science to support detailed analysis and modelling applicable to the discipline.	WK3 A systematic, theory-based formulation of engineering fundamentals required in the engineering discipline.
WK4 Engineering specialist knowledge that provides theoretical frameworks and bodies of knowledge for the accepted practice areas in the engineering discipline; much is at the forefront of the discipline.	WK5 Knowledge, including efficient resource use, environmental impacts, whole-life cost, reuse of resources, net zero carbon, and similar concepts, that supports engineering design and operations in a practice area.	WK6 Knowledge of engineering practice (technology) in the practice areas in the engineering discipline.
WK7 Knowledge of the role of engineering in society and identified issues in engineering practice in the discipline, such as the professional responsibility of an engineer to public safety and sustainable development.	WK8 Engagement with selected knowledge in the current research literature of the discipline, awareness of the power of critical thinking and creative approaches to evaluate emerging issues.	WK9 Ethics, inclusive behavior and conduct. Knowledge of professional ethics, responsibilities, and norms of engineering practice. Awareness of the need for diversity by reason of ethnicity, gender, age, physical ability etc. with mutual understanding and respect, and of inclusive attitudes.

Program Outcomes (POs)

PO-1 Engineering Knowledge Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.	PO-6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice. (WK1, WK5, and WK7).
PO-2 Problem Analysis Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)	PO-7 Ethics Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)
PO-3 Design/Development of Solutions Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)	PO-8 Individual and Collaborative Team work Function effectively as an individual, and as a member or leader in diverse/multi- disciplinary teams.
PO-4 Complex Problems Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).	PO-9 Communication Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences
PO- 5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.	PO-10 Project Management & Finance Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multi disciplinary environments.

PO-11 Life-long learning:

Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PO-12 Environment and sustainability:

Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development

PROGRAM SPECIFIC OUTCOMES (PSOs)

On successful completion of the Mechanical Engineering Degree programme, the Graduates shall exhibit the following:

PSO-I

Apply the knowledge gained in Mechanical Engineering for design and development and manufacture of engineering systems.

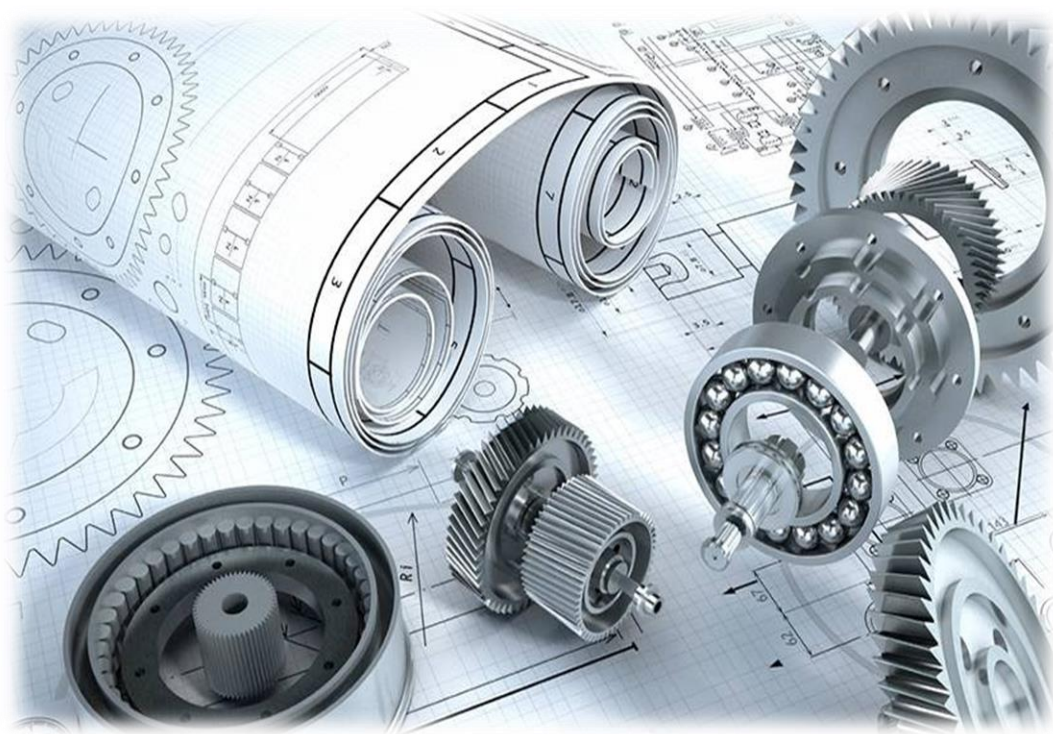
PSO-II

Apply the knowledge acquired to investigate research-oriented problems in mechanical engineering with due consideration for environmental and social impacts.

PSO-III

Use the engineering analysis and data management tools for effective management of multidisciplinary projects.





ABOUT Mechanical Engineering

The field of mechanical engineering is incredibly diverse and encompasses a wide range of topics related to the design, analysis, manufacturing, and maintenance of mechanical systems. Mechanical engineers apply principles of physics and materials science to develop everything from tiny micro devices to massive machinery.

Why study here Mechanical @ PERI IT

- ❖ Well trained experts in areas of advanced manufacturing, thermal engineering, Design and robotics.
- ❖ Well-equipped laboratory facilities and conducive environment for students.
- ❖ International exposure for students via mobility program and student exchange.
- ❖ Industry supported laboratories.

EXPERTISE AND FOCUS:

Mechanical Engineering is a dynamic field that encompasses the design, analysis, and manufacturing of mechanical systems, ranging from micro-scale devices to massive industrial machinery. The core expertise and focus areas within the realm of mechanical engineering are:

Relevant High Demands of Research Focus:

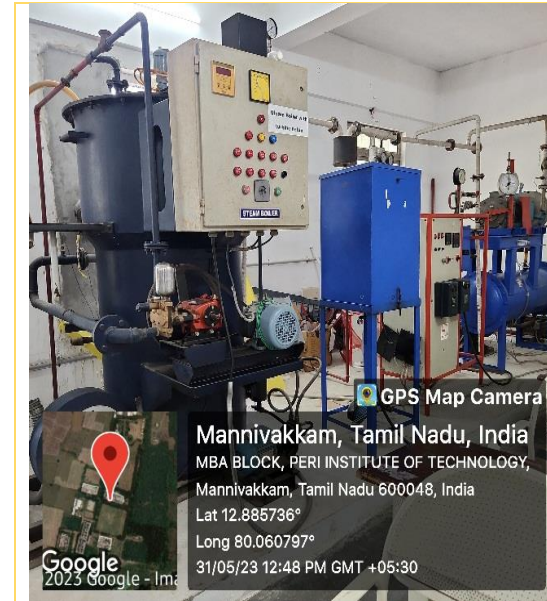
❖ Design and Analysis	❖ Robotics and Automation
❖ Materials and Manufacturing	❖ Automotive Engineering
❖ Thermodynamics and Heat Transfer	❖ Aerospace Engineering
❖ Dynamics and Control Systems	❖ Biomechanics and Medical Devices



DEPARTMENT SPECIFIC LABORATORIES

Mechatronics Laboratories

A hydraulic trainer kit is an educational tool designed to teach principles and applications of hydraulic systems, often used in engineering and technical training programs. A hydraulic trainer kit serves as a valuable tool for students, technicians, and engineers to gain a comprehensive understanding of hydraulic systems and develop the skills necessary for designing, operating, and maintaining these systems in various industrial applications.



