



DEPARTMENT OF MECHANICAL ENGINEERING

2018 SCHEME

SUBJECT: TRANSFORM CALCULUS, FOURIER SERIES AND NUMERICAL TECHNIQUES

SUBJECT CODE: 18MAT31

CO#	Course Outcomes
CO : 1	Use Laplace transform and inverse Laplace transform in solving differential/ integral equation arising in network analysis, control systems and other fields of engineering
CO : 2	Demonstrate Fourier series to study the behaviour of periodic functions and their applications in system communications, digital signal processing and field theory
CO : 3	Make use of Fourier transform and Z-transform to illustrate discrete/continuous function arising in wave and heat propagation, signals and systems.
CO : 4	Solve first and second order ordinary differential equations arising in engineering problems using single step and multistep numerical methods.
CO : 5	Determine the extremals of functionals using calculus of variations and solve problems arising in dynamics of rigid bodies and vibrational analysis.

SUBJECT: MECHANICS OF MATERIALS

SUBJECT CODE: 18ME32

CO#	Course Outcomes
CO : 1	Understand simple, compound, thermal stresses and strains their relations and strain energy.
CO : 2	Analyse structural members for stresses, strains and deformations..
CO : 3	Analyse the structural members subjected to bending and shear loads.
CO : 4	Analyse shafts subjected to twisting loads.
CO : 5	Analyse the short columns for stability

SUBJECT: BAISC THERMODYNAMICS**SUBJECT CODE: 18ME33**

CO#	Course Outcomes
CO : 1	Explain fundamentals of thermodynamics and evaluate energy interactions across the boundary of thermodynamic systems.
CO : 2	Evaluate the feasibility of cyclic and non-cyclic processes using 2nd law of thermodynamics.
CO : 3	Apply the knowledge of entropy, reversibility and irreversibility to solve numerical problems and apply 1st law of thermodynamics to closed and open systems and determine quantity of energy transfers and change in properties
CO : 4	Interpret the behavior of pure substances and its application in practical problems
CO : 5	Recognize differences between ideal and real gases and evaluate thermodynamic properties of ideal and real gas mixtures using various relations.

SUBJECT: MATERIAL SCIENCE**SUBJECT CODE: 18ME34**

CO#	Course Outcomes
CO : 1	Understand the mechanical properties of metals and their alloys various materials available and material selection procedures.
CO : 2	Analyze the various modes of failure and understand the microstructures of ferrous and nonferrous materials.
CO : 3	Describe the processes of heat treatment of various alloys.
CO : 4	Acquire the Knowledge of composite materials and their production process as well as applications.
CO : 5	Understand the properties and potentialities of various materials available and material selection procedures.

SUBJECT: METAL CUTTING AND FORMING**SUBJECT CODE: 18ME35A/45A**

CO#	Course Outcomes
CO : 1	Explain the construction & specification of various machine tools.
CO : 2	Discuss different cutting tool materials, tool nomenclature & surface finish.
CO : 3	Apply mechanics of machining process to evaluate machining time.
CO : 4	Analyze tool wear mechanisms and equations to enhance tool life and minimize machining cost
CO : 5	Understand the concepts of different metal forming processes.
CO : 6	Apply the concepts of design of sheet metal dies to design different dies for simple sheet metal components.

CO#	Course Outcomes
CO : 1	Describe the casting process and prepare different types of cast products.
CO : 2	Acquire knowledge on Pattern, Core, Gating, Riser system and to use Jolt, Squeeze, Sand Slinger moulding machines.
CO : 3	Compare the Gas fired pit, Resistance, Coreless, Electrical and Cupola Metal Furnaces
CO : 4	Compare the Gravity, Pressure die, Centrifugal, Squeeze, slush and Continuous Metal mold castings.
CO : 5	Understand the Solidification process and Casting of Non-Ferrous Metals
CO: 6	Describe the Metal Arc, TIG, MIG, Submerged and Atomic Hydrogen Welding processes etc. used in manufacturing. CO7: Describe methods for the quality assurance of components made of casting and joining process
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CO#	Course Outcomes
CO : 1	Identify the national and international standards pertaining to machine drawing.
CO : 2	Understand the importance of the linking functional and visualization aspects in the preparation of the part drawings
CO : 3	Apply limits and tolerances to assemblies and choose appropriate fits for given assemblies.
CO : 4	Interpret the Machining and surface finish symbols on the component drawings.
CO : 5	Preparation of the part or assembly drawings as per the conventions.

