A.R.J COLLEGE OF ENGINEERING AND TECHNOLOGY,
Edayaranatham - Mannargudi
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai-25
(An ISO 9001:2015 Certified Institution)

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Mechanical Engineering

S.No	Courses	Course Outcomes	Blooms Taxonomy Level
SEMESTER - I	HS3152 : PROFESSIONAL ENGLISH – I	**CO1:** To use appropriate words in a professional context	K3
		CO2: To gain understanding of basic grammatical structures and use them in right context.	K2
		CO3: To read and infer the denotative and connotative meanings of technical texts	K1
		CO4: To read and interpret information presented in tables, charts and other graphic forms	K1
		CO5: To write definitions, descriptions, narrations and essays on various topics	K6
	MA3151: MATRICES AND CALCULUS	**CO1:** Use the matrix algebra methods for solving practical problems.	K3
		CO2: Apply differential calculus tools in solving various application problems.	K3
		CO3: Able to use differential calculus ideas on several variable functions.	K3
		CO4: Apply different methods of integration in solving practical problems.	K3
		CO5: Apply multiple integral ideas in solving areas, volumes and other practical problems.	K3
	PH3151: ENGINEERING PHYSICS	**CO1:** Understand the importance of mechanics.	K2
		CO2: Express their knowledge in electromagnetic waves.	K1
		CO3: Demonstrate a strong foundational knowledge in oscillations, optics and lasers.	K2
		CO4: Understand the importance of quantum physics	K2
		CO5: Comprehend and apply quantum mechanical principles towards the formation of energy bands	K2
	CY3151 : ENGINEERING CHEMISTRY	**CO1:** To infer the quality of water from quality parameter data and propose suitable treatment methodologies to treat water.	K2
		CO2: To identify and apply basic concepts of nanoscience and nanotechnology in designing the synthesis of nanomaterials for engineering and technology applications.	K1
		CO3: To apply the knowledge of phase rule and composites for material selection requirements.	K3

		CO4: To recommend suitable fuels for engineering processes and applications.	K5
		CO5: To recognize different forms of energy resources and apply them for suitable applications in energy sectors.	K1

	GE3151: PROBLEM SOLVING AND PYTHON PROGRAMMING	**CO1:** Develop algorithmic solutions to simple computational problems.	K6
		CO2: Develop and execute simple Python programs.	K6
		CO3: Write simple Python programs using conditionals and looping for solving problems.	K6
		CO4: Decompose a Python program into functions.	K4
		CO5: Represent compound data using Python lists, tuples, dictionaries etc.	K3
		CO6: Read and write data from/to files in Python programs.	K1
	GE3171: PROBLEM SOLVING AND PYTHON PROGRAMMING LABORATORY	**CO1:** Develop algorithmic solutions to simple computational problems	K6
		CO2: Develop and execute simple Python programs.	K6
		CO3: Implement programs in Python using conditionals and loops for solving problems.	K3
		CO4: Deploy functions to decompose a Python program.	K4
		CO5: Process compound data using Python data structures.	K3
		CO6: Utilize Python packages in developing software applications.	K3
	BS3171: PHYSICS AND CHEMISTRY LABORATORY	**CO1:** Understand the functioning of various physics laboratory equipment.	K2
		CO2: Use graphical models to analyze laboratory data.	K3
		CO3: Use mathematical models as a medium for quantitative reasoning and describing physical reality.	K3
		CO4: Access, process and analyze scientific information.	K3
		CO5: Solve problems individually and collaboratively.	K3

	GE3172: ENGLISH LABORATORY	**CO1:** To listen to and comprehend general as well as complex academic information	K2
		CO2: To listen to and understand different points of view in a discussion	K2
		CO3: To speak fluently and accurately in formal and informal communicative contexts	K1
		CO4: To describe products and processes and explain their uses and purposes clearly and accurately	K1
		CO5: To express their opinions effectively in both formal and informal discussions	K1
SEMESTER – II	**HS3252: PROFESSIONAL ENGLISH - II**	**CO1:** To compare and contrast products and ideas in technical texts.	K4
		CO2: To identify and report cause and effects in events, industrial processes through technical texts	K1
		CO3: To analyse problems in order to arrive at feasible solutions and communicate them in the written format.	K4
		CO4: To present their ideas and opinions in a planned and logical manner	K2
		CO5: To draft effective resumes in the context of job search.	K6
	MA3251: STATISTICS AND NUMERICAL METHODS	**CO1:** Apply the concept of testing of hypothesis for small and large samples in real life problems.	K3
		CO2: Apply the basic concepts of classifications of design of experiments in the field of agriculture.	K3
		CO3: Appreciate the numerical techniques of interpolation in various intervals and apply the numerical techniques of differentiation and integration for engineering problems	K5
		CO4: Understand the knowledge of various techniques and methods for solving first and second order ordinary differential equations.	K2
		CO5: Solve the partial and ordinary differential equations with initial and boundary conditions by using certain techniques with engineering applications.	K3
	PH3251: MATERIALS	**CO1:** know basics of crystallography and its importance for varied materials properties	K1