Steam Boiler with turbine setup



4-stroke Diesel Engine with hydraulic loading

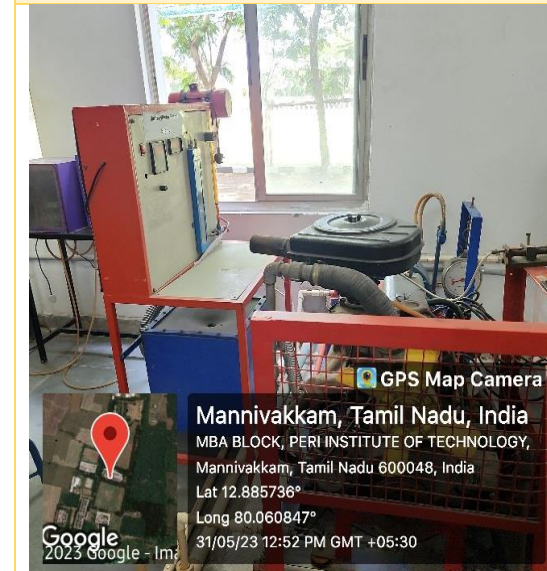
Thermal Engineering Laboratory



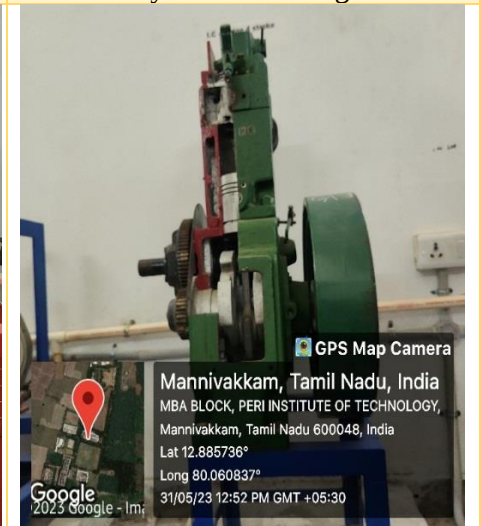
I.C Engine – 2 stroke and 4 stroke model



4-stroke Diesel Engine with Electrical loading



Multi-Cylinder Petrol Engine



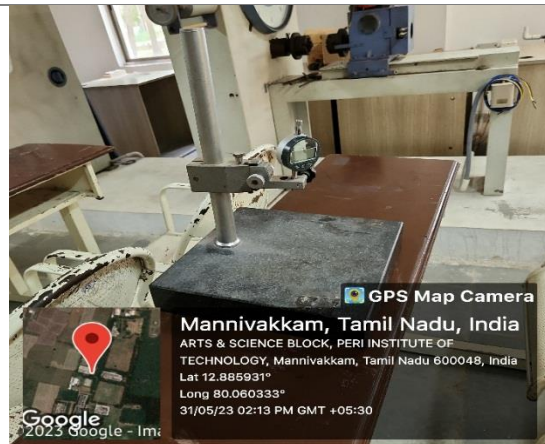
Single Cylinder Petrol Engine

Metrology Laboratory

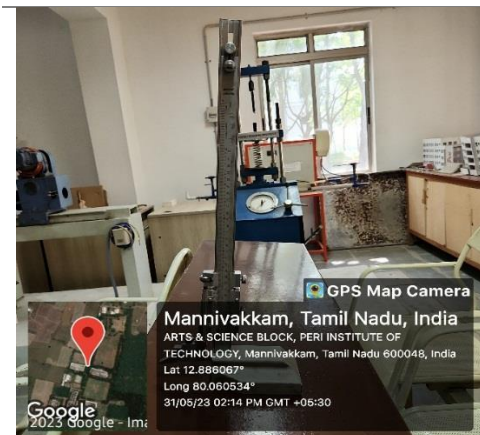
Dynamics Laboratory



Profile Projector



Mechanical / Electrical / Pneumatic Comparator



Vernier Height Gauge



Floating Carriage Micrometer



Slip Gauge Set



Gear Tooth Vernier



Govenor apparatus – Watt, Porter, Proell and Hartnell governors



Motorised gyroscope



CAM Analysis Setup



Dynamic balancing machine



Whirling of Shaft



Turn table apparatus

CAD/CAM Laboratory



A3 size plotter



Laser Printer

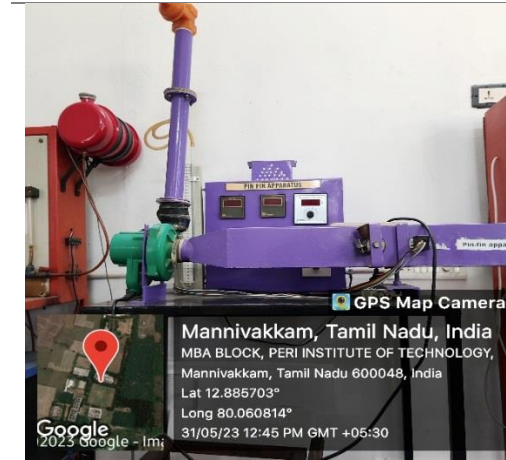


CNC Lathe



CNC Milling Machine

Heat Transfer Laboratory



Pin-fin apparatus



Emissivity measurement apparatus



Refrigeration test rig



Forced convection inside tube apparatus

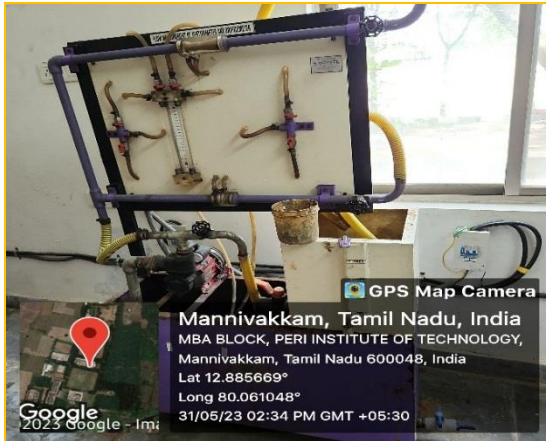


Lagged pipe apparatus

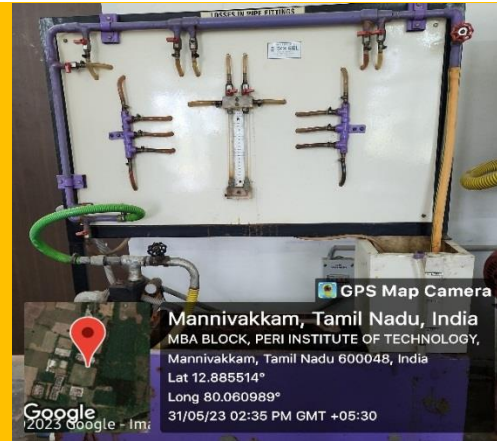


Stefan-Boltzmann apparatus

Strength of Materials & Fluid Machinery Laboratory



Venturimeter setup



Friction Apparatus setup



Compression test on helical spring



UTM



Pelton Wheel turbine set up



Brinell & Rockwell Hardness Testing Machine

Manufacturing Technology Laboratory



Centre Lathes



Shaper



Horizontal Milling Machine



Gear Hobbing Machine



Surface Grinding Machine



Cylindrical Grinding Machine

Engineering Practices Laboratory



Foundry Work



Engineering Practices Laboratory



Welding Work



Foundry Work



Basic Machining Work



Basic Machining Work

DEPARTMENT SPECIFIC LABORATORIES

Thermal Fluid Sciences Laboratory

This laboratory focuses on research related to heat transfer, fluid dynamics, and thermodynamics. With experimental setups, computational fluid dynamics (CFD) software, and thermal imaging equipment, researchers investigate phenomena such as convective heat transfer, turbulence, and multiphase flows. Applications range from optimizing energy systems to enhancing thermal management in electronic devices.

Materials Characterization Facility

Dedicated to the characterization of materials at the micro- and nano-scale, this facility houses advanced equipment such as Fatigue Testing Machine and Pin-on-disc. Researchers utilize these tools to analyze material properties, investigate failure mechanisms, and design new materials for applications in structural engineering, nanotechnology, and biomaterials.

COLLABORATIVE SPACES

Beyond specialized laboratories, the Mechanical Engineering Department provides collaborative spaces where researchers from different disciplines converge to exchange ideas and work on interdisciplinary projects.

MAKERSPACE

The Innovation Hub serves as a dynamic workspace where researchers, industry partners, and entrepreneurs collaborate on innovative projects. Equipped with flexible workstations, brainstorming areas, and prototyping facilities, this space fosters creativity, facilitates knowledge exchange, and accelerates the translation of research into real- world solutions.

MAJOR SOFTWARES AVAILABLE

AUTOCAD

AutoCAD is a software developed and marketed by Autodesk Inc, an American multinational software corporation. This software is used by aeronautical engineers, architecture firms, civil engineers, and mechanical engineers for computational drafting as well as computer aided design purposes.



SOLIDWORKS

The facility created by having Solid Works 2020, provides the platform for designing 3D and 2D assembly along with part drawings of student- innovative projects.



CATIA

CATIA is computer aided design software developed and marketed by a French company, Dassault Systems. It has gained more popularity in the field of aeronautical engineering though it is used as design software in the field of mechanical and civil engineering. It is also a multi- platform software that provides interface between computer aided design, computer aided engineering, PLM and additive manufacturing.