CO#	Course Outcomes
CO : 1	Understand the objectives of metrology, methods of measurement, standards of measurement & various measurement parameters.
CO : 2	Explain tolerance, limits of size, fits, geometric and position tolerances, gauges and their design
CO : 3	Understand the working principle of different types of comparators. CO3: Describe measurement of major & minor diameter, pitch, angle and effective diameter of screw threads
CO : 4	Explain measurement systems, transducers, intermediate modifying devices and terminating devices
CO : 5	Describe functioning of force, torque, pressure, strain and temperature measuring devices.

SUBJECT: MATERIAL TESTING LAB**SUBJECT CODE: 18ME37A/47A**

CO#	Course Outcomes
CO : 1	Acquire experimentation skills in the field of material testing
CO : 2	Develop theoretical understanding of the mechanical properties of materials by performing experiments.
CO : 3	Apply the knowledge to analyse a material failure and determine the failure inducing agent/s.
CO : 4	Apply the knowledge of testing methods in related areas..
CO : 5	Understand how to improve structure/behaviour of materials for various industrial applications

SUBJECT: MECHANICAL MEASUREMENTS AND METROLOGY LAB SUBJECT CODE: 18ME37B/47B

CO#	Course Outcomes
CO : 1	Understand Calibration of pressure gauge, thermocouple, LVDT, load cell, micrometre.
CO : 2	Apply concepts of Measurement of angle using Sine Centre/ Sine Bar/ Bevel Protractor, alignment using Autocollimator/ Roller set
CO : 3	Demonstrate measurements using Optical Projector/Tool maker microscope, Optical flats
CO : 4	Analyse tool forces using Lathe/Drill tool dynamometer.
CO : 5	Analyse Screw thread parameters using 2-Wire or 3-Wire method, gear tooth profile using gear tooth Vernier/Gear tooth micrometre
CO : 3	Understand the concepts of measurement of surface roughness.

SUBJECT: WORKSHOP AND MACHINE SHOP PRACTICE**SUBJECT CODE: 18ME38A/48A**

CO#	Course Outcomes
CO : 1	To read working drawings, understand operational symbols and execute machining operations.
CO : 2	Prepare fitting models according to drawings using hand tools- V-block, marking gauge, files, hack saw, drills etc
CO : 3	Understand integral parts of lathe, shaping and milling machines and various accessories and attachments used.
CO : 4	Select cutting parameters like cutting speed, feed, depth of cut, and tooling for various machining operations.
CO : 5	Perform cylindrical turning operations such as plain turning, taper turning, step turning, thread Cutting, facing, knurling, internal thread cutting, eccentric turning and estimate cutting time.
CO : 6	Perform machining operations such as plain shaping, inclined shaping, keyway cutting, Indexing and Gear cutting and estimate cutting time. Conduct

SUBJECT: FOUNDRY, FORGING AND WELDING LAB**SUBJECT CODE: 18MEL38B/48B**

CO#	Course Outcomes
CO : 1	Demonstrate various skills in preparation of molding sand for conducting tensile, shear and compression tests using Universal sand testing machine
CO : 2	Demonstrate skills in determining permeability, clay content and Grain Fineness Number of base sands.
CO : 3	Demonstrate skills in preparation of forging models involving upsetting, drawing and bending operations

SUBJECT: CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND CYBER LAW (CPC) SUBJECT CODE: 18CPC39/49

CO#	Course Outcomes
CO : 1	Have constitutional knowledge and legal literacy.
CO : 2	Understand Engineering and Professional ethics and responsibilities of Engineers. □
CO : 3	Understand the the cybercrimes and cyber laws for cyber safety measures. Question

**SUBJECT: COMPLEX ANALYSIS, PROBABILITY AND STATISTICAL METHODS
SUBJECT CODE: 18MAT41**

CO#	Course Outcomes
CO : 1	Use the concepts of analytic function and complex potentials to solve the problems arising in electromagnetic field theory.
CO : 2	Utilize conformal transformation and complex integral arising in aerofoil theory, fluid flow visualization and image processing.
CO : 3	Apply discrete and continuous probability distributions in analyzing the probability models arising in engineering field
CO : 4	Make use of the correlation and regression analysis to fit a suitable mathematical model for the statistical data.
CO : 5	Construct joint probability distributions and demonstrate the validity of testing the hypothesis.

