METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

Department of Civil Engineering

Course Outcomes

AY: 2018-19 Sem: III

Course Code	Course Name	Course Outcomes	Taxonomy
BS301MT	Engineering Mathematics - III	**Find** solutions of first order and second order partial differential equations.	Remembering
		Apply Fourier series to find solutions of partial differential equations.	Applying
		Solve complex and real integrals using residue theorem.	Applying
		Analyze a given function in the form of Fourier series	Analyzing
		Determine the analyticity of a complex functions and expand functions as Taylor and Laurent series.	Evaluating
		Classify types of partial differential equations and find their solution.	Evaluating
ES321EE	Electrical Technology	**Analyze** and solve problems of electrical circuits using network laws	Analyzing
		Construct the single-phase transformer and identify the losses of single-phase Transformer	Applying
		Illustrate the different testing methods of transformer to analyse the system Transformer Performance	Understanding
		Develop the circle diagram by using No-Load and Blocked Rotor Tests	Applying
		Explain the speed control of induction motors	Understanding
		Define the three phase circuits with Star / Delta connected balanced and unbalanced Loads	Remembering
ES321ME	Mechanical Technology	**Illustrate** functioning of various Earth moving, excavating equipments, hoists, cranes and various conveyor systems	Understanding
		Apply suitable Equipment for a given function for various types of operating conditions like bucket type , size, boom length, loads, materials, Terrain etc.	Applying
		Design conveyor system with optimum system for the given constraints.	Creating

Scanned by CamScanner

		Explain the functioning of various components of concrete and aggregate making equipment and as well have exposure to various pneumatic tools, crushers, compactors, screens, vibrators etc.	Understanding
		Illustrate functioning of various Earth moving, excavating equipments, hoists, cranes and various conveyor systems	Understanding
		Choose suitable Equipment for a given function for various types of operating conditions like bucket type , size, boom length, loads, materials, Terrain etc.	Applying
PC301CE	Engineering Geology	**Explain** the process of weathering, formation of rocks, soil and concept of geomorphology and how they relate with each other	Understanding
		Identify the features of rocks like Igneous, sedimentary and metamorphic, geological structures like faults, folds, joints, In construction field to determine the problems that they may arise because of their presence.	Applying
		To make use of site investigation techniques and scientific exploration methods in identification of geological features like ground water, properties and behaviour of rocks, soil types.	Applying
		Examine rocks for their suitability in various construction applications.	Analyzing
		Identify and determine the geological problems in dams, reservoirs and tunnels.	Applying
		Explain the geological causes of earthquakes, tsunamis and landslides.	Understanding
PC302CE	Strength of Materials - I	**Explain** the mechanical properties, elastic theories of behavior, stress-strain relationships of solid deformable bodies under various loadings (such as axial, bending, shear, combinations and multi-axial bending).	Understand
		Apply the key concepts, theories and mathematical fundamentals to derive mathematical relations involved in evaluation of stresses and strains in a solid material under various load types mentioned above.	Apply
		Make use of mathematically formulated stress-strain relations based on elastic theories in solid mechanics to solve for the stresses, strains and associated quantities in solid bodies subjected to various loadings.	Apply
		Examine the solid material behaviour subject to various load types loads by constructing and analyzing diagrams such as Stress-Strain diagram, Mohr's Circle, SFD, BMD, bending & shear stress distributions, etc.	Analyze
		Evaluate two or more geometries and/or materials to choose the more safe and economical design of a structural member.	Evaluate
		Design simple structural members to be able to safely resist axial, bending, shear and combined stresses within the imposed factors of safety.	Create

Scanned by CamScanner

PC303CE	Fluid Mechanics - I	**Explain** the fluid properties and pressure measurement by using different manometers and Compressible flow. (like Specific weight, specific volume, specific mass,gravity, viscosity, bulk modulus)	Understanding
		Evaluate the pressure measurement by using different types of manometers	Evaluate
		Compare different types of flow patterns and different types of fluid flows	Analyzing
		Apply basic physics fundamentals and obtain the pressure drop in flow systems.	Applying
		Evaluate the discharge of flow by using different flow meters	Evaluate
		Solve Different parameters of Stagnation point, Velocity of sound wave for different process (Adiabatic process & Isothermal Process) And Stagnation pressure in compressible flow.	Applying
PC304CE	Building Materials and Construction	**Demonstrate** the ability to know different building materials such as stones bricks, timberetc., properties and their application	Understanding
		Explain different types of cements of different grades, IS specifications and types of mortar preparation, setting and curing	Understanding
		Appraise the **importance** of energy conservation , damp proof courses and fire protection in buildings	Evaluating
		Select different materials used in construction of form works and scaffolding	Apply
		Analyse types of joints in concrete and cracks in building.	Analyse
		Summarize different types of masonries and their applications	Understanding
PC305CE	Surveying - I	**Define** the concepts and terminology involved in basic surveying, chaining, plane table, levelling and contouring	Remember
		Define the various surveying instruments that are required to plot the plan/map of the field using linear and angular measurements	Remember
		Demonstrate the working principles of basic surveying instruments like chain, prismatic compass, plane table and dumpy level	Understanding
		Apply the knowledge of basic surveying in calculating lengths, bearings,of given field work	Apply
		Analyse the errors incorporated during measurements by conducting checks and apply the necessary corrections	Analyse
		Apply the knowledge of levelling in finding the elevation differences, reduced levels of ground, areas & volumes of given field work	Apply
		Define the concepts and terminology involved in basic surveying, chaining, plane table, levelling and contouring	Remember
PC351CE	Engineering	**Define** the features of geological maps, geotechnical maps,	Remember

Scanned by CamScanner

	Geology Lab	geomorphological maps, hydrogeological maps, and foundation geological maps at certain site locations	
		Demonstrate the seismic refraction method	Understanding
		Classify the minerals, rocks, geological structures	Analyse
		Identify the physical properties of minerals, geological and geotechnical characteristics of rocks.	Apply
		Examine aerial photographs using stereoscopes to study landforms, vegetation and water bodies.	Analyse
		Test for specific gravity, porosity, water absorption of different rocks and Vertical electrical sounding to identify the depth of water table and bedrock	Analyse
PC352CE	Surveying - I Lab	**Demonstrate** the working principles and handling procedures of basic surveying instruments like chain, prismatic compass, plane table in finding out linear and angular measurements	Understanding
		Make use of surveying equipments in computing lengths, areas & bearings of given field work	Apply
		Develop the plan of location by depicting various objects in the field using plane table	Apply
		Demonstrate the levelling instruments and apply the knowledge of levelling in finding out the reduced levels of ground	Apply
		Analyse the errors incorporated in a closed traverse during measurements and its adjustment by graphical method	Analyse
		Make use of digital planimeter in finding the areas from the plans	Apply

Coordinator

Head of the Department

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

Department Civil Engineering

Course Outcomes

A.Y: 18-19 **Sem: IV**

Course Code	Course Name	Course Outcomes	Taxonomy level
BS423MT	Numerical Methods	**Find** solutions of algebraic and transcendental equations by using different methods.	Remembering
		Compute the Eigen values of a matrix numerically	Evaluating
		Evaluate double integrals using different methods	Evaluating
		Express an approximate interpolating polynomials for equal and unequal intervals.	Applying
		Extending the concepts of numerical differentiation and integration to calculate velocity, acceleration, area of the region	Understanding
		Discuss ordinary and partial differential equations using numerical methods	Creating
PC401CE	Strength of Materials -II	**Estimate** the deflection of beams subjected to different loading by different methods.	Evaluating
		Apply the key concepts, theories and mathematical fundamentals to derive mathematical relations involved in evaluation of slope and deflections in a beam under various load types mentioned above.	Applying
		Evaluate the safe and economical section of the circular shaft.	Evaluating
		Evaluate the deflection & stiffness of springs	Evaluating
		Apply the Castigliano's theorem –I for beams and calculate the strain energy stored	Applying
		Explain the difference between medium, short & long columns	Understanding
		Evaluate the safe load bearing capacity of the columns	Evaluating
PC402CE	Fluid Mechanics - II	**Define** Reynolds number and classify the types of flows based on Reynolds number	Remembering
		Explain the pressure drop in a given length of pipe due to friction in a pipe and compare Heigen poseuille with Darcy's equation and also pipes in parallel and series	Understanding
		Define critical period in case of water hammer phenomenon and **compare** gradual valve closure with	Analyzing