ANSYS

Ansys is a computer aided engineering software that is developed and marketed by Ansys Inc. It is also one of the common software that is preferred by an engineering graduate student, capable of multi-physics engineering solutions through numerical methods. It offers both implicit and explicit solvers such as AutoDyn, LS-Dyna etc.



CADEM

Software for the mechanical design of pressure vessels, storage tanks, heat exchangers, reactors, agitators, mixing vessels etc.



ARISTOSIM

Software for robot programming and simulation. Ready-made applications are available to train the user in the operations of the robot such as movement, programming and code generation. This software gives you the flexibility to design your applications and import them into the software for simulation. ARISTOSIM has graphics which enable you to visualize the robot from various angles as the robot moves in the simulated application.



FACULTY INFORMATION



DR. M. RAJAGOPAL.,
Professor



DR. TAMILOLI.,
Professor



MR. P. DHILIP KUMAR.,
Assistant Professor



MR. E. SOUNTHARARASU.,
Assistant Professor



DR. MOHAMED ABBAS S.,
Associate Professor



DR. K. VIGNESH.,
Associate Professor



MR. PRABAKARAN. P.,
Assistant Professor



MR. AR VIGNESH.,
Assistant Professor



DR. V. ABHILASH.,
Assistant Professor



MR. ANIL KUMAR.,
Assistant Professor

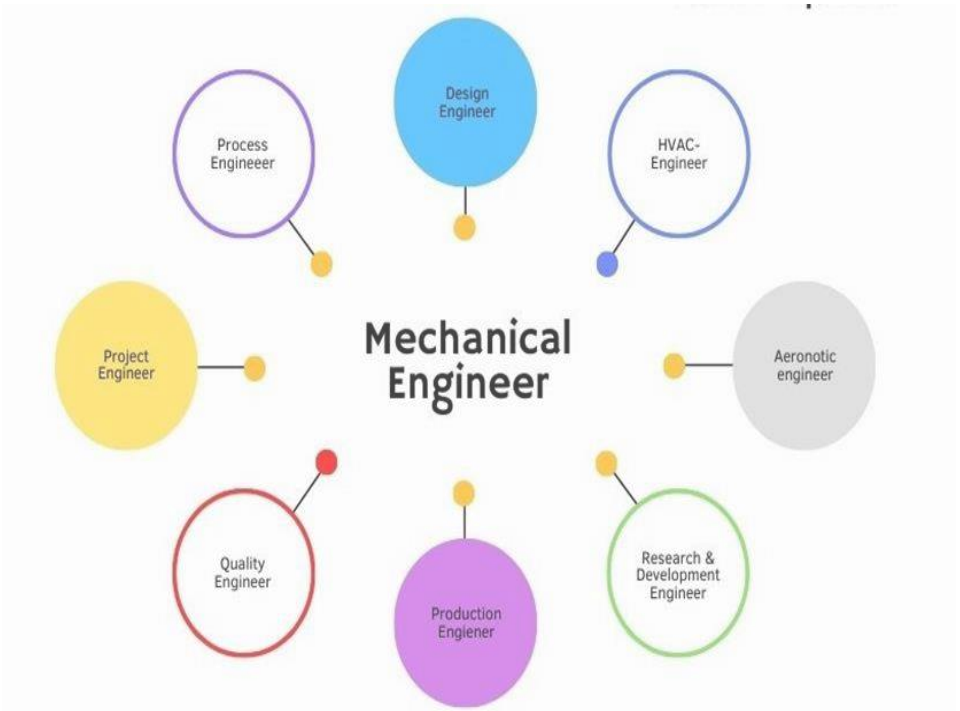


MR. VIGNESHKUMAR MANI.,
Assistant Professor

What

Mechanical Engineers do?

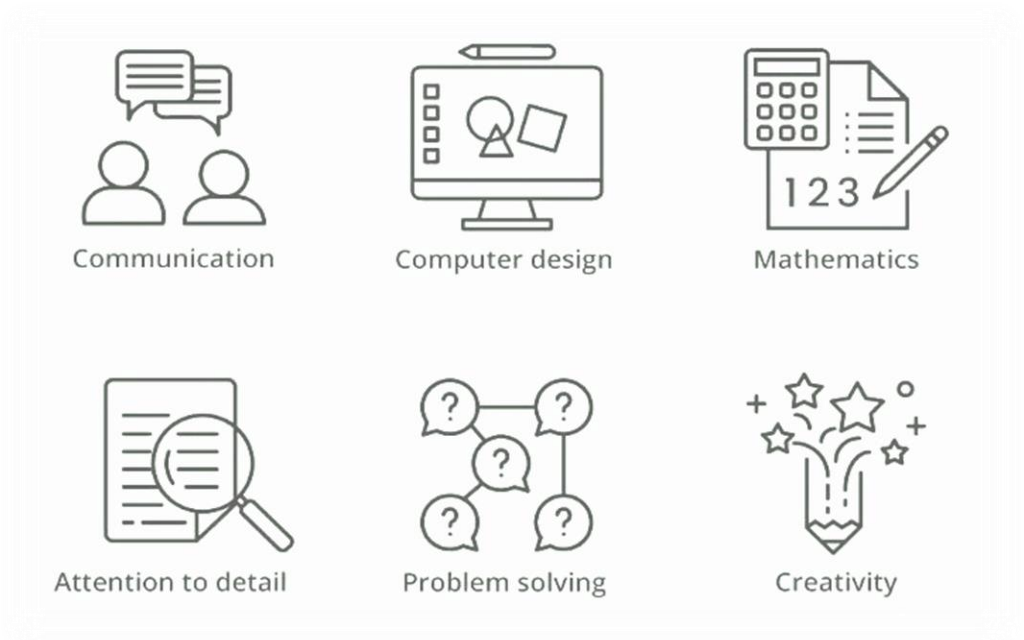
Mechanical engineers design power-producing machines, such as electric generators, internal combustion engines, and steam and gas turbines, as well as power-using machines, such as refrigeration and air-conditioning systems.



- ❖ Equipment design and development: Mechanical engineers design and develop equipment and machinery for oil and gas exploration, production, and transportation.
- ❖ Maintenance and repair: Mechanical engineers are responsible for maintaining and repairing the equipment and machinery used in the oil and gas industry.
- ❖ Safety and regulatory compliance: Mechanical engineers must ensure that all equipment and machinery used in the oil and gas industry meets safety and regulatory standards.
- ❖ Project management: Mechanical engineers may also be responsible for managing projects related to the design, development, and implementation of new equipment and machinery.

❖ Research and development: Mechanical engineers in the oil and gas industry may also be involved in research and development efforts to improve the emciency and effectiveness of equipment and machinery used in oil and gas exploration, production, and transportation

Skills Mechanical Engineers Posses



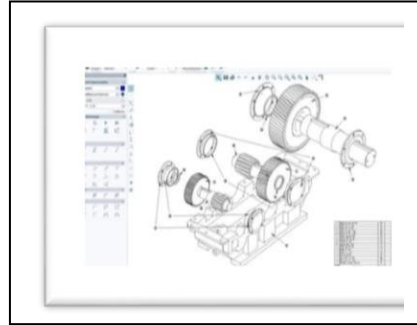
1. Communication

Mechanical engineering is never a solo venture. The profession involves collaborating with other engineers, designers, testers, and leaders at various stages of the product development cycle to create an effective end result and meet all the necessary requirements.



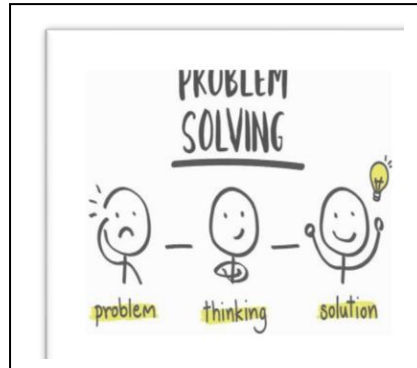
2. Computer design

Since they frequently work with CAD programs, mechanical engineers need computer design skills. They typically use CAD (computer-aided design) software to imagine and construct mechanical products and systems, which forms a key part of the initial product development process.



3. Problem solving

Mechanical engineers must also possess strong problem-solving skills. They typically use these abilities alongside a keen eye for detail to identify and fix issues in their projects. This could involve finding a more robust material to strengthen an exterior covering, for instance, or restructuring the wiring of a device to ensure complete functionality.