SUBJECT: APPLIED THERMODYNAMICS**SUBJECT CODE: 18ME42**

CO#	Course Outcomes
CO : 1	Apply thermodynamic concepts to analyze the performance of gas power cycles.
CO : 2	Apply thermodynamic concepts to analyze the performance of vapour power cycles.
CO : 3	Understand combustion of fuels and performance of I C engines.
CO : 4	Understand the principles and applications of refrigeration systems.

CO : 5	Apply Thermodynamic concepts to determine performance parameters of refrigeration and airconditioning systems.
CO : 6	Understand the working principle of Air compressors and Steam nozzles, applications, relevance of air and identify methods for performance improvement

SUBJECT: FLUID MECHANICS

SUBJECT CODE: 18ME43

CO#	Course Outcomes
CO : 1	Identify and calculate the key fluid properties used in the analysis of fluid behavior.
CO : 2	Explain the principles of pressure, buoyancy and floatation
CO : 3	Apply the knowledge of fluid statics, kinematics and dynamics while addressing problems of mechanical and chemical engineering.
CO : 4	Describe the principles of fluid kinematics and dynamics.
CO : 5	Explain the concept of boundary layer in fluid flow and apply dimensional analysis to form dimensionless numbers in terms of input output variables.
CO : 6	Illustrate and explain the basic concept of compressible flow and CFD

SUBJECT: KINEMATICS OF MACHINES

SUBJECT CODE: 18ME44

CO#	Course Outcomes
CO : 1	Knowledge of mechanisms and their motion.
CO : 2	Understand the inversions of four bar mechanisms.
CO : 3	Analyse the velocity, acceleration of links and joints of mechanisms.
CO : 4	Analysis of cam follower motion for the motion specifications.
CO : 5	Understand the working of the spur gears.
CO : 6	Analyse the gear trains speed ratio and torque.

SUBJECT: METAL CUTTING AND FORMING

SUBJECT CODE: 18ME35A/45A

CO#	Course Outcomes
CO : 1	Explain the construction & specification of various machine tools.
CO : 2	Discuss different cutting tool materials, tool nomenclature & surface finish.
CO : 3	Apply mechanics of machining process to evaluate machining time.
CO : 4	Analyze tool wear mechanisms and equations to enhance tool life and minimize machining cost.

CO : 5	Understand the concepts of different metal forming processes
CO : 6	Apply the concepts of design of sheet metal dies to design different dies for simple sheet metal components.

SUBJECT: MANAGEMENT AND ECONOMICS

SUBJECT CODE: 18ME51

CO#	Course Outcomes
CO : 1	Understand needs, functions, roles, scope and evolution of Management
CO : 2	Understand importance, purpose of Planning and hierarchy of planning and also Analyse its types.
CO : 3	Discuss Decision making, Organizing, Staffing, Directing and Controlling.
CO : 4	Select the best economic model from various available alternatives.
CO : 5	Understand various interest rate methods and implement the suitable one , Estimate various depreciation values of commodities & Prepare the project reports effectively.

SUBJECT: DESIGN OF MACHINE ELEMENTS- I

SUBJECT CODE: 18ME52

CO#	Course Outcomes
CO : 1	Apply the concepts of selection of materials for given mechanical components.
CO : 2	List the functions and uses of machine elements used in mechanical systems.
CO : 3	Apply codes and standards in the design of machine elements and select an element based on the Manufacturer's catalogue.
CO : 4	Analyse the performance and failure modes of mechanical components subjected to combined loading and fatigue loading using the concepts of theories of failure.
CO : 5	Demonstrate the application of engineering design tools to the design of machine components like shafts, couplings, power screws, fasteners, welded and riveted joints.

SUBJECT: DYNAMICS OF MACHINES**SUBJECT CODE: 18ME53**

CO#	Course Outcomes
CO : 1	Analyse the mechanisms for static and dynamic equilibrium.
CO : 2	Carry out the balancing of rotating and reciprocating masses
CO : 3	Analyse different types of governors used in real life situation.
CO : 4	Analyse the gyroscopic effects on disks, airplanes, stability of ships, two and four wheelers
CO : 5	Understand the free and forced vibration phenomenon & Determine the natural frequency, force and motion transmitted in vibrating systems.