Scanned by CamScanner

		sudden valve closure	
		Explain Boundary layer types with their different thickness and give reason for boundary layer separation and **apply** the knowledge of drag and lift on sphere, cylinder, f lat plate etc.,	Applying
		Compare pipe flow and channel flow and define most efficient channel section and construct velocity profiles and pressure profile diagrams	Analyzing
		Classify Gradually varied flow profiles with different methods and explain difference between hydraulic jump and siurge and also classify hydraulic jump based on frauds number	Understanding
PC403CE	Surveying -II	**Explain** the terminologies and concepts involved in modern surveying equipments and technologies like theodolite, total station, remote sensing, GIS,GPS and also define the concepts of horizontal and vertical curves.	Understanding
		Demonstrate the parts, working principles and applications of Theodolite, EDM and total station instruments.	Understanding
		Apply the knowledge of basic surveying in finding out Horizontal and vertical angles, traversing methods using Theodolite instrument	Applying
		Apply the knowledge of theodolite and basic trigonometry in finding heights of inaccessible points	Applying
		Make use of knowledge of curves concept in surveying, in setting out both horizontal and vertical curves for the purpose of roadway and railway alignment	Applying
		Analyse the amount of closing error of a traverse after finding out the omitted measurements in traverse and computes the missing data	Analysing
PC404CE	Hydrology and Water Management	**Estimate** the rainfall over a catchment area.	Evaluating
		Evaluate the evaporation, infiltration and runoff hydrograph.	Evaluating
		Assess different aquifer parameters influencing the groundwater occurrence	Evaluating
		Apply statistical methods in the field of hydrological analysis	Applying
		Compare and **evaluate** a number of methods for determining peak flows and flood hydrographs	Evaluating
		Estimate the ground water potential based on theoretical principles	Evaluating
MC916CE	Environmental Sciences	**Understanding** the importance of ecosystems, ecological balance for sustainable development.	Understanding

Scanned by CamScanner

		Explain the significance of Natural resources, their classification and alternative energy sources for the sustainability of the environment, society and economy by appropriate maintenance of natural resources.	Understanding
		Explain the biodiversity and types of biodiversity along with the Values and conservation of biodiversity.	Understanding
		Categorize the types of environmental pollution and the various treatment technologies for the diminution of environmental pollutants and contaminants.	Analyzing
		Summarize the global environmental issues and to create awareness about the international conventions and protocols for extenuating global environmental problems.	Understanding
		Explain the sustainable development concept and importance of green building and the importance of ES.	Understanding
HS401BM	Managerial Economics and Accountancy	**Explain** the responsibility of a manager and fundamental concepts of Managerial Economics.	Understanding
		Explain demand analysis and determinants of demand.	Understanding
		Analyse production & markets and compute the future sales level.	Analysing
		Explain the features, merits, uses & limitations of Pay back , ARR,NPV, PI & IRR methods of capital budgeting.	Understanding
		Explain the Principles of accounting and prepare Journal, Ledger, Trial balance, manufacturing	Understanding
		Forecast and **estimate** the Break Even Points /profits /Profit Volume Ratios of the Enterprise	Evaluating
PC451CE	Material Testing Lab	**Appraise** behaviour of a ductile material under direct tension test, by gaining knowledge on elastic properties of the material.	Evaluating
		Identify the importance of hardness of various metals like steel, brass, copper, aluminium etc. and would be able to compare the relative hardness of various engineering metals.	Applying
		Perceive and formulate the compressive strength of different engineering materials so as to apply this knowledge in the safe design of buildings and structures.	Evaluating
		Asses and understand the flexural properties of beams(simply supported, cantilever and fixed) made of different materials like wood, steel, copper etc. and this knowledge would help him in the design of engineering structures.	Evaluating
		Interpret the application of tension and compression springs in practice and will understand the properties like stiffness, capacity, shear modulus etc. of the springs.	Understanding
		Explain the impact properties of the materials like steel or concrete and compare the impact resistance	Understanding

Scanned by CamScanner

		capacity, energy absorption etc. of the material which is been put to use in structures.	
PC452CE	Fluid Mechanics- I Lab	**Examine** the variation of coefficient of discharge of Venturimeter and orifice meter	Analyzing
		Compare Coefficient of discharge of mouth piece with circular orifice	Analyzing
		Compare Coefficient of discharge of Rectangular notch with Triangular notch	Analyzing
		Classify different types of flows using Reynolds apparatus	Understanding
		Compare various losses in pipes and pipe fittings	Analyzing
		Show that coefficient of discharge is more than unity in Broad crested weir	Understanding
PC453CE	Surveying- II Lab	**Demonstrate** the working principles and handling procedures of theodolite	Understanding
		Construct the traverse using theodolite and balance using Bowditch's method	Applying
		Make use of theodolite in finding out horizontal and vertical angles and also in setting out horizontal curves	Applying
		Apply the knowledge of trigonometrical levelling in finding out reduced levels of elevated objects which are both accessible and inaccessible	Applying
		Demonstrate the principles and uses of total station	Understanding
		Make use of of total station to determine elevation differences, reduced levels and areas of traverse	Applying

Coordinator

Head of the Department

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

Department of Civil Engineering

Course Outcomes

AY: 2018-19

Sem: V

S.no	Course Code	Course Title	Course Outcome	Taxonomy level
1	PC501CE	Reinforced cement concrete	**Define** the characteristic strength of materials and partial safety factors for load and materials. Explain the design philosophies of working stress method and Limit state method.	Remembering
			Apply the key concepts, theories and mathematical fundamentals to analyze and design the structural elements.	Applying
			Analyze the moment capacity of structural elements. Design the structural elements for flexure, shear and torsion	Analyzing
			Examine the serviceability and durability of structural elements	Analyzing
			Decide the safety of the design as per IS code specification to choose the more safe and economical design of a structural member.	Evaluating
			Design simple structural members to be able to safely resist bending, shear , torsion, deflection and compression within the imposed factors of safety.	Creating
2	PC502CE	Theory of Structures - I	**Determine** degree of static and kinematic indeterminacies of beams and frames and to analyze its responses under external load using Moment Distribution Method and plotting their responses in SFD and BMD	Evaluating
			Perform analysis of Continuous beams and frames using Slope Deflection Method and plotting their responses in SFD and BMD	Analysing
			Analyse Continuous beams and frames using Rotation Contribution (Kani's) Method and plotting their responses in SFD and BMD	Analysing
			Apply strain energy principles for the displacements and Redundant forces of Trusses and displacements of beams and Frames	Applying
			Evaluate the stresses generated in determinate and indeterminate arches of various geometries by applying strain energy principles	Evaluating
			Evaluate, beams and frames using unit load,fictious and virtual work method	Evaluating

Scanned by CamScanner

3	PC503CE	Concrete Technology	**Identify** the functional role of ingredients of concrete and apply this knowledge to mix design philosophy	Applying
			Acquire and apply fundamental knowledge in the fresh and hardened properties of concrete	Understanding
			Evaluate the effect of the environment on service life performance, properties and failure modes of structural concrete and demonstrate techniques of measuring the Non Destructive Testing of concrete structure	Applying
			Develop an awareness of the utilisation of waste materials as novel innovative materials for use in concrete	Applying
			Design a concrete mix which fulfils the required properties for fresh and hardened concrete	Remembering
			Understanding the concepts of mix design according to American standards, British standards and Indian standards and comparison of standards and durability concepts for each type of mix design	Creating
4	PC504CE	Hydraulic Machines	**Illustrate** dimensional analysis as a useful tool to solve fluid mechanics problem in real field	Understanding
			Distinguish between distorted models and undistorted models	Analyzing
			Demonstrate impact of jet on different vanes	Understanding
			Compare the performance of Hydraulic turbines including design aspect	Analyzing
			Classify functional aspects of centrifugal pump	Analyzing
			Compare Centrifugal pump and reciprocal pump	Analyzing
			Illustrate dimensional analysis as a useful tool to solve fluid mechanics problem in real field	Understanding
5	PC505CE	Transportation Engineering -I	**Explain** the road network development and Highway planning in India	Understanding
			Design various geometric elements of the roads based on the geographical conditions	Creating
			Explain the different traffic characteristics and analyze the data	Understanding
			Analyze various highway materials for their suitability for highway construction	Analyzing
			Apply different design methods for pavement construction	Applying
			Explain the principles of construction and maintenance of highways	Understanding
6	PC506CE	Environmental Engineering	**Estimate** water quality and design the water supply Network	Evaluating
			Design the components of water treatment plant	Creating
			Estimate the sewage flow using different approaches through various sources.	Evaluating
			Design the components of a simple sewerage system.	Creating
			Impart the knowledge on sludge, solid waste treatment and disposal.	Applying