4. Creativity

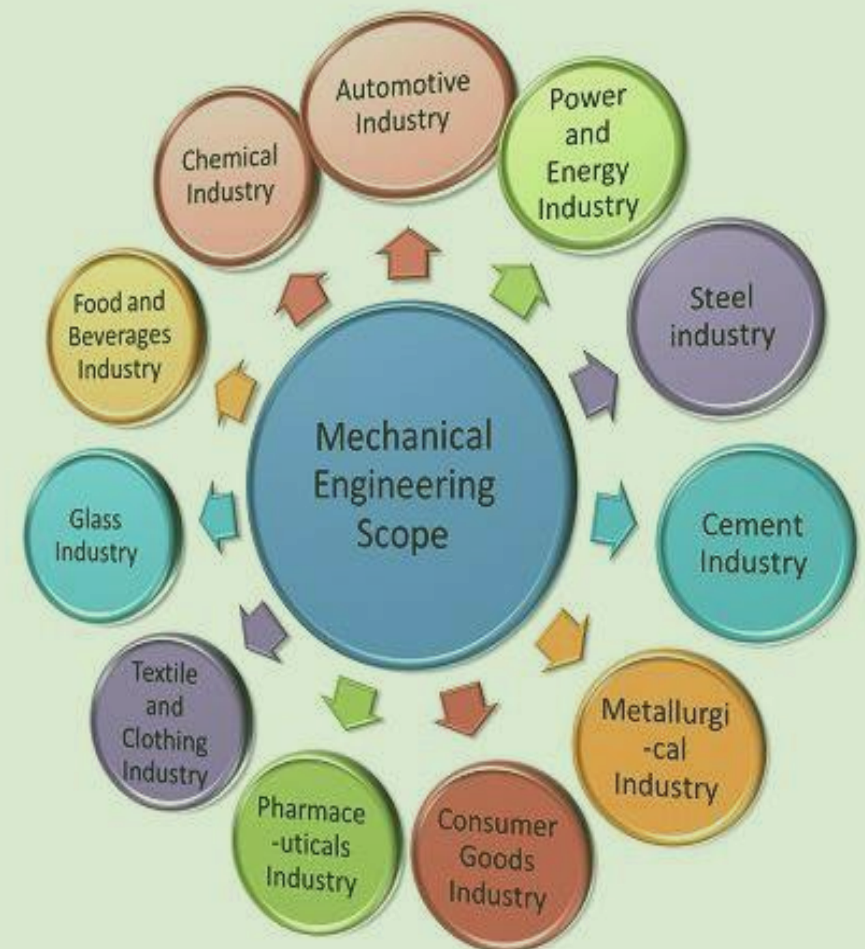
Mechanical engineers are involved in designing products and mechanical systems that utilize modern software and components. Since technology constantly evolves, mechanical engineers must be creative to adapt to new concepts.



Area of Mechanical

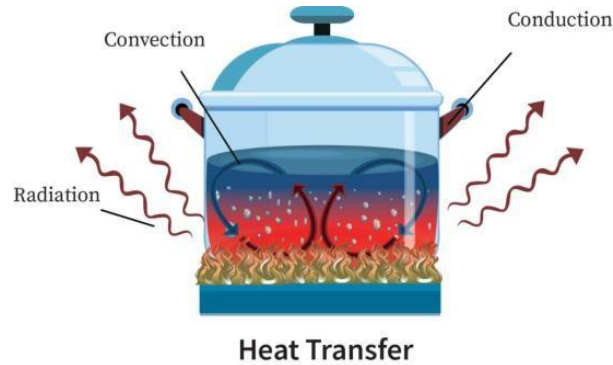
Engineering Expertise

Mechanical engineering offers a diverse range of career opportunities and specializations, allowing professionals to work on various projects related to. Overview of the various sub-disciplines within Mechanical engineering, highlighting the diverse areas in which Mechanical engineers can specialize. Each segment of the circle represents a different specialty.



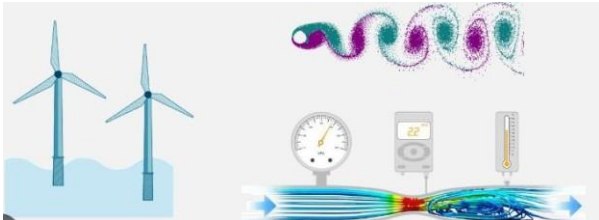
1. Thermodynamics and Heat Transfer

- ❖ Thermodynamics: Study of energy, heat, and work.
- ❖ Heat Transfer: Mechanisms of heat exchange (conduction, convection, and radiation).



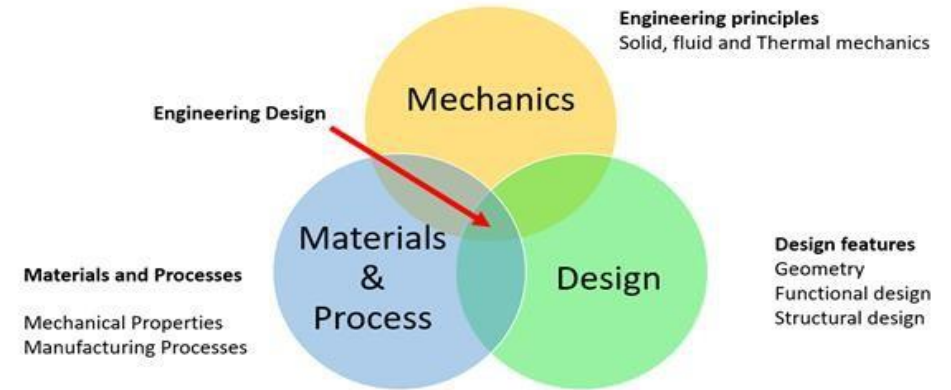
2. Fluid Mechanics

- ❖ Fluid Dynamics: Behaviour of fluids in motion.
- ❖ Hydraulics: Use of fluids to transmit power.
- ❖ Aerodynamics: Study of air and other gases in motion.



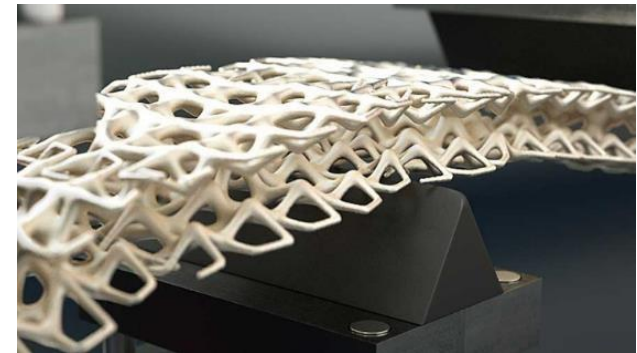
3. Materials Science and Engineering

- ❖ Material Properties: Study of the physical and chemical properties of materials.
- ❖ Metallurgy: Science of metals and their properties.
- ❖ Composite Materials: Development and analysis of materials made from two or more constituent materials.



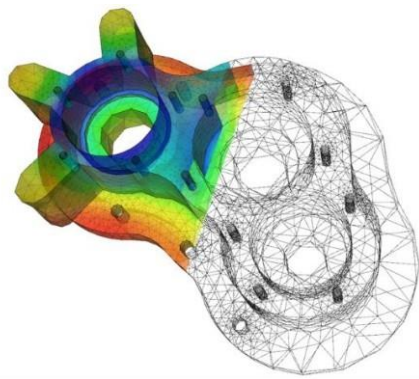
4. Solid Mechanics

- ❖ Stress and Strain Analysis: Study of forces and deformation in solid materials.
- ❖ Vibrations: Analysis of oscillatory systems.
- ❖ Fracture Mechanics: Study of the propagation of cracks in materials.



5. Mechanical Design and CAD (Computer-Aided Design)

- ❖ Product Design: Creating new mechanical components and systems.
- ❖ CAD Software: Using software to design and simulate mechanical parts.
- ❖ Finite Element Analysis (FEA): Numerical method for predicting how a part or assembly behaves under given conditions.



6. Manufacturing Engineering

- ❖ Manufacturing Processes: Techniques for producing mechanical parts (casting, machining, forming, etc.).
- ❖ Additive Manufacturing: 3D printing and other layer-by-layer manufacturing techniques.
- ❖ Quality Control: Ensuring products meet specified standards.