SUBJECT: TURBO MACHINES**SUBJECT CODE: 18ME54**

CO#	Course Outcomes
CO : 1	Model studies and thermodynamics analysis of turbo machines.
CO : 2	Analyse the energy transfer in Turbo machine with degree of reaction and utilisation factor.
CO : 3	Classify, analyse and understand various type of steam turbine.
CO : 4	Classify, analyse and understand various type of hydraulic turbine.
CO : 5	Understand the concept of radial power absorbing machine and the problems involved during its operation.

SUBJECT: FLUID POWER ENGINEERING**SUBJECT CODE: 18ME55**

CO#	Course Outcomes
CO : 1	Identify and analyse the functional requirements of a fluid power transmission system for a given application.
CO : 2	Visualize how a hydraulic/pneumatic circuit will work to accomplish the function.
CO : 3	Design an appropriate hydraulic or pneumatic circuit or combination circuit like electro-hydraulics, electro- pneumatics for a given application.
CO : 4	Select and size the different components of the circuit.
CO : 5	Develop a comprehensive circuit diagram by integrating the components selected for the given application.

SUBJECT: OPERATIONS MANAGEMENT**SUBJECT CODE: 18ME56**

CO#	Course Outcomes
CO : 1	Explain the concept and scope of operations management in a business context
CO : 2	Recognize the role of Operations management among various business functions and its role in the organizations' strategic planning and gaining competitive advantage.
CO : 3	Analyze the appropriateness and applicability of a range of operations management systems/models in decision making.
CO : 4	Assess a range of strategies for improving the efficiency and effectiveness of organizational operations.
CO : 5	Evaluate a selection of frameworks used in the design and delivery of operations

SUBJECT: FLUID MECHANICS AND MACHINES LAB**SUBJECT CODE: 18MEL57**

CO#	Course Outcomes
CO : 1	Perform experiments to determine the coefficient of discharge of flow measuring devices.
CO : 2	Conduct experiments on hydraulic turbines and pumps to draw characteristics.
CO : 3	Test basic performance parameters of hydraulic turbines and pumps and execute the knowledge in real life situations.
CO : 4	Determine the energy flow pattern through the hydraulic turbines and pumps.
CO : 5	Exhibit his competency towards preventive maintenance of hydraulic machines.

SUBJECT: ENERGY CONVERSION LABORATORY**SUBJECT CODE: 18MEL58**

CO#	Course Outcomes
CO : 1	Perform experiments to determine the properties of fuels and oils.
CO : 2	Conduct experiments on engines and draw characteristics.
CO : 3	Test basic performance parameters of I.C. Engine and implement the knowledge in industry.
CO : 4	Identify exhaust emission, factors affecting them and exhibit his competency towards preventive maintenance of IC engines.
CO : 5	Evaluate the performance of the thermal engines.

SUBJECT: ENVIRONMENTAL STUDIES**SUBJECT CODE: 18CIV59**

CO#	Course Outcomes
CO : 1	Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,
CO : 2	Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment.
CO : 3	Demonstrate ecology knowledge of a complex relationship between biotic and abiotic Components.
CO : 4	Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues.

SUBJECT: DESIGN OF MACHINE ELEMENTS- I**SUBJECT CODE: 18ME52**

CO#	Course Outcomes
CO : 1	
CO : 2	
CO : 3	
CO : 4	
CO : 5	

SUBJECT: FINITE ELEMENT METHODS**SUBJECT CODE: 18ME61**

CO#	Course Outcomes
CO : 1	Identify the application and characteristics of FEA elements such as bars, beams, plane and isoparametric elements.
CO : 2	Develop element characteristic equation and generation of global equation.
CO : 3	Formulate and solve Axi-symmetric and heat transfer problems.
CO : 4	Apply suitable boundary conditions to a global equation for bars, trusses, beams, circular shafts, heat transfer, fluid flow, axi-symmetric and dynamic problems

SUBJECT: DESIGN OF MACHINE ELEMENTS- II**SUBJECT CODE: 18ME62**

CO#	Course Outcomes
CO : 1	Apply design principles for the design of mechanical systems involving springs, belts, pulleys, and wire ropes.
CO : 2	Design different types of gears and simple gear boxes for relevant applications.
CO : 3	Understand the design principles of brakes and clutches.
CO : 4	Apply design concepts of hydrodynamic bearings for different applications and select Anti friction bearings for different applications using the manufacturers, catalogue.
CO : 5	Apply engineering design tools to product design.