	SCIENCE	**CO2:** gain knowledge on the electrical and magnetic properties of materials and their applications	K2
		CO3: understand clearly of semiconductor physics and functioning of semiconductor devices	K2
		CO4: understand the optical properties of materials and working principles of various optical devices	K2
		CO5: appreciate the importance of functional nanoelectronic devices.	K5
	BE3251: BASIC ELECTRICAL AND ELECTRONICS ENGINEERING	**CO1:** Compute the electric circuit parameters for simple problems	K6
		CO2: Explain the working principle and applications of electrical machines	K1
		CO3: Analyze the characteristics of analog electronic devices	K4
		CO4: Explain the basic concepts of digital electronics	K1
		CO5: Explain the operating principles of measuring instruments	K1
	GE3251: ENGINEERING GRAPHICS	**CO1:** Use BIS conventions and specifications for engineering drawing.	K3
		CO2: Construct the conic curves, involutes and cycloid.	K6
		CO3: Solve practical problems involving projection of lines.	K3
		CO4: Draw the orthographic, isometric and perspective projections of simple solids.	K6
		CO5: Draw the development of simple solids.	K6
	GE3271 ENGINEERING PRACTICES LABORATORY	**CO1:** Draw pipe line plan; lay and connect various pipe fittings used in common household plumbing work; Saw; plan; make joints in wood materials used in common household wood work.	K6

		CO2: Wire various electrical joints in common household electrical wire work.	K6
		CO3: Weld various joints in steel plates using arc welding work; Machine various simple processes like turning, drilling, tapping in parts; Assemble simple mechanical assembly of common household equipments; Make a tray out of metal sheet using sheet metal work.	K6
		CO4: Solder and test simple electronic circuits; Assemble and test simple electronic components on PCB.	K6
SEMESTER - III	**BE327: 1 BASIC ELECTRICAL AND ELECTRONICS ENGINEERING LABORATORY**	**CO1:** Use experimental methods to verify the Ohm's and Kirchhoff's Laws.	K3
		CO2: Analyze experimentally the load characteristics of electrical machines	K4
		CO3: Analyze the characteristics of basic electronic devices	K4
		CO4: Use DSO to measure the various parameters	K3
	GE3272: COMMUNICATION LABORATORY	**CO1:** Speak effectively in group discussions held in a formal/semi formal contexts.	K1
		CO2: Discuss, analyse and present concepts and problems from various perspectives to arrive at suitable solutions	K4
		CO3: Write emails, letters and effective job applications.	K6
		CO4: Write critical reports to convey data and information with clarity and precision	K6
		CO5: Give appropriate instructions and recommendations for safe execution of tasks	K2
	MA3351: TRANSFORMS AND PARTIAL DIFFERENTIAL EQUATIONS	**CO1:** Understand how to solve the given standard partial differential equations.	K2
		CO2: Solve differential equations using Fourier series analysis which plays a vital role in engineering applications.	K3
		CO3: Appreciate the physical significance of Fourier series techniques in solving one- and two dimensional heat flow problems and one-dimensional wave equations.	K5

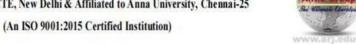|			
		CO4: Understand the mathematical principles on transforms and partial differential equations would provide them the ability to formulate and solve some of the physical problems of engineering.	K2
		CO5: Use the effective mathematical tools for the solutions of partial differential equations by using Z transform techniques for discrete time systems	K3
	ME3351 : ENGINEERING MECHANICS	**CO1:** Illustrate the vector and scalar representation of forces and moments	K3
		CO2: Analyse the rigid body in equilibrium	K4
		CO3: Evaluate the properties of distributed forces	K5
		CO4: Determine the friction and the effects by the laws of friction	K5
		CO5: Calculate dynamic forces exerted in rigid body	K3
	ME3391: ENGINEERING THERMODYNAMICS	**CO1:** Apply the zeroth and first law of thermodynamics by formulating temperature scales and calculating the property changes in closed and open engineering systems.	K3
		CO2: Apply the second law of thermodynamics in analysing the performance of thermal devices through energy and entropy calculations.	K3
		CO3: Apply the second law of thermodynamics in evaluating the various properties of steam through steam tables and Mollier chart	K3
		CO4: Apply the properties of pure substance in computing the macroscopic properties of ideal and real gases using gas laws and appropriate thermodynamic relations.	K3
		CO5: Apply the properties of gas mixtures in calculating the properties of gas mixtures and applying various thermodynamic relations to calculate property changes.	K3