7. Control Systems

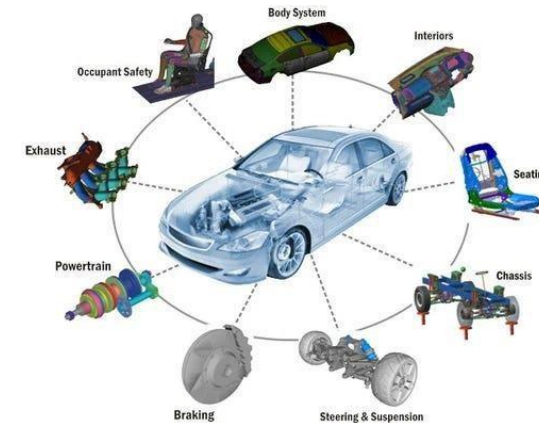
- ❖ Automation: Use of control systems to operate equipment with minimal human intervention.
- ❖ Robotics: Design and application of robots.
- ❖ Mechatronics: Integration of mechanical, electronic, and computer systems.

8. Energy Systems

- ❖ Power Generation: Design and analysis of systems that generate energy (e.g., turbines, engines).
- ❖ Renewable Energy: Study and application of energy from renewable sources (solar, wind, geothermal).
- ❖ HVAC (Heating, Ventilation, and Air Conditioning): Design of systems for climate control in buildings and vehicles.

9. Automotive Engineering

- ❖ Vehicle Dynamics: Study of forces and motion in vehicles.
- ❖ Engine Design: Design and analysis of internal combustion engines and electric motors.
- ❖ Transportation Systems: Analysis and optimization of transportation networks.



10. Biomechanical Engineering

- ❖ Prosthetics and Orthotics: Design of artificial limbs and supportive devices.
- ❖ Biomechanics: Study of the mechanics of biological systems.
- ❖ Medical Devices: Design and analysis of equipment used in medical applications.

COURSE MENU

SEMESTER I

S.No.	COURSE CODE	COURSE TITLE	CATEGORY	PERIOD PER WEEK			TOTAL CONTACT PERIOD	CREDIT
				L	T	P		
THEORY								
1.	24SH108106	Life Skills - I	EEC	1	0	0	1	1
2.	24SH108108	Personal and Professional Competencies for Engineers	EEC	1	0	0	1	1
3.	24SH101105	Engineering Mathematics – I	BSC	3	1	0	4	4
4.	24ME101102	Introduction to Mechanical Engineering	PCC	3	0	0	3	3
5.	24CS101102	Fundamentals of programming for problem Solving	ESC	3	0	0	3	3
6.	24ME105101	Engineering Graphics and Design	ESC	2	0	4	6	4
LAB INTEGRATED THEORY								
7.	24SH102103	Materials Physics	BSC	3	0	2	5	4
PRACTICALS								
8.	24CS103103	Basic Programming Lab	ESC	0	0	4	4	2
9.	24SH108107	Communication Lab - I	HSMC	0	0	2	2	1
TOTAL				16	1	12	29	23

SEMESTER II

S.No.	COURSE CODE	COURSE TITLE	CATEGORY	PERIOD PER WEEK			TOTAL CONTACT PERIOD	CREDIT
				L	T	P		
THEORY								
1.	24SH108205	Life Skills - II	EEC	1	0	0	1	1
2.	24SH101206	Tamils and Technology	HSMC	1	0	0	1	1
3.	24EE101202	Basic Electrical and Electronics Engineering	ESC	4	0	0	4	4
4.	24ME101201	Engineering Mechanics	PCC	3	0	0	3	3
LAB INTEGRATED COURSE								
5.	24SH102204	Engineering Chemistry	BSC	3	0	2	5	4
6.	24SH102202	Engineering Mathematics – II	BSC	3	0	2	5	4
PRACTICALS								
7.	24ME103202	Computer-Aided Design Lab	PCC	0	0	4	4	2
8.	24ME103203	IDEA Lab Workshop	ESC	0	0	4	4	2
9.	24SH108207	Communication Lab - II	HSMC	0	0	2	2	1
MANDATORY COURSE								
10.	24SH112203	Environmental Science and Engineering	MC	2	0	0	2	0
TOTAL				17	0	14	31	22

SEMESTER-III

SEMESTER-IV

S.No.	COURSE CODE	COURSE TITLE	CATEG ORY	PERIOD PER WEEK			TOTAL CONTACT PERIOD	CREDIT	S.No.	COURSE CODE	COURSE TITLE	CATEGORY	PERIOD PER WEEK			TOTAL CONTACT PERIOD	CRED IT					
				L	T	P							L	T	P							
THEORY									THEORY													
1.		Transforms And Partial Differential Equations	BSC	3	1	0	4	4	1.		Fluid Mechanics & Machinery	ESC	4	0	0	4	4					
2.		Theory of Machines	PCC	3	0	1	4	3	2.		Strength of Materials for Mechanical Engineering	PCC	3	0	1	4	3					
3.		Engineering Thermodynamics	PCC	3	0	1	3	3	3.		Thermal Engineering	PCC	3	0	0	3	3					
4.		Materials Science	PCC	3	0	0	3	3	4.		Manufacturing Technology-II	BSC	3	0	1	4	3					
5.		Open Elective - I	OEC	2	0	0	2	3	5.		Professional Elective I	PEC	3	0	0	2	3					
6.		Life Skill III – Basic Conversation Skills	EEC	2	0	0	2	1	6.		Open Elective - II	OEC	3	0	0	3	3					
7.		Invention – Principles and Practices	EEC	0	0	2	2	1	7.		Holistic Personality Development and Behavioral Skills	EEC	2	0	0	2	1					
8.		Life Skill IV – Public Speaking Practices	EEC	2	0	0	2	1	8.		Life Skill IV – Public Speaking Practices	EEC	2	0	0	2	1					
LAB INTEGRATED COURSE									PRACTICALS													
8.		Manufacturing Technology-I	PPC	3	0	2	5	4	9.		Strength of Material & Fluid Mechanics Laboratory	PCC	0	0	4	4	1.5					
PRACTICALS									10.		Design & Manufacturing Laboratory (CAAD/CAM)	PCC	0	0	4	4	1.5					
9.		CAAD Laboratory	PCC	0	0	4	4	2	TOTAL									23	0	10	32	24

SEMESTER-V

S.No.	COURSE CODE	COURSE TITLE	CATEGORY	PERIOD PER WEEK			TOTAL CONTACT PERIOD	CREDIT
				L	T	P		
THEORY								
1.		Design of Transmission System	PCC	4	0	0	3	3
2.		Design for Manufacturing & Assembly	PCC	3	0	1	3	3
3.		Heat and Mass Transfer	PCC	3	0	1	4	4
4.		Automobile Engineering	PCC	3	0	1	4	3
5.		Life Skill IV	EEC	2	0	0	2	1
6.		Professional Elective II	PEC	3	0	0	3	3
7.		Open Elective - III	OEC	3	0	0	3	3
PRACTICALS								
8.		Thermal & HMT Laboratory	PCC	0	0	4	4	1.5
9.		Product Design Lab (CATIA)	PCC	0	0	4	4	1.5
MANDATORY COURSE								
10.		Essence of Indian Traditional Knowledge and Science	MC	0	0	1	1	0
TOTAL				21	0	12	31	23

SEMESTER-VI

S.No.	COURSE CODE	COURSE TITLE	CATEGORY	PERIOD PER WEEK			TOTAL CONTACT PERIOD	CREDIT
				L	T	P		
THEORY								
1.		Finite Element Analysis	PCC	4	0	0	4	4
2.		Mechanical, Electrical, and Plumbing Engineering	ESC	3	0	1	4	3
3.		Metrology & Quality Control Engineering	PCC	3	0	0	3	3
4.		Oil and Gas Piping Engineering	PCC	3	0	0	3	2
5.		Professional Elective III	PEC	3	0	0	3	3
6.		Open Elective – IV	OEC	3	0	0	3	3
7.		Life Skill IV	EEC	2	0	0	2	1
PRACTICALS								
8.		Engineering Analysis Laboratory	PCC	0	0	2	2	2
MANDATORY COURSE								
9.		Behavioral Science and Physcology	MC	1	0	0	1	0
TOTAL				26	0	9	31	21