SUBJECT: HEAT TRANSFER**SUBJECT CODE: 18ME63**

CO#	Course Outcomes
CO : 1	Understand the modes of heat transfer and apply the basic laws to formulate engineering systems.
CO : 2	Understand and apply the basic laws of heat transfer to extended surface, composite material and unsteady state heat transfer problems.
CO : 3	Analyze heat conduction through numerical methods and apply the fundamental principle to solve radiation heat transfer problems.
CO : 4	Analyze heat transfer due to free and forced convective heat transfer.
CO : 5	Understand the design and performance analysis of heat exchangers and their practical applications, Condensation and Boiling phenomena.

SUBJECT: NON-TRADITIONAL MACHINING(PE-1)

SUBJECT CODE: 18ME641

CO#	Course Outcomes
CO : 1	They learn and understand, explain the need- history for the development of newer/ non-traditional machining process.
CO : 2	They will be able to estimate the material removal rate and cutting force, in an industrially useful manner, for practical machining processes.
CO : 3	To analyze the concept, mechanism, parameters associated with the processes.
CO : 4	To demonstrate the operational principles, advantages, applications, limitations of the various non-traditional machining processes.
CO : 5	Identify different energy sources like fluid motion, electric current, high speed electrons, high energy radiation, etc.

SUBJECT: NON CONVENTIONAL ENERGY SOURCES

SUBJECT CODE: 18ME651

CO#	Course Outcomes
CO : 1	Introduction: Energy source, India's production and reserves of commercial energy sources, need for non-conventional energy sources, energy alternatives, solar, thermal, photovoltaic. Water power, wind biomass, ocean temperature difference, tidal and waves
CO : 2	Analyse of Solar Radiation Measurement of Solar Radiation Solar Radiation Geometry & Flux on a Tilted Surface Solar Thermal Conversion Analyse for Testing of two stroke and four stroke SI and CI engines for performance .
CO : 3	Examine Vapour Power Cycles: Carnot vapour power cycles, drawbacks as a reference cycle, Simple Rankine cycle, description, T- S diagram, analysis for performance
CO : 4	Analysis Performance of Liquid Flat Plate Collectors & Photovoltaic Conversion Wind Energy
CO : 5	Analyse the Energy from Bio Mass, & Hydrogen Energy Storage & Transportation Methods

SUBJECT: THEORY OF ELASTICITY (PE-1)

SUBJECT CODE: 18ME643

CO#	Course Outcomes
CO : 1	Understand the Basic field equations of linear elastic solids, force, stress, strain and equilibrium in solids.
CO : 2	Analyse the 2D structural elements, beams, cylinders.
CO : 3	Use analytical techniques to predict deformation, internal force and failure of simple solids and structural components.
CO : 4	Analyse the axisymmetric structural elements.
CO : 5	Analyse the structural members subjected to torsion

SUBJECT: SUBJECT – VIBRATIONS AND NOISE ENGINEERING(PE-1)**SUBJECT CODE: 18ME644**

CO#	Course Outcomes
CO : 1	Characterize the single and multi-degrees of freedom systems subjected to free and forced vibrations with and without damping.
CO : 2	Apply the method of vibration measurements and its controlling.
CO : 3	Determine vibratory responses of SDOF and MDOF systems to harmonic, periodic and non-periodic excitation.
CO : 4	Analyze the mathematical model of a linear vibratory system to determine its response.
CO : 5	Obtain linear mathematical models of real life engineering systems.

SUBJECT: COMPOSITE MATERIALS TECHNOLOGY

SUBJECT CODE: 18ME645

CO#	Course Outcomes
CO : 1	Use different types of manufacturing processes in the preparation of composite materials
CO : 2	Analyze the problems on macro mechanical behavior of composites
CO : 3	Analyze the problems on micromechanical behavior of Composites
CO : 4	Determine stresses and strains relation in composites materials.
CO : 5	Understand and effective use of properties in design of composite structures

SUBJECT: CONTROL ENGINEERING**SUBJECT CODE: 18ME71**

CO#	Course Outcomes
CO : 1	Identify the type of control and control actions.
CO : 2	Develop the mathematical model of the physical systems.
CO : 3	Estimate the response and error in response of first and second order systems subjected standard input signals.
CO : 4	Represent the complex physical system using block diagram and signal flow graph and obtain transfer function.
CO : 5	Analyse a linear feedback control system for stability using Hurwitz criterion, Routh's criterion and root Locus technique in complex domain.