CE3391 : FLUID MECHANICS AND MACHINERY	**CO1:** Understand the properties and behaviour in static conditions. Also, to understand the conservation laws applicable to fluids and its application through fluid kinematics and dynamics	K2
	CO2: Estimate losses in pipelines for both laminar and turbulent conditions and analysis of pipes connected in series and parallel. Also, to understand the concept of boundary layer and its thickness on the flat solid surface.	K2
	CO3: Formulate the relationship among the parameters involved in the given fluid phenomenon and to predict the performances of prototype by model studies	K4
	CO4: Explain the working principles of various turbines and design the various types of turbines.	K1
	CO5: Explain the working principles of centrifugal, reciprocating and rotary pumps and design the centrifugal and reciprocating pumps	K1
ME3392 : ENGINEERING MATERIALS AND METALLURGY	**CO1:** Explain alloys and phase diagram, Iron-Iron carbon diagram and steel classification.	K1
	CO2: Explain isothermal transformation, continuous cooling diagrams and different heat treatment processes.	K1
	CO3: Clarify the effect of alloying elements on ferrous and non- ferrous metals.	K1
	CO4: Summarize the properties and applications of non-metallic materials.	K1
	CO5: Explain the testing of mechanical properties.	K1
ME3393: MANUFACTURING PROCESSES	**CO1:** Explain the principle of different metal casting processes.	K1
	CO2: Describe the various metal joining processes.	K1
	CO3: Illustrate the different bulk deformation processes.	K3
	CO4: Apply the various sheet metal forming process	K3
	CO5: Apply suitable molding technique for manufacturing of plastics components.	K3

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	ME3381 : COMPUTER AIDED MACHINE DRAWING	**CO1:** Prepare standard drawing layout for modelled assemblies with BoM.	K3
		CO2: Model orthogonal views of machine components.	K4
		CO3: Prepare standard drawing layout for modelled parts	K3
	ME3382 :MANUFACTURING TECHNOLOGY LABORATORY	**CO1:** Demonstrate the safety precautions exercised in the mechanical workshop and join two metals using GMAW.	K2
		CO2: The students able to make the work piece as per given shape and size using machining process such as rolling, drawing, turning, shaping, drilling and milling.	K6
		CO3: The students become make the gears using gear making machines and analyze the defects in the cast and machined components	K4
	GE3361: PROFESSIONAL DEVELOPMENT	**CO1:** Use MS Word to create quality documents, by structuring and organizing content for their day to day technical and academic requirements	K3
		CO2: Use MS EXCEL to perform data operations and analytics, record, retrieve data as per requirements and visualize data for ease of understanding	K3
		CO3: Use MS PowerPoint to create high quality academic presentations by including common tables, charts, graphs, interlinking other elements, and using media objects.	K3
SEMESTER - IV	**ME3491 : THEORY OF MACHINES**	**CO1:** Discuss the basics of mechanism.	K1
		CO2: Solve problems on gears and gear trains.	K3
		CO3: Examine friction in machine elements.	K3
		CO4: Calculate static and dynamic forces of mechanisms.	K3
		CO5: Calculate the balancing masses and their locations of reciprocating and rotating masses. Computing the frequency of free vibration, forced vibration and damping coefficient.	K3
		CO1: Apply thermodynamic concepts to different air standard cycles and solve problems.	K3