SEMESTER-VII

S.No.	COURSE CODE	COURSE TITLE	CATEGORY	PERIOD PER WEEK			TOTAL CONTACT PERIOD	CREDIT
				L	T	P		
THEORY								
1.		Additive Manufacturing (3D Printing)	PCC	3	0	1	4	3
2.		Professional Elective IV	PEC	3	0	0	3	3
PRACTICALS								
3.		Internship	EEC	0	0	4	4	4
TOTAL				6	0	5	11	10

SEMESTER-VIII

S.No.	COURSE CODE	COURSE TITLE	CATEGORY	PERIOD PER WEEK			TOTAL CONTACT PERIOD	CREDIT
				L	T	P		
THEORY								
1.		Management Course-I	HSMC	3	0	0	3	3
2.		Management Course-II	HSMC	3	0	0	3	3
PRACTICALS								
3.		Project work	EEC	0	0	4	4	7
TOTAL				6	0	4	10	13

Professional Development for Skill Enhancement and Certification Programs

S.No	Name of the Course
1	CATIA Certification
2	Solid Works Certification
3	ANSYS Certification (Professional)
4	Autodesk- AUTOCAD, Revit, Fusion 360, Inventor
5	CNC Part Programming (Lathe Certification)
6	CNC Part Programming (CNC Milling Certification)
7	Hyper mesh Certification
8	Mat lab Simulation Certification
9	Non-Destructive Testing Certification

Verticals/Professional Electives									
Verticals / Professional Electives		Dept. Verticals/Professional Electives-MECH						Diversified /Professional Electives	
Vertical 1	Vertical 2	Vertical 3	Vertical 4	Vertical 5	Vertical 6	Vertical 7	Vertical 8	Vertical 9	Vertical 10
Computational Engineering	Logistics And Supply Chain Management	Robotics And Automation	Product Design	Digital Manufacturing	Energy Technology	Process Equipment And Piping Design	Modern Mobility Systems	Diversified Course Group I	Diversified Courses Group II
Machine Learning for Intelligent Systems	Reliability and Maintenance Engineering	Drone Technologies	Design of Jigs and fixtures	Digital Manufacturing and IoT	Measurement and control for energy system	Gas Dynamics & Jet Propulsion	Automotive Materials, Components, Design & Testing	Measurements and Controls	Precision Manufacturing
CAD and CAE	Warehousing Automation	Turbo Machine	Kinematics of Mechanics	Lean Manufacturing	Energy conservation And waste heat recovery	Failure Analysis and NDT Techniques	Conventional and Futuristic Vehicle Technology	Process Planning and Cost Estimation	Turbo Machines -
Numerical heat transfer	Operations Management	Robotics	Geometric Dimensioning and Tolerancing	Advanced Machining Processes	Renewable sources of Energy	Material Handling and solid processing Equipment	Renewable Powered Off Highway Vehicles and Emission Control Technology	Composite Materials and Mechanics	Non-traditional Machining Processes
Computational Fluid Dynamics	Material Handling Equipment, Repair and Maintenance	Mechatronics	Design of Experiments	Green Manufacturing Design and Practices	Electrical Vehicles Technology	Rotating Machinery Design	Vehicle Health Monitoring, Maintenance and Safety	Electrical Drives and Control	Industrial safety
Computational Bio-Mechanics	Supply chain and Logistics Management	Sensors and Instrumentation	Design with Advanced materials	Digital Twin & Industry 4.0	Introduction to Power Plant Engineering	Thermal and Fired Equipment design	CAE and CFD Approach in Future Mobility	Energy Conversation	Composite Materials and Mechanics
Advanced Statistics and Data Analytics	Production Planning and Control	Hydraulics and Pneumatics	Machine Drawing	IOT for Mechanical Operation	Refrigeration and Air conditioning Technology	Industrial Layout Design and Safety	Hybrid and Electric Vehicle Technology	Dynamics of Ground Vehicles	Fire Dynamics
Noise Acoustics and Vibration	Operations Research	Smart Mobility and Intelligent Vehicles	Product Life Cycle Management	Electronics Manufacturing technology	Advanced energy storage technologies	Design Codes and Standards	Thermal Management of Batteries and Fuel Cells	Casting and Welding Processes	Thermal Power Engineering

Department of Mechanical Engineering
OPEN ELECTIVE COURSES: VERTICALS

Vertical I	Vertical II	Vertical III	Vertical IV	Vertical V
Open Elective Offered By Computer Engineering	Open Elective Offered By Electronics & Communication Engineering	Open Elective Offered By Civil Engineering	Open Elective Offered By Electrical & Electronics Engineering	Open Elective Offered By Mechanical Engineering
Basic Python Programming	Microcontroller and Embedded System	Civil Engineering Drawing Laboratory	Electrical CAD	AutoCAD
Advanced Python Programming	Advanced Embedded System and IoT	Civil Engineering Modelling Laboratory I	Design Implementation and Commissioning of Solar and Wind Energy Systems	Solid Works
Core Java Programming	VLSI Design and MEMS Technology	Computational Structural Analysis Laboratory	PLC and SCADA Systems	ANSYS
Advanced Java Programming	Digital Design by using VHDL/Verilog	Plan Analysis & Design of Structure	Electrical Vehicle Design	-
Database Management System	-	HVAC	-	-
Advanced Database Management System	-	-	-	-

Department activity

Guest Lecturer



PERI
INSTITUTE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)

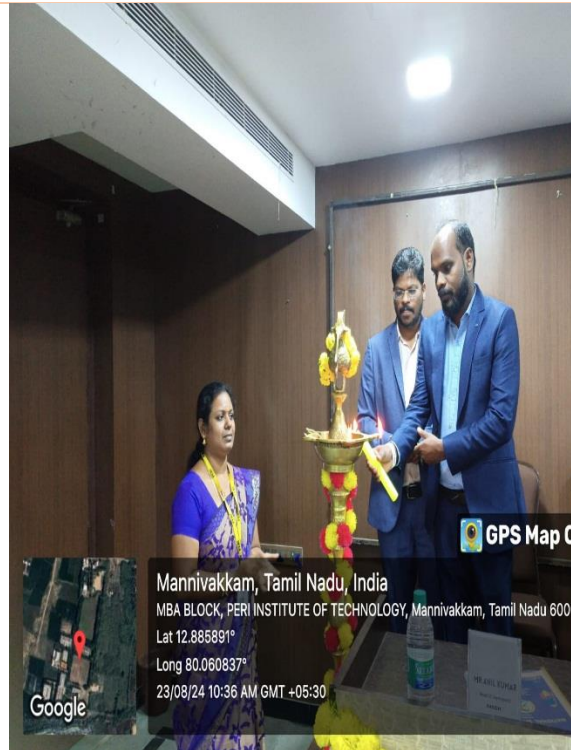
23 AUG 2024
10.00 AM

Cordially Invites You to a
GUEST LECTURE
ON THE OCCASION OF CELEBRATION OF
NATIONAL SPACE DAY
Guided by the Internal Quality Assurance Cell (IQAC)

Honored Speaker
Er. D.GOKUL
Project Manager, ISLV, ISRO
HOD IGIN
Honorary Secretary, IIT TNMC,
Joint Secretary, HEMSI SHAR CHAPTER
Founder, President EWB, Chennai
Advisor, Abdul Kalam International Foundation,
Rameswaram