Scanned by CamScanner

			Design of septic tank, oxidation ponds and RBC and its components	Creating
7	PC507CE	Water Resources Engineering -I	**Define** water rights and water quality management principles.	Remembering
			Differentiate between Single and multipurpose projects, types of dams, types of irrigation tanks, types of spillways and spillway crest gates.	Understanding
			Apply the knowledge of storage works and regulatory systems	Applying
			Analyze the structural stability of different storage works	Analysing
			Design different types of storage works and fixation of different levels of reservoirs (LWL, FRL, MWL), evaporation reduction techniques.	Applying
			Apply the Design of different types of storage works	Applying
8	PE503CE	Infrastructure Engineering	**Understand** the basic theory of infrastructure engineering, Defining,economic zone,Compare urban infrastructure and Rural Infrastructure projects, Summarize, the Infrastructure Projects in power Sector, Water Supply and Sanitation Sector, Transportation Sector.	Understanding
			Explain Infrastructure Privatization, **Compare** public and private sector role in infrastructure development, **List** Problems with Infrastructure Privatization	Understanding
			Explaining infrastructure planning and implementation, **Identifing** Risks related to infrastructure Projects.	Understanding
			Asses the Social & Environmental impacts due to infrastructure Projects. **List** the Environmental laws.	Evaluating
			Identify the strategies for successful Infrastructure project implementation, Risk Management framework For infrastructure projects.	Understanding
			Explain Role of Government in infrastructure implementation.	Understanding
9	PC551CE	Fluid Mechanics - II Lab	**Examine** Mannings rugosity and Chezys coefficient and estimate loss of energy in Hydraulic jump	Analyzing
			Compare impact of jet coefficient for different vanes flat, inclined and semi hemi spherical	Analyzing
			Find the overall efficiency of the centrifugal pump and draw operating characteristic curves	Remembering
			Find the overall efficiency of the pelton wheel turbine and draw operating characteristic curves	Analyzing
			Compare prototype and model of Rectangular notch	Analyzing
			Inspect the critical slope of the channel for the given discharge in an open channel	Analyzing
10	PC552CE	Transportation Engineering Lab	**Identify** the grade & properties of bitumen	Applying
			Create the awareness about various traffic studies in the field	Creating
			Find out peak hour traffic & peak time for a given location on the road	Remembering

Scanned by CamScanner

			Find design speed, maximum speed & minimum speed limits of a location through spot speed	Remembering
			Identify engineering properties of aggregate	Applying
			Explain mix design of bitumen and CBR test etc.,	Understanding
11	PC553CE	Environmental Engineering Lab	**Explain** about importance of water to human survival.	Understanding
			Explain how to classify and analyze various quality parameters of raw water.	Understanding
			Assess quality of water and prepare a report about it	Evaluating
			Select required type of treatment to purify raw water.	Understanding
			Analyse different quality requirements for industrial and domestic waters	Analysing
			Estimate B.O.D and C.O.D of water and detect purity of water	Creating

Coordinator

Head of the Department

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

Department of Civil Engineering

Course Outcomes

AY: 2018-19 Sem: VI

S.No	Course Code	Course Title	Course Outcome	Taxonomy level
1	PC 601 CE	Steel Structures	**Explain** the connections in steel sections	Understanding
			Explain the differences of welded and bolted connections	Understanding
			Apply IS codal provisions and basics of design of steel structures	Applying
			Explain the design of different types of connections.	Understanding
			Estimate the design of tension, compression members, column bases and beams.	Creating
			Explain the design of roof trusses.	Understanding
2	PC 602 CE	Structural Engg Design and Detailing I	**Explain** the behaviour of soil pressure on combined footing and principles of design, understand the concepts of water tank design philosophies and bridge slab	Understanding
			Analyse cantilever and counter fort retaining walls for different load conditions with limit state method according to IS 456: 2000	Analysing
			Analyse water tanks, resting on ground and overhead water tanks according to IS3370: 2009.Design of staging of water tanks	Analysing
			Design rectangular combined footing and understand the principles of design of trapezoidal footing with limit state method according to IS 456: 2000.	Creating
			Design of cantilever type and counter fort type retaining walls.Design of staging of water tanks	Creating
			Design of Deck Slab bridge and T-beam bridge with IRC loadings according to IRC21: 2000.	Creating
3	PC 603 CE	Theory of Strucures-II	**Define** various terminology involved in analysis of complex structural problems and indeterminate structures.	Remembering
			Apply the basics of Engineering sciences in analyzing structures.	Applying

Scanned by CamScanner

			Apply basic concepts to analyze structures subjected to moving loads by drawing ILD's and compute its Reactions, Maximum Shear Force and Bending moment.	Applying
			Analyze indeterminate structures through matrix methods of analysis (Flexibility and Stiffness methods), and Direct element approach.	Analyzing
			Determine the impact of cables and suspension bridges on structures.	Evaluating
			Select FEM based Software's for design and analysis of Structures.	Remembering
4	PC 604 CE	Water Resource Engineering - II	**Define** the different components of hydraulic structures.	Remembering
			Explain the concepts of canals, weirs, seepage forces, canal falls types, regulators ; modules and cross drainage works.	Understanding
			Make Use of the Garrette's diagram for design of canals, fixation of still level of head sluice, scouring sluice and crest level of weir and selection of cross drainage works.	Applying
			Analyze the causes of failure of structure on permeable foundations, significance of exit gradient.	Analyzing
			Evaluate different possible hydraulic structures to choose the more safe and economical design for conveyance and storage of water for the needy.	Evaluating
			Design of lined canals, Head regulators, vertical Drops, sloping glacis weir, surface & sub- surface flow, length-level-thickness of D/S apron , U/S & D/S Cutoffs, protection works, types of Cross Drainage works.	Creating
5	PC 605 CE	Soil Mechanics	Learn, understand and **Classify** different soils	Understanding
			Learn **and evaluate** the Permeability and seepage in Soils.	Evaluating
			Explain and Evaluate the Compaction characteristics in Soils .	Evaluating
			Explain and Evaluate the Shear strength in Soils	Evaluating
			Explain and Evaluate the Earth pressures in Retaining Walls	Evaluating
			Explain and evaluate the stability of finite and infinite Earthen slopes	Evaluating
9	PC 606 CE	Transportation Engineering - II	**Demonstrate** the requirements of alignment and its surveys and explain the permanent way components with its functions	Understanding

Scanned by CamScanner

			Design the elements of railway track	Applying
			Demonstrate the techniques for construction and maintenance of railway track	Applying
			Explain the requirements of airport layout and explain aircraft characteristics	Understanding
			Explain wind rose diagrams and determine the corrected runway length	Understanding
			Design and construction of airport.	Creating
7	PE 603 CE	Ground Improvement techniques	**Define** terminologies in Ground improvement techniques and various materials used in it	Remembering
			Explain the necessity of ground improvement and potential of a ground for improvement	Understanding
			Identify the required techniques in the improvement of insitu cohesive soils as well as Cohesion less soils	Applying
			Analyze an in-situ ground, identification of ground improvement techniques	Analyzing
			Selection of the ideal method, its planning and **evaluation** of improvement level	Evaluating
			Design and implementation of improvement techniques	Creating
8	OE 601 ME	Industrial Robotics	**Explain** the mechanical structure of industrial robots, operational workspace, various types of grippers, design considerations.	Understanding
			Compare the various types of grippers, sensors and Analyze the best and economical sensors for specific applications.	Understanding & Analyzing
			Analyze forward and inverse kinematics problems for serial and parallel robots.	Applying
			Explain the techniques of robot vision, various programming languages and apply these techniques to build robots.	Understanding & Applying
			Explain about RGV and AGV , safety considerations and economic analysis of robots	Understanding
			Categorize an industrial robot for a given purpose economically.	Analyzing
9	OE 602 ME	Material Handling	**Explain** working of various conveying systems, bulk solids handling systems, equipment used in each system and modern material handling systems that available in industry	Understanding
			Identify the problems in manual work and factors influencing the selection of equipment.	Applying