SUBJECT: COMPUTER AIDED DESIGN MANUFACTURING**SUBJECT CODE: 18ME72**

CO#	Course Outcomes
CO : 1	Define Automation, CIM, CAD, CAM and explain the differences between these concepts. Solve simple problems of transformations of entities on computer screen
CO : 2	Explain the basics of automated manufacturing industries through mathematical models and analyze different types of automated flow lines.
CO : 3	Analyse the automated flow line to reduce time and enhance productivity.
CO : 4	Explain the use of different computer applications in manufacturing, and able to prepare part programs for simple jobs on CNC machine tools and robot programming.
CO : 5	Visualize and appreciate the modern trends in Manufacturing like additive manufacturing, Industry 4.0 and applications of Internet of Things leading to Smart Manufacturing.

SUBJECT: TOTAL QUALITY MANAGEMENT(PE-2)**SUBJECT CODE: 10ME734**

CO#	Course Outcomes
CO : 1	Know business excellence models be able to assess organization's performance making reference to their criteria
CO : 2	Know principles of total quality management and importance of their implementation
CO : 3	Be able to use quality management tools and problem solving techniques

CO : 4	Know prerequisites of evolution of total quality management and significance of quality gurus' works to the management of modern organizations.
CO : 5	Generate knowledge and skills of students to use models and quality management methodology

**SUBJECT: ADDITIVE MANUFACTURING(PE-3)
18ME741**

SUBJECT CODE:

CO#	Course Outcomes
CO : 1	Demonstrate the knowledge of the broad range of AM processes, devices, capabilities and materials that are available.
CO : 2	Demonstrate the knowledge of the broad range of AM processes, devices, capabilities and materials that are available.
CO : 3	Understand the various software tools, processes and techniques that enable advanced/additive manufacturing.
CO : 4	Apply the concepts of additive manufacturing to design and create components that satisfy product development/prototyping requirements, using advanced/additive manufacturing devices and processes.
CO : 5	Understand characterization techniques in additive manufacturing.

SUBJECT: DESIGN LAB

SUBJECT CODE: 18MEL77

CO#	Course Outcomes
CO : 1	Compute the natural frequency of the free and forced vibration of single degree freedom systems, critical speed of shafts.
CO : 2	Carry out balancing of rotating masses.
CO : 3	Analyse the governor characteristics.
CO : 4	Determine stresses in disk, beams, plates and hook using photo elastic bench.
CO : 5	Determination of Pressure distribution in Journal bearing

SUBJECT: Computer Integrated Manufacturing

SUBJECT CODE: 18MEL76

CO#	Course Outcomes
CO : 1	Understand students to the techniques of CNC programming and cutting tool path generation
CO : 2	Enumerate the students on the usage of CAM packages.
CO : 3	Understand the importance of automation in industries through exposure to FMS, Robotics, and Hydraulics and Pneumatics.
CO : 4	Analyze the sequence of part programming
CO : 5	Application of CNC Part programming

SUBJECT: ENERGY ENGINEERING

SUBJECT CODE: 18ME81

CO#	Course Outcomes
CO : 1	Understand the construction and working of steam generators and their accessories.
CO : 2	Identify renewable energy sources and their utilization.
CO : 3	Understand principles of energy conversion from alternate sources including wind, geothermal, ocean, biomass, nuclear, hydel and tidal.
CO : 4	Enumerate the principles of renewable energy conversion systems.
CO : 5	Analyze the application of renewable energy sources.

SUBJECT: AUTOMOBILE ENGINEERING (P E-4)

SUBJECT CODE: 18ME824

CO#	Course Outcomes
CO : 1	To identify the different parts of an automobile and it's working
CO : 2	To understand the working of transmission and braking systems
CO : 3	To comprehend the working of steering and suspension systems
CO : 4	To learn various types of fuels and injection systems
CO : 5	To know the cause of automobile emissions, its effects on environment and methods to reduce the emissions.