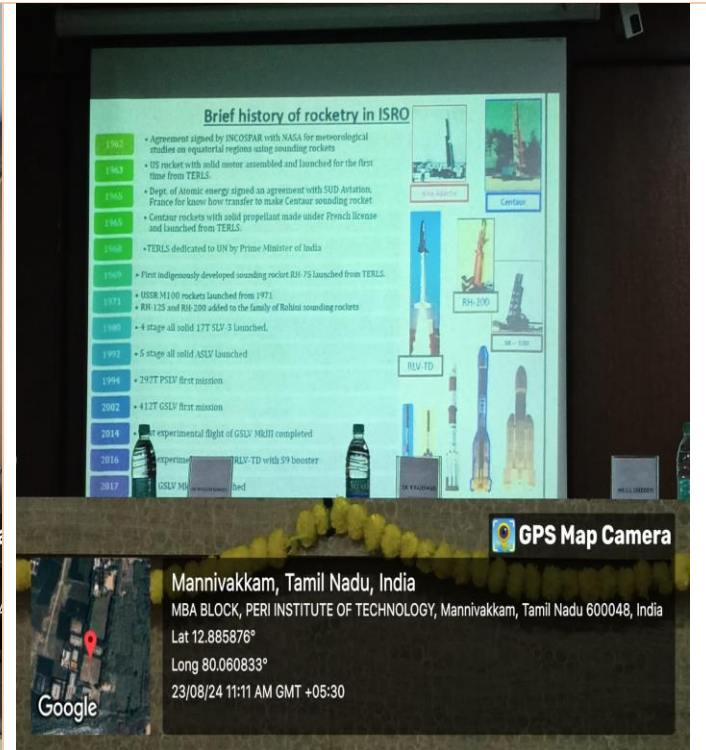
ADMISSION ENQUIRY - CONTACT US : **91505 94111 / 222**
PERI Knowledge Park, Mannivakkam, Chennai - 600048

www.peri.education
admissions@peri.education



GPS Map Camera

Mannivakkam, Tamil Nadu, India
MBA BLOCK, PERI INSTITUTE OF TECHNOLOGY, Mannivakkam, Tamil Nadu 600048
Lat 12.885891°
Long 80.060837°
23/08/24 10:36 AM GMT +05:30



Brief history of rocketry in ISRO

- 1962 • Agreement signed by INCOSPAR with NASA for meteorological studies on equatorial regions using sounding rockets
- 1963 • US rocket with solid motor assembled and launched for the first time from TERLS
- 1965 • Dept. of Atomic energy signed an agreement with SUD Aviation, France for know how transfer to make Centaur sounding rocket
- 1968 • Centaur rockets with solid propellant made under French license and launched from TERLS
- 1968 • TERLS dedicated to UN by Prime Minister of India
- 1969 • First indigenously developed sounding rocket RH-75 launched from TERLS
- 1971 • USSR M100 rockets launched from 1971
- 1971 • RH-125 and RH-200 added to the family of Rohini sounding rockets
- 1981 • 4 stage all solid 17T SLV-3 launched
- 1992 • 5 stage all solid ASLV launched
- 1994 • 2927 PSLV first mission
- 2002 • 4127 GSLV first mission
- 2014 • First experimental flight of GSLV MkIII completed
- 2016 • First experimental flight of GSLV MkIII with SP booster
- 2017 • First experimental flight of GSLV MkIII with SP booster

GPS Map Camera

Mannivakkam, Tamil Nadu, India
MBA BLOCK, PERI INSTITUTE OF TECHNOLOGY, Mannivakkam, Tamil Nadu 600048, India
Lat 12.885876°
Long 80.060833°
23/08/24 11:11 AM GMT +05:30

Seminar



GPS Map Camera

Mannivakkam, Tamil Nadu, India
Mba Block, Peri Institute Of Technology,
Mannivakkam, Tamil Nadu 600048, India
Lat 12.885798° Long 80.061005°
06/02/2025 02:54 PM GMT +05:30



PERI
INSTITUTE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)

DEPARTMENT OF MECHANICAL ENGINEERING
(PERIT MECHANICAL ENGINEERING STUDENTS ASSOCIATION)

Organizes
SEMINAR ON
**HUMAN-ROBOT COLLABORATION
IN MANUFACTURING**

Chief Guest
Mr. SREERAJ S.V., B.E., M.E.
Director - Technical & Operation
EMCOG SOLUTIONS PRIVATE LIMITED

Dr. R. PALSON KENNEDY
Principal

Mr. B. MAGESH
Vice-Principal

Mr. ANIL KUMAR
HOD - MECH

ADMISSION CONTACT :
91505 94111 / 222

www.peri.education
admissions@peri.education

PERI Knowledge Park, Mannivakkam, Chennai - 600048



GPS Map Camera

Mannivakkam, Tamil Nadu, India
College Of Pharmacy, Peri Institute Of Technology, Mannivakkam,
Tamil Nadu 600048, India
Lat 12.887251° Long 80.060976°
22/10/24 02:21 PM GMT +05:30

Club Activity

PERI
INSTITUTE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)

DEPARTMENT OF MECHANICAL ENGINEERING
(PERIIT MECHANICAL STUDENTS ASSOCIATION)


AUTOMATEX CLUB

Faculty Advisor:
Mr. PRABHAKARAN P
Assistant Professor,
Mechanical Department

Student coordinator:
Mr. MANIRAJ T

Inaugurated by:
Er. ANIL BABU S
Managing Director,
KFB Acoustics, Poland, Location – KFB - India

PERI
INSTITUTE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)

DEPARTMENT OF MECHANICAL ENGINEERING
(PERIIT MECHANICAL STUDENTS ASSOCIATION)


NEW PRODUCT DEVELOPMENT CLUB
INNOVATE, CREATE, ELEVATE

INNOVATE, CREATE, ELEVATE - TURNING IDEAS INTO REALITY

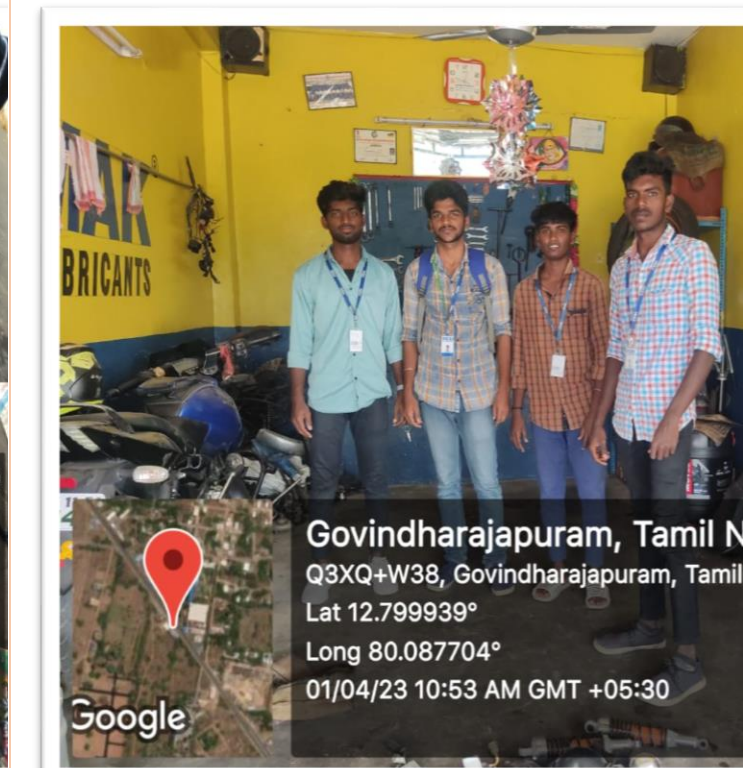
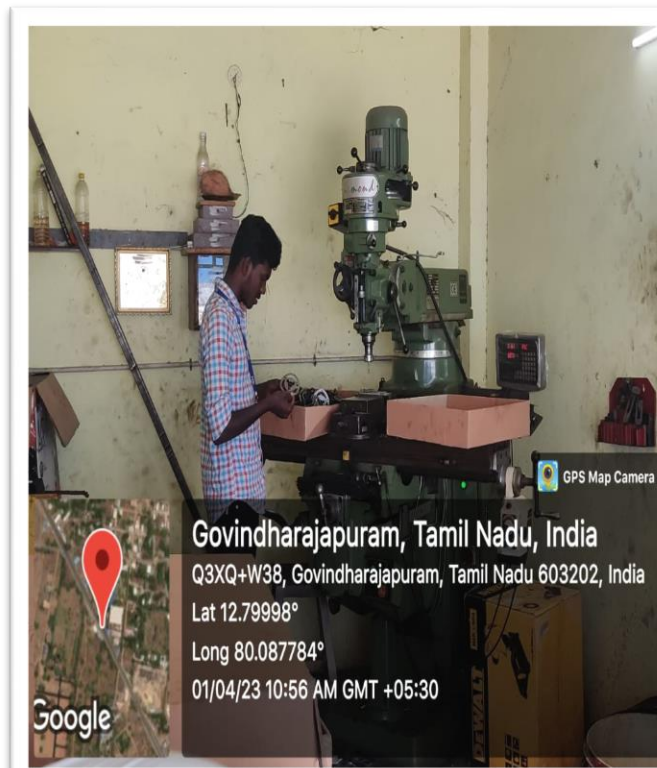
Faculty Advisor:
Mr. G. VAITHIYANATHAN
Assistant Professor,
Mechanical Department

Student coordinator:
Mr. JAYANTH P

Inaugurated by:
Mr. SWAMINATHAN CHANDRASEKARAN, B.E., MSEGEMANI
Director - Growth & Strategy,
Aswin Cold Forge Private Limited.