Scanned by CamScanner

			Distinguish one material handling system with other along with their merits and demeris.	Analyzing
			Apply suitable material handling system such as pneumatic, hydraulic, mechanical or modern material handling systems for various types of materials.	Applying
			Analyze different material handling systems and can implement effective material handling system which is ergonomic in nature.	Analyzing
			Estimate number of MH systems required, storage space, cost and maintenance	Evaluating
10	PC 651 CE	Soil Mechanics Lab	**Determine** the Index properties of Soil	Evaluate
			Determine the Atterberg's limits of fine grained Soil	Evaluate
			Identify and classify the soil the soil	Analysis
			Analyze the Permeability of Soils	Analysis
			Determine the Engineering properties of Soil	Evaluate
			Determine the Shear Parameters of Soil by Direct Shear Test	Evaluate
11	PC 652 CE	Concrete Technology lab	**Understanding** fineness ,specific gravity and soundness of cement.	Evaluate
			Determine the consistency and setting times of cement	Evaluate
			Determine the compressive strength of cement.	Evaluate
			Examine specific gravity of coarse aggregate and fine aggregate by sieve analysis	Evaluate
			Demonstrate NDT and Apply the knowledge of NDT on concrete cubes	Understand
			Understanding the nature and properties of materials in concrete mix design	Understand
12	PW661CE	Survey Camp	**Apply** surveying knowledge and tools effectively for projects	Apply
			Develop knowledge of practical application of different survey works	Apply
			Organise tasks, goals and responsibilities	Apply
			Build interpersonal communication skills	Apply
			Develop their leadership qualities as well as ability to work in teams	Apply
			Create a report on topics based on work done during the survey camp	Create

(Dept. Assessment Co-ordinator)

HOD

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

Department of Civil Engineering

Course Outcomes

AY: 2018-19 Sem: VII

S.no	Course Code	Course Title	Course Outcome	Taxonomy level
1	CE401	Structural Engineering and Design Detailing - II	**Explain** the behaviour of plate girder, gantry girder and bearings under various loading conditions (such as axial, bending, shear, combinations and multi-axial bending).	Understanding
			Applying the given loading conditions to structural elements by selecting members from IS HAND BOOK number1 and checking them for stresses and deflections.	Applying
			Make use of mathematically formulated stress-strain relations and basic strength of materials theories and formulae based on elastic theories and plastic theories to solve for the stresses, strains and associated quantities in girders subjected to various loadings.	Applying
			Examine the structures elemental behaviour subjected to various load types by constructing and analyzing diagrams such as Stress-Strain diagram, Influence line diagrams.	Evaluating
			Evaluate two or more geometries and/or materials to choose the more safe and economical design of a structural member.	Evaluating
			Design simple structural members to be able to safely resist axial, bending, shear and combined stresses within the imposed factors of safety.	Evaluating
2	CE402	Construction management & administration	**Explain** objectives and Functions of Construction Management	Understanding
			Develop the time scheduling using PERT and CPM	Applying

Scanned by CamScanner

			Analyze the cost time in network planning,	Analysing
			Estimate The optimistic time for the completion of a Project.	Creating
			Classify types of contracts, List the advantages and disadvantages of types of contracts. Explain Tender forms documents etc, Understand project models – BOT, BOOT,PPP.	Understanding
			Develop linear program for optimization, **Create** graphical method linear programming in construction.	Creating
3	CE403	Foundation Engineering	**Analyse** and understand the stress distribution in soils	Analysing
			Classify about the types of Foundations and to evaluate their Bearing capacity.	Understanding
			Understand and **Practice** the **Design** of various types of Pile Foundation and well foundation.	Creating
			To **Examine** the necessity of Geotechnical Investigations	Analysing
			To Examine about the Foundation related aspects	Analysing
			To Categorize and to **Maintain** various records of Investigation for Foundations	Analysing
4	CE404	Water Resource Engineering -II	**Explain** about the structure of the dams, canals, spillways and cross drainage works.	Remembering
			Explain different types of dams, reservoir, types of irrigation tanks, types of spillways and spillway crest gates.	Understanding
			Apply the knowledge of storage works and regulatory systems.	Applying
			Analyze the structural stability of different storage works.	Analysing
			Design different types of storage works and fixation of different levels of reservoirs (LWL, FRL, MWL).	Applying
			Apply math, science, and technology in the field of water resource Engineering and water power engineering	Applying
			Explain about the structure of the dams, canals, spillways and cross drainage works.	Understanding

Scanned by CamScanner

5	CE405	Concrete Technology	**Identify** the functional role of ingredients of concrete and apply this knowledge to mix design philosophy	Applying
			Acquire and apply fundamental knowledge in the fresh and hardened properties of concrete	Understanding
			Evaluate the effect of the environment on service life performance, properties and failure modes of structural concrete and demonstrate techniques of measuring the Non Destructive Testing of concrete structure	Applying
			Develop an awareness of the utilisation of waste materials as novel innovative materials for use in concrete	Applying
			Design a concrete mix which fulfils the required properties for fresh and hardened concrete	Remembering
			Understanding the concepts of mix design according to American standards, British standards and Indian standards and comparison of standards and durability concepts for each type of mix design	Creating
6	**PC704CE**	Prestressed Concrete	**Demonstrate**and recognise the importance of materials used in PSC work and to demonstrate the prestressing methods and techniques	Understanding
			Explain the behaviour of a PSC beam section under given prestress and loads and identify the losses in prestressing.	Understanding
			Extend the knowledge of analysis to design a PSC beam section for the given conditions.	Understanding
			Analyze the Shear failure of a PSC beam and outline the procedure for safe shear design of PSC beams	Analyzing
			Determine the deflections which occur in PSC elements and **Compare** the short term and long term deflection	Evaluating
			Assess the extent of bursting tension in the end block of a PSC beam and develop the method of strengthening the end block	Evaluating
7	CE431	Concrete Lab	**Understanding** fineness ,specific gravity and soundness of cement.	Evaluating
			Determine the consistency and setting times of cement	Evaluating
			Determine the compressive strength of cement.	Evaluating

Scanned by CamScanner

			Examine specific gravity of coarse aggregate and fine aggregate by sieve analysis	Evaluating
			Demonstrate NDT and Apply the knowledge of NDT on concrete cubes	Understanding
			Understanding the nature and properties of materials in concrete mix design	Understanding
8	CE432	Computer applications Lab	**Demonstrate** the software skills to solve civil engineering related analysis and design.	Understanding
			Make use of software tool to analyze and design of RCC beams using limit state design	Applying
			Analyze and solve problems related to hydraulic structures using software.	Creating
			Solve the bearing capacity and other geotechnical related problems using software.	Applying
			Analyze and **solve** problems related to hydraulic structures using software	Analyzing
			Solve the bearing capacity and other geotechnical related problems using software.	Creating
9	CE433	Project Seminar	To **Build** the skills of reading literature and understand	Applying
			To **Adapt** with the present development in the concerned field	Creating
			To **Make use of** Team Work	Applying
			To **Develop** knowledge of documentation	Applying
			To get **Adapt** to th present Industrial Practice	Applying
			To **Create** and attain innovative skills	Creating