ME3451 : THERMAL ENGINEERING	**CO2:** To solve problems in steam nozzle and calculate critical pressure ratio.	K3	
	CO3: Explain the flow in steam turbines, draw velocity diagrams, flow in Gas turbines and solve problems.	K1	
	CO4: Explain the functioning and features of IC engine, components and auxiliaries	K1	
	CO5: Calculate the various performance parameters of IC engines	K3	
ME3492: HYDRAULICS AND PNEUMATICS	**CO1:** Apply the working principles of fluid power systems and hydraulic pumps.	K3	
	CO2: Apply the working principles of hydraulic actuators and control components.	K3	
	CO3: Design and develop hydraulic circuits and systems	K6	
	CO4: Apply the working principles of pneumatic circuits and power system and its components.	K3	
	CO5: Identify various troubles shooting methods in fluid power systems.	K1	
ME3493 : MANUFACTURING TECHNOLOGY	**CO1:** Apply the mechanism of metal removal process and to identify the factors involved in improving machinability.	K3	
	CO2: Describe the constructional and operational features of centre lathe and other special purpose lathes.	K1	
	CO3: Describe the constructional and operational features of reciprocating machine tools.	K1	
	CO4: Apply the constructional features and working principles of CNC machine tools.	K3	
	CO5: Demonstrate the Program CNC machine tools through planning, writing codes and setting up CNC machine tools to manufacture a given component.	K2	
CE3491: STRENGTH OF MATERIALS	**CO1:** Understand the concepts of stress and strain in simple and compound bars, the importance of principal stresses and principal planes.	K2	
	CO2: Understand the load transferring mechanism in beams and stress distribution due to shearing force and bending moment.	K2	

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		CO3: Apply basic equation of torsion in designing of shafts and helical springs	K3
		CO4: Calculate slope and deflection in beams using different methods.	K3
		CO5: Analyze thin and thick shells for applied pressures.	K4
	GE3451 :ENVIRONMENTAL SCIENCES AND SUSTAINABILITY	**CO1:** To recognize and understand the functions of environment, ecosystems and biodiversity and their conservation.	K1
		CO2: To identify the causes, effects of environmental pollution and natural disasters and contribute to the preventive measures in the society.	K1
		CO3: To identify and apply the understanding of renewable and non-renewable resources and contribute to the sustainable measures to preserve them for future generations.	K1
		CO4: To recognize the different goals of sustainable development and apply them for suitable technological advancement and societal development.	K1
		CO5: To demonstrate the knowledge of sustainability practices and identify green materials, energy cycles and the role of sustainable urbanization.	K2
	CE3481: STRENGTH OF MATERIALS AND FLUID MACHINERY LABORATORY	**CO1:** Determine the tensile, torsion and hardness properties of metals by testing	K5
		CO2: Determine the stiffness properties of helical and carriage spring	K5
		CO3: Apply the conservation laws to determine the coefficient of discharge of a venturimeter and finding the friction factor of given pipe	K3
		CO4: Apply the fluid static and momentum principles to determine the metacentric height and forces due to impact of jet	K3
		CO5: Determine the performance characteristics of turbine, rotodynamic pump and positive displacement pump.	K5
	ME3461: THERMAL ENGINEERING LABORATORY	**CO1:** Conduct tests to evaluate performance characteristics of IC engines	K5
		CO2: Conduct tests to evaluate the performance of refrigeration cycle	K5

		CO3: Conduct tests to evaluate Performance and Energy Balance on a Steam Generator.	K5
SEMESTER - V	**ME3591: DESIGN OF MACHINE ELEMENTS**	**CO1:** Explain the design machine members subjected to static and variable loads.	K1
		CO2: Apply the concepts design to shafts, key and couplings.	K3
		CO3: Apply the concepts of design to bolted, Knuckle, Cotter, riveted and welded joints.	K3
		CO4: Apply the concept of design helical, leaf springs, flywheels, connecting rods and crank shafts.	K3
		CO5: Apply the concepts of design and select sliding and rolling contact bearings, seals and gaskets.	K3
	ME3592 : METROLOGY AND MEASUREMENTS	**CO1:** Discuss the concepts of measurements to apply in various metrological instruments.	K1
		CO2: Apply the principle and applications of linear and angular measuring instruments, assembly and transmission elements.	K3
		CO3: Apply the tolerance symbols and tolerance analysis for industrial applications.	K3
		CO4: Apply the principles and methods of form and surface metrology.	K3
		CO5: Apply the advances in measurements for quality control in manufacturing Industries.	K3
	ME3581 : METROLOGY AND DYNAMICS LABORATORY	**CO1:** The students able to measure the gear tooth dimensions, angle using sine bar, straightness.	K6
		CO2: Determine mass moment of inertia of mechanical element, governor effort and range of sensitivity.	K5
		CO3: Determine the natural frequency and damping coefficient, critical speeds of shafts	K5
	CME396: PROCESS PLANNING AND COST ESTIMATION	**CO1:** Discuss select the process, equipment and tools for various industrial products.	K1
		CO2: Explain the prepare process planning activity chart.	K1