Field Visit



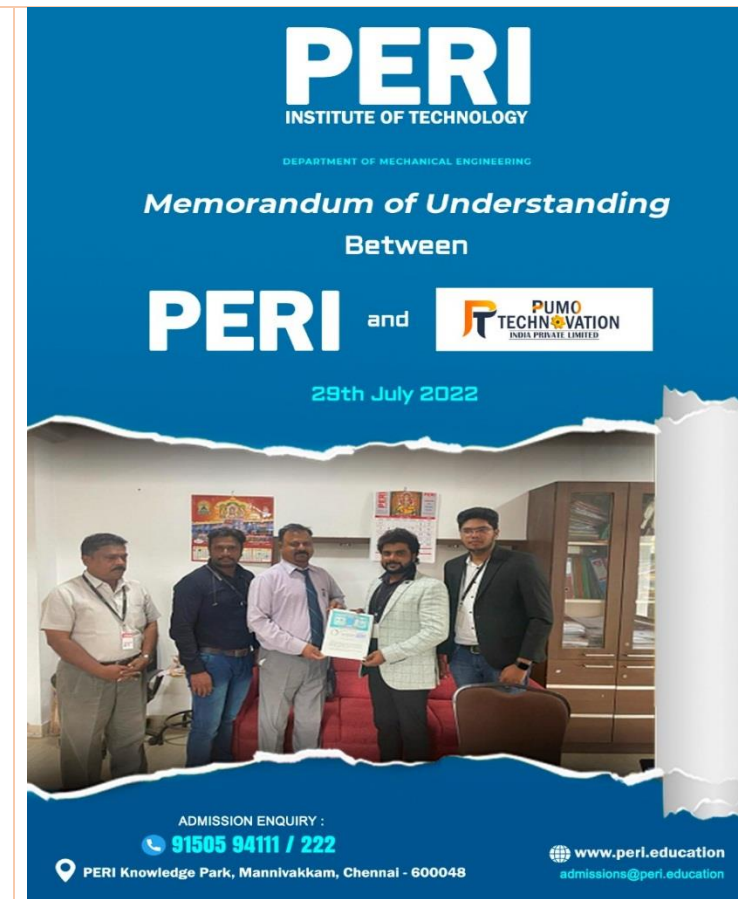
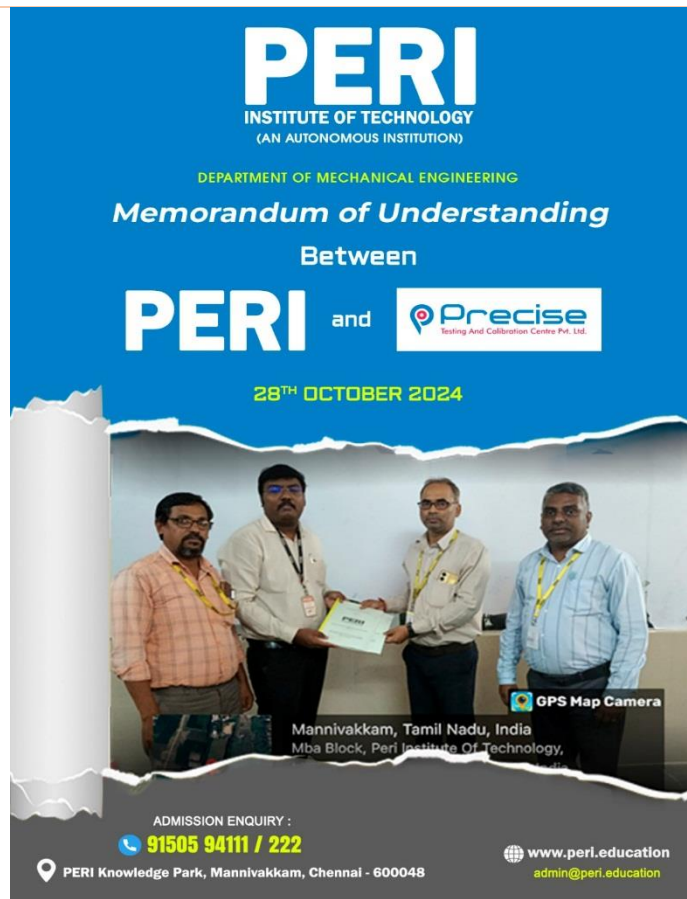
Industrial Visit



Conference

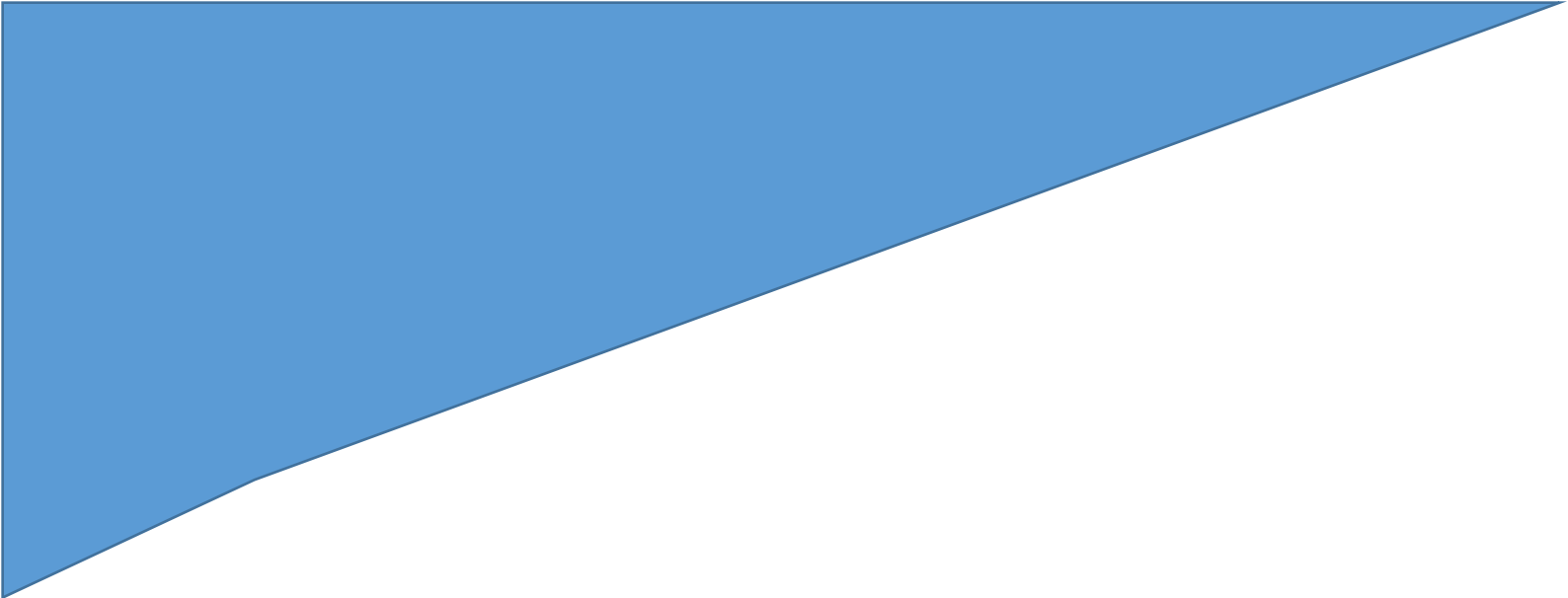


MOU



REGULAR ACTIVITIES AT A GLANCE

- E-learning content based training on Reasoning, Quantitative, Analytical and Verbal skills.
- Software and Technology training provided PERI Software Solutions Engineers
- Periodical Online Aptitude Test sessions
- Periodical Technical Training sessions by industry representatives
- Interview Skills training by industry personnel
- Value Added Training sessions on Soft Skills
- Mock interviews and group discussions
- Campus and off-campus interviews
- Industrial visits & guest lectures



CONTACT US

PERI Institute of Technology

+91 44 3505 5400 - Ext: 9000

+91505 94111 / 91505 94222

PERI Knowledge Park, Mannivakkam, Chennai - 600 048.

admin@peri.education