Coordinator

Head of the Department

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

Department of Civil Engineering

Course Outcomes

AY: 2018-19

Sem: VIII

S.no	Course Code	Course Title	Course Outcome	Taxonomy level
1	CE 451	Estimation and Specification	**Define** and **demonstrate** a basic knowledge on different methods and types of estimates, tenders, contracts and their specifications.	Remembering & Understanding
			Outline the procedures adopted for tendering and allotment of contracts.	Understanding
			Make use of standard available procedures and forms like Measurement books, Muster roll, bill of quantities, Schedule of rates, Detailed specifications etc.,	Applying
			Analyze rates of different items of work based on specifications using Schedule of rates.	Analyzing
			Develop an estimate quantities of different items of work for building, RCC works and road work works.	Applying
			Develop an estimate for different items of irrigation structures and different civil engineering structures.	Applying
2	CE 452	Disaster Mitigation and management	**Attain** knowledge on various types, stages, phases in disaster with international & national policies & programmes with reference to the disaster reduction	Understanding
			Explain various types of natural disasters, their occurrence, Effects, Mitigation and Management Systems in India	Understanding
			Explain different types of manmade disasters, their occurrence, effects, Mitigation and Management Systems in India	Understanding
			Explain the utility of geographic information systems (GIS), Remote sensing technology in all phases of disaster mitigation and management	Understanding
			Explain the concepts of risk, vulnerability, warning and forecasting methods in disaster management	Understanding
			Explain the role of education and training in disaster prevention.	Understanding
3	CE 453	Health Monitoring and Retrofitting of structures	**Define** all terms related to Structural Health Monitoring (SHM), **explain** its importance, **classify** and **contrast** its methods and applications	Understanding
			Explain the application of capacitive methods in Structural Health Monitoring of bridges, post-tension cables and historical monuments	Understanding
			Explain and **summarize** the various methods of Non-Destructive Testing of concrete structures according to their applications in various situations and contexts.	Understanding
			Describe, **list** and **explain** the various stages, methods and applications of condition survey and NDE of concrete structures.	Understanding
			List and **explain** the various defects and deterioration mechanisms in concrete and **describe** the importance and methods of quality control of concrete structures	Understanding
			List the various repair materials and methods of strengthening of structures and **describe** their methodology and applications	Understanding
4	CE 460	Infrastructure Engineering	**Explain** the basic theory of infrastructure engineering	Understanding

Scanned by CamScanner

			Explain public and private sector role in infrastructure development	Understanding
			Develop infrastructure planning and implementation	Understanding
			Analyze the design concepts and considerations in tall Buildings.	Understanding
			Identify the strategies for successful Infrastructure project implementation	Understanding
			Explain Role of Government in infrastructure implementation.	Understanding
5	CE 481	Seminar	**Choose** a particular topic/ research paper from Civil Engineering and define the basic outline or summary of the topic / research paper.	Remembering
			Explain the Literature review of selected topic/research paper.	Understanding
			Asses various sophisticated technologies and methodologies available in the field of civil Engineering	Evaluating
			Improve oral and written communication skills and draft a report on the study by **applying** the basic knowledge of Civil Engineering.	Applying
			develop ethics by framing the required documentation without plagiarism	Applying
			make use of MS Office utilities in making the presentation and Report.	Applying
6	CE 482	Project	**Develop** the attitude of writing reviews on the literature	Understanding
			Practice & **improve** professional skills	Creating
			To get habituated and familiarize the tools and technical's of documentations	Understanding
			To get acquainted with the Team work	Understanding
			To get exposure to the industrial practice and Research Practices	Applying
			To ascertain skill to work with Innovative and entrepreneurial ideas	Applying

Coordinator

Head of the Department

Scanned by CamScanner

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by AICTE New Delhi/Affiliated to Osmania University, Hyderabad
principal@methodist.edu.in
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Course Outcomes

A.Y.: 2018-19 **Semester: III**

Course Code	Course Name	Course Outcome	Taxonomy
BS301MT	Engineering Mathematics	**Find** solutions of first order and second order partial differential equations.	Remember
		Apply Fourier series to find solutions of partial differential equations.	Apply
		Solve complex and real integrals using residue theorem.	Apply
		Analyze a given function in the form of Fourier series	Analyze
		Determine the analyticity of a complex functions and expand functions as Taylor and Laurent series.	Evaluate
		Classify types of partial differential equations and find their solution.	Analyze
ES934EC	Basic Electronics	**Explain** the basic knowledge on the working of various semi-conductor devices and there importance in the present electronics & about CRO applications	Understand
		Apply and develop analysis capability in BJT and FET Amplifier Circuits	Apply
		Built the circuit to produce pure DC signal using rectifier circuits & regulators	Create
		Examine Operational Amplifier circuits as Summer, differentiator, integrator, inverting and non inverting amplifiers as ideal and practical & Feed back amplifiers	Analyze
		Evaluate Boolean laws and theorems. State and explain the different logic gates using truth table. Analyze and design different adder circuits.	Evaluate
		Analyze the circuit to produce pure AC signal using oscillators, and produce sinusoidal oscillations with different frequencies using oscillator circuits & Study of Thristors devices .	Analyze
PC301CS	Data Structures	**Apply** the notations used to analyze the performance of algorithms	Apply
		Describe various data structures like Stacks, Queues, Linked lists, Trees and Graphs are represented in memory and used by algorithms	Understand
		Write programs that use various data structures like Stacks, Queues, Linked lists, Trees , Graphs and sortings .	Create
		Compare and contrast the time complexities of various searching and sorting algorithms.	Evaluate
		Design and implement an appropriate hashing function for an application and skip list	Create
		Apply tree and graph traversal methods in real time applications.	Apply
PC302CS	Discrete	**Apply** the skill of logical notation to define and reason	Apply

Scanned by CamScanner

	Mathematics	about fundamental mathematical concepts such as sets, relations, functions, and integers.	
		Able to **produce** convincing arguments, analyze basic mathematical proofs and discriminate between valid and unreliable arguments.	Create
		Able to **model** and **solve** real-world problems using graphs and trees, both quantitatively and qualitatively.	Apply
		Able to **formulate** problems and **solve** the recurrence relations and to find asymptotic growth rates of different functions.	Create
		Model and **solve** the real world problems using Generating Functions and Recurrence Relations.	Apply
		Understand general properties of Algebraic systems and study lattices as partially ordered sets and their applications	Apply
PC303CS	Logic and Switching Theory	**Understand** switching algebra theorems, logic functions, logic gates and their properties.	Apply
		Identify the importance of SOP and POS canonical forms in the minimization or other optimization of Boolean formulas in general and digital circuits.	Apply
		Evaluate functions using various types of minimizing algorithms like Boolean algebra, Karnaugh map or tabulation method	Evaluate
		Analyze the design procedures of Combinational logic circuits.	Analyze
		Understand bi-stable elements and different types of latches and flip-flops.	Apply
		Analyze the design procedures of small sequential circuits and devices and to use standard sequential functions /building blocks to build larger more complex circuits and the design of a finite state machine, asm charts...	Analyze
MC916CE	Environmental Science	**Synthesize** popular media reports/articles discussing environmental issues, and verbally discuss and defend their positions on scientific issues	Create
		Able to **list** common and adverse human impacts on biotic communities, soil, water, and air quality and suggest sustainable strategies to mitigate these impacts	Analyze
		Apply mathematical concepts, including statistical methods, to field and laboratory data to study scientific phenomena.	Apply
		Design and execute a scientific project.	Create
		Understand the importance of Environmental legislation policies.	Apply
		Categorize the types of environmental pollution and the various treatment technologies for the diminution of environmental pollutants and contaminants.	Analyze

Scanned by CamScanner

PC351CS	Data Structures Lab	**Analyze** various data structures such as Stacks, Queues, Linked list and Trees	Analyze
		Implement the applications of Stack	Apply
		Explain various types of priority queues and graphs	Evaluate
		Implement the applications of graphs Traversals	Apply
		Implement the various sorting techniques	Apply
		Implement the various searching techniques	Apply

Assessment Coordinators
1. **Dr V Padmakar**
2. **Mr. D Rajashekar**

Head – CSE

Head of the Department
Department of CSE
Methodist College of Engg & Tech
Abids, Hyderabad.