	CO3: Explain the concept of cost estimation.	K1
	CO4: Compute the job order cost for different type of shop floor.	K6
	CO5: Calculate the machining time for various machining operations.	K3
CME387: NON-TRADITIONAL MACHINING PROCESSES	**CO1:** Formulate different types of non-traditional machining processes and evaluate mechanical energy based non-traditional machining processes.	K5
	CO2: Illustrate chemical and electro chemical energy based processes.	K3
	CO3: Evaluate thermo-electric energy based processes.	K5
	CO4: Interpret nano finishing processes.	K5
	CO5: Analyse hybrid non-traditional machining processes and differentiate non- traditional machining processes.	K4
CME380 :AUTOMOBILE ENGINEERING	**CO1:** Recognize the various parts of the automobile and their functions and materials.	K1
	CO2: Discuss the engine auxiliary systems and engine emission control.	K1
	CO3: Distinguish the working of different types of transmission systems.	K2
	CO4: Explain the Steering, Brakes and Suspension Systems	K1
	CO5: Predict possible alternate sources of energy for IC Engines.	K3
ME3691: HEAT AND MASS TRANSFER	**CO1:** Apply heat conduction equations to different surface configurations under steady state and transient conditions and solve problems.	K3
	CO2: Apply free and forced convective heat transfer correlations to internal and external flows through/over various surface configurations and solve problems.	K3

		CO3: Explain the phenomena of boiling and condensation, apply LMTD and NTU methods of thermal analysis to different types of heat exchanger configurations and solve problems.	K1
		CO4: Explain basic laws for Radiation and apply these principles to radiative heat transfer between different types of surfaces to solve problems.	K1
		CO5: Apply diffusive and convective mass transfer equations and correlations to solve problems for different applications.	K3
	ME3681 : CAD/CAM LABORATORY	**CO1:** Design experience in handling 2D drafting and 3D modelling software systems	K6
		CO2: Design 3 Dimensional geometric model of parts, sub- assemblies, assemblies and export it to drawing	K6
		CO3: Demonstrate manual part programming and simulate the CNC program and Generate part programming using G and M code through CAM software.	K2
	ME3682: HEAT TRANSFER LABORATORY	**CO1:** Conduct experiment on Predict the thermal conductivity of solids and liquids	K3
		CO2: Conduct experiment on Estimate the heat transfer coefficient values of various fluids.	K2
		CO3: Conduct experiment on Test the performance of tubes in tube heat exchangers	K3
	CME395: CASTING AND WELDING PROCESSES	**CO1:** Explain the ferrous casting metallurgy and its applications	K1
		CO2: Explain the non ferrous casting metallurgy and its applications.	K1
		CO3: Explain the ferrous welding metallurgy and its applications.	K1
		CO4: Explain the welding metallurgy of alloy steels and non ferrous metals and its applications.	K1
		CO5: Identify the causes and remedies of various welding defects; apply welding standards and codes.	K1
SEMESTER - VI	**CME385: REFRIGERATION AND AIR**	**CO1:** Explain the basic concepts of Refrigeration	K1

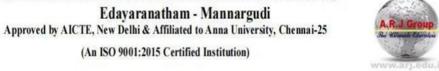|			
	CONDITIONING	**CO2:** Explain the Vapor compression Refrigeration systems and to solve problems	K1
		CO3: Discuss the various types of Refrigeration systems	K1
		CO4: Calculate the Psychrometric properties and its use in psychrometric processes	K3
		CO5: Explain the concepts of Air conditioning and to solve problems	K1
	CME366: EQUIPMENT FOR POLLUTION CONTROL	**CO1:** Explain the different types of pollution, their sources and effects.	K1
		CO2: Discuss the pollution control regulations and standards	K1
		CO3: Design equipment for pollution control	K6
		CO4: Discuss different methods of pollution control from various sources in air, water and soil	K1
		CO5: Discuss the Conduct performance assessment of pollution control equipment.	K1
	CME350: ENVIRONMENT SUSTAINABILITY AND IMPACT ASSESSMENT	**CO1:** Explain the concepts of Environment Sustainability and trained to make decision related to Environment.	K1
		CO2: Make decision that has an effect on our environment	K5
		CO3: Evaluate the basics of environmental policy, planning and various legislation Get valuable information for exploring decisions in each life stage of materials, buildings, services and infrastructure.	K5
		CO4: Explain the Life cycle assessment of Environmental sustainability.	K1
		CO5: Explain sustainable urban economic development.	K1
	OCS351: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING FUNDAMENTALS	**CO1:** Understand the foundations of AI and the structure of Intelligent Agents	K2
		CO2: Use appropriate search algorithms for any AI problem	K3
		CO3: Study of learning methods	K1
		CO4: Solving problem using Supervised learning	K6
		CO5: Solving problem using Unsupervised learning	K6