Scanned by CamScanner

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by AICTE New Delhi/Affiliated to Osmania University, Hyderabad
principal@methodist.edu.in

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Course Outcomes

A.Y.: 2018-19

Semester: IV

Course Code	Course Name	Course Outcome	Taxonomy
BS421MT	Mathematics and Statistics	To Find the rank of matrix,eigen values and eigen vectors. Canonical and Quadratic forms.	
		To Solve the ordinary differential equations of first and higher order and their physical and geometrical applications	Apply
		To Solve problems of Legendre polynomials and Beta Gamma functions and their relation	Apply
		To Classify the types of matrices, differential equations and special functions.	Analyze
		To Evaluate Laplace Transforms, Inverse Laplace Transforms of functions and their applications to ordinary differential equations.	Evaluate
		To Prove relation between Beta Gamma functions and recurrence relation of special function	Analyze
PC401CS	Computer Organization	Able to understand the Instruction Set Architecture: Instruction format, types, various addressing modes	Apply
		Able to understand the basic components and design of the CPU: the ALU and control unit write multi threaded programs with synchronization.	Create
		Understand and analyze various issues related to memory hierarchy	Analyze
		Evaluate various modes of data transfer between CPU and I/O devices.	Evaluate
		Able to understand the parallelism both in terms of a single processor and multiple processors	Apply
		Able to understand the I/O Organization, Interrupt-driven I/O, DMA	Apply
PC402CS	Object Oriented Programming Using Java	Apply object oriented principles in s/w development process	Apply
		Apply java program for real applications using java construct and libraries.	Apply
		Understand and apply various object oriented features like class, object, data abstraction, encapsulation, inheritance, polymorphism to solve various computing problems using java language.	Apply
		Implement exception handling in java	Create
		User graphical user interface and event handling in java	Understand
		Develop and deploy AWT, Swings in java	Apply
PC403CS	Programming Languages	Explain ability to express syntax and semantics in formal notation.	Evaluate
		Apply ability to apply suitable programming paradigm for the application.	Apply
		Make use of identify and describe semantic issues associated with variable binding, scoping rules, parameter passing, and exception handling.	Apply

Scanned by CamScanner

		Examine the gain knowledge and comparison of the features programming languages.	Analyze
		Evaluate their relative benefits for program in different language paradigms	Evaluate
		Design issues of object-oriented and functional languages.	Create
PC404CS	Microprocessors and Interfacing	**Able** to understand the architecture and organization of microprocessor.	Understand
		Build programs in assembly language.	Create
		Able to understand communication and bus interfacing	Understand
		Able to understand software/hardware interfacing and system connections	Understand
		Able to understand the significance of Interrupts in 8085 and 8086	Understand
		Able to understand the usage of macros	Apply
PC451CS	Java Programming Lab	**Able** to understand the use of OOPs concepts.	Apply
		Able to solve real world problems using OOP techniques and able to understand the use of abstraction.	Apply
		Able to understand the use of Packages and Interface in java	Understand
		Able to develop and understand exception handling, multithreaded applications with synchronization.	Understand
		Able to understand the use of Collection Framework.	Understand
		Able to design GUI based applications and develop applets for web applications.	Create
PC452CS	Microprocessors Lab	**Understand** working of 8085 processor architecture, addressing modes.	Apply
		Build assembly language program using 8085 instruction set	Create
		Understand working of 8086 processor architecture, addressing modes	Apply
		Build assembly language program using 8086 instruction set	Create
		Distinguish between the different modules of operation of microprocessors	Analyze
		Develop complex applications using Assembly language programming methods	Create
PC454CS	Mini Project	**Choose** a problem in recent advancements with applications towards society.	Create
		Formulate requirement analysis for solving a problem.	Create
		Design a software based solution within the scope of project.	Create
		Utilize contemporary technologies and tools.	Apply
		Test and deploy the applications on real world environments.	Analyze
		Demonstrate qualities necessary for working in a team and communicate effectively in both written and oral forms.	Understand

Assessment Coordinators

1. **Dr V Padmakar**
2. **Mr. D Rajashekar**

Head – CSE

Copy of the Department
Department of CSE
Methodist College of Engg & Tech
Abids, Hyderabad.

Scanned by CamScanner

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by AICTE New Delhi/Affiliated to Osmania University, Hyderabad

principal@methodist.edu.in

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Course Outcomes

A.Y.: 2018-19 Semester: V

Course Code	Course Name	Course Outcome	Taxonomy
PC501CS	Database Management Systems	**Understand** the mathematical foundations on which RDBMS are built	Understand
		Model a set of requirements using the Extended Entity Relationship Model (EER), transform an EER model into a relational model ,and refine the relational model using theory of Normalization	Apply
		Develop Database application using SQL and Embedded SQL	Apply
		Use the knowledge of file organization and indexing to improve database application performance	Understand
		Understand the working of concurrency control and recovery mechanisms in RDBMS	Apply
		Understand the concepts of procedures, functions, triggers, exceptions, packages	Apply
PC503CS	Automata, Languages & Computation	**Explain** the basic concepts of finite automata and regular expressions	Understand
		Describe the types of grammar and derivation tree.	Apply
		Test the equivalence of pushdown automata and CFL.	Understand
		Develop a computational model using Turing machine for the given problem	Create
		Use Chomsky hierarchy to solve given problems	Understand
		Examine the complexity for P and NP completeness for the given problem	Analyze
PC504CS	Operating Systems	**Explain** the concepts of OS structure and process synchronization.(Understand-2)	Evaluate
		Evaluate and design different process scheduling algorithms. (Evaluate-5)	Evaluate
		Identify the rationale behind various memory management techniques along with issues and challenges of main memory, virtual memory. (Applying-3)	Apply
		Compare different file allocation methods and decide appropriate allocation strategies for given type of file. (Analyse-4)	Analyze
		Explain the mechanisms available in OS to control access to resource and provide system security. (Evaluate-5)	Evaluate
		Compare the features of Linux and Windows7 Operating system. (Understand-2)	Analyze
PC505CS	Computer Graphics	**Define** the steps in graphics programming pipe line	Remember
		Make use of Interactive graphics applications using OpenGL to draw geometric primitives	Apply
		Apply affine transformations for viewing and projections	Apply
		Create realistic images of 3-d objects that involve lighting shading aspects and various animation sequence	Create
		Explain basic illumination and color models	Evaluate

Scanned by CamScanner

		Demonstrate the mathematical principles to represent curves and surfaces	Understand
HS901MB	Managerial Economics and Accountancy	The student will **illustrate** about the business, economic, cultural and social environment and the structural aspects of Managerial Economics.	Understand
		Construct and analyze the financial statements of the business and interpret them for taking ideal	Analyze
		After **analytically** studied about different principles and laws of managerial economics he will be able to examine the consumer behavior and take various managerial decisions, such as forecasting demand for new and existing goods and services and also suggest the best profit maximizing production function to the producers/entrepreneurs	Analyze
		The student will **apprise** the firms behaviour in different market structures with respective to competition, price fixation of products.	Evaluate
		With the **knowledge** of capital budgeting methods and techniques, the student can evaluate different business proposals and identify the best among them for prudent investment.	Apply
		Discuss the process & principles of accounting and prepare Journal, Ledger, Trial Balance, Manufacturing A/c, Trading A/c., Profit & Loss A/c. and Balance Sheet of an enterprise.	Create
PC502CS	Artificial Intelligence	**Identify** problems that are amenable to solution by AI method	Apply
		Formulate some single player or two player games using state space search graphs and apply search algorithms like A* to solve path finding algorithms.	Create
		Explain natural language/English using Propositional logic, Predicate Logic and use resolution to infer/ prove conclusions.	Evaluate
		Apply planning on logic to Build a Bayesian network and reason from it.	Apply
		Apply supervised learning methods like decision tree, naïve Bayes, and neural networks to observe the performance of small applications.	Apply
		Develop a Natural language processing system. Represent and infer using fuzzy logic.	Create
PC551CS	Database Management Systems Lab	**Design** and implement a database schema for a given problem	Create
		Populate and query a database using SQL and PL/SQL	Understand
		Develop multi-user database application using locks	Create
		Develop the procedures, functions, triggers	Create
		Develop exceptions, cursors	Create
		Develop packages	Create
PC 552CS	Operating Systems Lab	**Experiment** with basic Linux shell commands	Apply
		Analyze the performance of the various Memory management algorithms and develop various memory management schemes	Analyze
		Interpret the benefits of thread over process and Build synchronized programs using multithreading concepts.	Evaluate
		Compare various CPU Scheduling Algorithms like FCFS, Round Robin, SJF, and Priority and develop programs for all the algorithms	Evaluate

Scanned by CamScanner

		Understand the concept of process synchronization and create programs like Dining Philosophers problem.	Understand
		Understand the basics of shell scripting and develop shell scripts for simple system administration tasks	Understand
PC553CS	Computer Graphics Lab	**Build** interactive graphics applications using OpenGL geometric primitives	Create
		Implement basic transformations on objects using OpenGL	Create
		Build different views using projections	Apply
		Create realistic images of 3-d objects with light sources and shading	Create
		Build walkthrough programs using OpenGL	Apply
		Understand the concept of Bezier and Bspline curve and build the programs for curves	Understand
HS901EG	Gender Sensitization	**Develop** a better understanding of important issues related to gender in contemporary India.	Create
		To **change** the basic dimensions of the biological. Sociological, psychological and legal aspects of gender through discussions, facts, everyday life, literature and film	Understand
		To **analyze** how gender discrimination works in our society and how to counter it.	Analyze
		To **identify** and plan better ways of working and living together as equals.	Apply
		To **develop** a sense of appreciation of women in all walks of life	Create
		To **make up** in developing good interpersonal relationships at work places and to develop a sustain interest in gender equality	Create

Assessment Coordinators
1. **Dr V Padmakar**
2. **Mr. D Rajashekar**

Head – CSE

Head of the Department
Department of CSE
Methodist College of Engg & Tech
Abids, Hyderabad.

Scanned by CamScanner

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by AICTE New Delhi/Affiliated to Osmania University, Hyderabad

principal@methodist.edu.in

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Course Outcomes

A.Y.: 2018-19 **Semester: VI**

Course Code	Course Name	Course Outcome	Taxonomy
PC601CS	Design and Analysis of Algorithms	Students will be able to **Analyze** a given algorithm and express its time and space complexities in asymptotic notations.	Analyze
		Model and solve the real world problems using Generating Functions and Recurrence Relations.	Understand
		Students will be able to **Design** algorithms using Divide and Conquer Strategy.	Create
		Students will be able to **Compare** Dynamic Programming and Divide and Conquer Strategies.	Evaluate
		Students will be able to **Solve** Optimization problems using Greedy strategy.	Create
		Students will be able to **Design** efficient algorithms using Back Tracking and Branch Bound Techniques for solving problems and Classify computational problems into P, NP, NP-Hard and NP-complete.	Create
PC602CS	Software Engineering	**Relate** an appropriate process model for assessing software project development .	Understand
		Build necessary requirements for project development eventually composing SRS	Create
		Analyze various life cycle activities like Analysis, Design, Implementation, Testing and Maintenance.	Analyze
		Survey visual models to describe (non-) algorithmic solutions for project build out.	Analyze
		Choose solutions for recurring problems development exerting knowledge on design principles and patterns.	Remember
		Determine product quality through testing techniques, employing appropriate metrics.	Evaluate
PC603CS	Web Programming	**Design** a basic web site using HTML5 and CSS3 to demonstrate responsive web design	Create
		Explain XML structure using DTD, schemas and apply XSLT.	Understand
		Design dynamic web pages with server validation using Scripting(JS,PHP AJAX & Python)	Create
		Understand server side programming using Servlet, JSP capable of handling sessions.	Apply
		Design a web application with backend database connectivity	Create
		Create simple web application using server side PHP programming and Database Connectivity using MySQL	Create
PC604CS	Computer Networks & Programming	Understand basic computer network technology.	Apply
		Demonstrate the layers of the OSI model, TCP/IP and their function(s).	Understand
		Choose the different types of network topologies and protocols.	Evaluate
		Identify the shortest path in a given network.	Apply
		Inspect different routing and congestion control algorithms	Analyze

Scanned by CamScanner

		Interpret the skills of sub-netting and routing mechanisms and socket programming.	Understand
PE603CS	Advanced Databases	**Describe** the features added to object-relational systems to distinguish them from standard relational systems.	Understand
		Model a relational/semi-structured database using XML Schema.	Apply
		Understand different algorithms used in implementation of query evaluation engine.	Apply
		Measure query costs and design alternate efficient paths for query execution.	Evaluate
		Understand and Analyze the different concurrency control and commit protocols in distributed databases.	Analyze
		Demonstrate an understanding of the role and the concepts involved in special purpose databases such as Temporal, Spatial, Mobile and other similar database types.	Understand
OE601CE	Disaster Management	**Analyze** the different public health aspects of disaster events at local and global levels, even when limited information is available. (Analyze).	Analyze
		Evaluate the environmental, social, cultural, economical, legal and organizational aspects influencing vulnerabilities and capacities to face disasters and to know different types of environmental hazards (Evaluate)	Evaluate
		Examine different types of natural and man- made disasters, theoretically and practically in the processes of disaster management and relate their interconnections. (Analyze)	Analyze
		Interpret endogenous and exogenous hazards and their harmful effects to the environment through case studies in India. (Understand)	Understand
		Organize strategies for mitigation in future scenarios with available risk reduction techniques. (Applying)	Apply
		Demonstrate different aspects of the emergencies and disaster events into the potential and limitations of science and its role in society and people's responsibility for how it is used. (Understand)	Understand
PC651CS	Software Engineering Lab	**Interpret** a variety of approaches and perspectives of system development.	Understand
		Identify the requirements which are relevant to the design of a system.	Apply
		Model software design with a set of objects and their relationships using structural modeling.	Create
		Take part in using advanced & behavioral modeling to develop a case study.	Analyze
		Design the activities with the help of behavioral modeling.	Create
		Develop components through architectural modeling.	Apply
PC652CS	Web Programming Lab	Design a basic web site using HTML5 and CSS3 to demonstrate responsive web design	Create
		Describe XML structure using DTD, schemas and apply XSLT.	Apply
		Create dynamic web pages using server side scripting	Create
		Design a web page to perform session handling and client validations	Create

Scanned by CamScanner

		Develop a web application with backend database connectivity	Apply
		Create simple web application using server side PHP programming and Database Connectivity using MySQL	Create
PC653CS	Computer Networks & Programming Lab	**Examine** different IPC techniques.	Analyze
		Develop concurrent client-server applications using TCP and UDP.	Create
		Develop iterative client-server applications using TCP and UDP.	Create
		Analyze communication path established.	Analyze
		Inspect the reachability to a destination in the network.	Analyze
		Build application which maps names to IP addresses (DNS).	Create

Assessment Coordinators

1. **Dr V Padmakar**
2. **Mr. D Rajashekar**

Head – CSE

Head of the Department
Department of CSE
Methodist College of Engg & Tech
Abids, Hyderabad.