SEMESTER - VII	**ME3791: MECHATRONICS AND IoT**	**CO1:** Explain Select suitable sensors and actuators to develop mechatronics systems	K1
		CO2: Discuss Devise proper signal conditioning circuit for mechatronics systems, and also able to implement PLC as a controller for an automated system.	K1
		CO3: Elucidate the fundamentals ofIot and Embedded Systems	K5
		CO4: Discuss Control I/O devices through Arduino and Raspberry Pi.	K1
		CO5: Design and develop an apt mechatronics/IoT based system for the given real-time application.	K6
	E3792: COMPUTER INTEGRATED MANUFACTURING	**CO1:** Discuss the basics of computer aided engineering.	K1
		CO2: Choose appropriate automotive tools and material handling systems.	K1
		CO3: Discuss the overview of group technology, FMS and automation identification methods.	K1
		CO4: Design using computer aided process planning for manufacturing of various components	K6
		CO5: Acquire knowledge in computer process control techniques.	K6
	GE3791: HUMAN VALUES AND ETHICS	CO1 : Identify the importance of democratic, secular and scientific values in harmonious functioning of social life	K1
		CO2: Practice democratic and scientific values in both their personal and professional life.	K5
		CO3: Find rational solutions to social problems.	K4
		CO4 : Behave in an ethical manner in society	K3
		CO5: Practice critical thinking and the pursuit of truth.	K5

		CO1: Explain basic concepts of management; approaches to management; contributors to management studies; various forms of business organization and trade unions function in professional organizations.	K1
	GE3792: INDUSTRIAL MANAGEMENT	CO2: Discuss the planning; organizing and staffing functions of management in professional organization.	K1
		CO3: Apply the leading; controlling and decision making functions of management in professional organization.	K3
		CO4: Discuss the organizational theory in professional organization.	K1
		CO5: Apply principles of productivity and modern concepts in management in professional organization.	K3
	ME3781: MECHATRONICS AND IoT LABORATORY	CO1: Demonstrate the functioning of mechatronics systems with various pneumatic, hydraulic and electrical systems.	K2
		CO2: Demonstrate the microcontroller and PLC as controllers in automation systems by executing proper interfacing of I/O devices and programming	K2
		CO3: Demonstrate the sensing and actuation of mechatronics elements using IoT	K2
	OCS353: DATA SCIENCE FUNDAMENTALS	CO1: Gain knowledge on data science process.	K2
		CO2: Perform data manipulation functions using Numpy and Pandas.	K3
		CO3 Understand different types of machine learning approaches.	K2
		CO4: Perform data visualization using tools.	K3
		CO5: Handle large volumes of data in practical scenarios.	K3
	OML351 :INTRODUCTION	CO1: Realize the importance of NDT in various engineering fields.	K4

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	TO NON-DESTRUCTIVE TESTING	**CO2:** Have a basic knowledge of surface NDE techniques which enables to carry out various inspection in accordance with the established procedures.	K1
		CO3: Calibrate the instrument and inspect for in-service damage in the components by means of Eddy current testing as well as Thermography testing.	K5
		CO4: Differentiate various techniques of UT and AET and select appropriate NDT methods for better evaluation.	K2
		CO5: Interpret the results of Radiography testing and also have the ability to analyse the influence of various parameters on the testing.	K4
	OIM353: PRODUCTION PLANNING AND CONTROL	**CO1:**The students can able to prepare production planning and control act work study	K6
		CO2: The students can able to prepare product planning	K6
		CO3: The students can able to prepare production scheduling,	K6
		CO4: The students can able to prepare Inventory Control.	K6
		CO5: They can plan manufacturing requirements manufacturing requirement Planning (MRP II) and Enterprise Resource Planning (ERP).	K6
SEMESTER - VIII	**ME3811: PROJECT WORK**	**CO1:** Take up any challenging practical problems and find solution by formulating proper methodology.	K6