Scanned by CamScanner

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by AICTE New Delhi/Affiliated to Osmania University, Hyderabad
principal@methodist.edu.in
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Course Outcomes

A.Y.: 2018-19 **Semester: VII**

Course Code	Course Name	Course Outcome	Taxonomy
CS 401	Distributed Systems	**Find** solutions for issues in architectures by applying the concepts of distributed systems	Remember
		Illustrate client/server, p2p algorithms, RPC and RMI communication methodologies	Understand
		Understand synchronization among processes through various coordination algorithms	Apply
		Apply distributed transaction control algorithms for optimistic concurrency control along with fault tolerance recovery mechanisms	Apply
		Tell apart client and data centric consistency models in a Distributed System.	Remember
		Interpret the knowledge over shared memory and file systems in distributed environment.	Evaluate
CS 402	Artificial Intelligence	**Apply** the concept of Agents that plan, Algorithm A*, Heuristic Functions .	Apply
		Develop the procedures of Predicate Calculus, Resolution in Predicate Calculus, Rule-Based Expert Systems.	Create
		Identify problems where artificial intelligence techniques are applicable by using probability theory, & Bayes Networks.	Apply
		Apply selected basic AI techniques, Judge applicability more advanced techniques using neural networks.	Apply
		prioritize from the design of system that act intelligently and learn from experience	Evaluate
		Analyze the performance of the various concepts of Fuzzy Logic Systems	Analyze
CS 404	Principles & Applications of Embedded Systems	**Understand** the embedded system design process and design example	Apply
		Apply the programming techniques in developing the assembly language program for microcontroller application	Apply
		Understand Real-Time Operating Systems and apply basic design using a Real-Time Operating System	Apply
		Apply the programming techniques in developing the Real-Time Operating System concepts like scheduling, inter task communication..	Apply
		Understand the embedded Software development tools and apply knowledge of tools by use of a PC based Microcontrollers simulator.	Apply
		Understand various debugging techniques and design embedded system.	Create
CS 411	Software Project	**Understand** the old and new ways of the state of	Apply

Scanned by CamScanner

	Management	practices in the software industry and remember the software project management activities.	
		Analyze the milestones in the life-cycle of the project, remember the artifacts and understand the strategic importance of check points of the process.	Analyze
		Select and use project management frameworks that ensure successful outcomes.	Evaluate
		Apply appropriate techniques for software economics to real world problems	Apply
		Identify the social, professional, cultural, and ethical issues involved in the use of technology.	Apply
		Develop software projects based on current technologies, by managing resources economically and keeping ethical values.	Apply
CS 416	Mobile Computing	**Explain** the principles and theories of mobile computing technologies.	Understand
		Describe infrastructures and technologies of mobile computing technologies.	Evaluate
		list applications in different domains that mobile computing offers to the public, employees, and businesses	Remember
		Explain effectively communicate course work through written and oral presentations	Understand
		Demonstrate basic skills for cellular networks design.	Understand
		Apply knowledge of TCP/IP extensions for mobile and wireless networking	Apply
CS 431	Distributed Systems Lab	**Build** the FTP Protocol.	Create
		Develop DNS application with large multiple Clients.	Create
		Develop Message Exchange Application.	Create
		Explain the working procedure of threads with Chat Application.	Understand
		Understand the Concept of Transactions.	Understand
		Develop NFS Application.	Create
CS432	Embedded Systems Lab	**Develop** basic programs using ARM7 processor	Create
		Develop ALP using the capabilities of the stack, the program counter, and the status register and show how these are used to execute a machine code program.	Create
		User **Interfacing** ESA Board MC89C51ED2 to interface Input-Output and develop control applications such as traffic controller.	Analyze
		Explain the porting of Real Time applications on to target machines using RTOS.	Evaluate
		Understand the concepts of Real Time Operating Systems, and write program using Kiel	Understand
		Design simple applications using 8051 Micro controller.	Create
CS 433	Project Seminar	**Choose** a problem in recent advancements with applications towards society.	Remember

Scanned by CamScanner

		Formulate requirement analysis for solving a problem.	Create
		Design a software based solution within the scope of project.	Create
		Utilize contemporary technologies and tools.	Apply
		Test and deploy the applications on real world environments.	Create
		Demonstrate qualities necessary for working in a team and communicate effectively in both written and oral forms.	Understand

Head – CSE

Head of the Department
Department of CSE
Methodist College of Engg. & Tech.
Abids, Hyderabad.

Assessment Coordinators
1. Dr V Padmakar
2 Mr. D Rajashekar

Scanned by CamScanner

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY
Approved by AICTE New Delhi/Affiliated to Osmania University, Hyderabad
principal@methodist.edu.in
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Course Outcomes

A.Y.: 2018-19 Semester: VIII

Course Code	Course Name	Course Outcome	Taxonomy
CS451	Data Mining	**Evaluate** and Implement a wide range of emerging and newly-adopted methodologies and technologies to facilitate the knowledge discovery.	Evaluate
		Assess raw input data, and process it to provide suitable input for a range of data mining algorithms.	Evaluate
		Describe and **measure** interesting patterns from different kinds of databases.	Evaluate
		Compare Characterize and discriminate data summarization forms and determine data mining functionalities.	Understand
		Evaluate and select appropriate data-mining algorithms and apply, and interpret and report the output appropriately.	Evaluate
		Design and implement of a data-mining application using sample, realistic data sets and modern tools.	Create
CS463	Software Quality and Testing	**Define** Software Quality Assurance Framework and Standards.	Remember
		Outline various Metrics, Methodologies for Measuring SQA.	Understand
		Classify the Software Testing Strategy and Associate it with the Test Environment.	Understand
		Select a Specific Testing Technique and Tool for Software Development.	Remember
		Apply the Test Process on various Software Domains.	Apply
		Inspecting different automated testing tools.	Analyze
CS476	Cloud Computing	**Explain** the key dimensions of the challenge of Cloud Computing.	Evaluate
		Apply **Assess** cloud Storage systems and Cloud Security, the Risks involved, its impact and develop cloud application. Broadly educate to know the impact of engineering on legal and societal issues involved in addressing the security issues of cloud computing.	Evaluate
		Make use of suitable Virtualization concept, Cloud Resource Management and design scheduling algorithms.	Apply
		Examine the Cloud computing setup with its vulnerabilities and applications using different architectures.	Analyze
		Evaluate Assessment of economics, financial, and technological implications for selecting cloud computing for own organization.	Evaluate
		Design different workflows according to requirements and apply map reduce programming model. Create combinatorial auctions for cloud resources and design scheduling algorithms for computing clouds.	Create

Scanned by CamScanner

CE452	Disaster Mitigation and Management	**Make use of** knowledge on various types, stages, phases in disaster with international & national policies & programmes with reference to the disaster reduction	Apply
		Understand various types of natural disaster, their occurrence, Effects, Mitigation and Management Systems in India	Understand
		Understand different types of manmade disasters, their occurrence, Effects, Mitigation and Management Systems in India	Understand
		Explain the utility of geographic information systems (GIS), Remote sensing technology in all phases of disaster mitigation and management	Evaluate
		Understand on the concepts of risk, vulnerability, warning and forecasting methods in disaster management	Understand
		Understand the role of education and training in disaster prevention.	Understand
CS481	Data Mining Lab	**Apply** data preprocessing techniques.	Apply
		Apply Frequent Item-set Mining methods to generate association rules.	Apply
		Identify and perform appropriate classification for given dataset.	Apply
		Categorize and apply appropriate clustering for given dataset.	Analyze
		Evaluate models/algorithms with respect to their accuracy.	Evaluate
		Construct a data mining solution to a practical problem.	Create
		Select a Specific Testing Technique and Tool for Software Development.	Remember
		Apply the Test Process on various Software Domains.	Apply
		Inspecting different automated testing tools.	Analyze

Assessment Coordinators

1. **Dr V Padmakar**
2. **Mr. D Rajashekar**

Head – CSE

Head of the Department
Department of CSE
Methodist College of Engg & Tec
Abids, Hyderabad.

Scanned by CamScanner

METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACEDEMIC YEAR 2018 - 19

B.E III SEMESTER

Course Outcomes

S No	Course	Course Title	CO No.	Course Outcome	TAXONOMY
1	BS 301 MT	EM III - Engineering Mathematics- III	CO1	Find solutions of first order and second order partial differential equations.	Remember
			CO2	Apply Fourier series to find solutions of partial differential equations.	Apply
			CO3	Solve complex and real integrals using residue theorem.	Apply
			CO4	Analyze a given function in the form of Fourier series	Analyze
			CO5	Determine the analyticity of a complex functions and expand functions as Taylor and Laurent series.	Evaluate
			CO6	Classify types of partial differential equations and find their solution.	Evaluate
2	PC 301 EC	Electronic Devices	CO1	Explain the operation of semiconductor devices	Understand
			CO2	Apply the V-I characteristics of Bipolar Junction Transistor in CB,CE & CC configurations, FETs, MOSFETs and various Biasing techniques of BJT and FET in various Electronic Device circuit	Apply
			CO3	Make use of biasing techniques in the design process of amplifier circuits	Apply
			CO4	Analyze simple amplifier circuits (BJT and FET) using small signal low frequency model	Analyze
			CO5	Design simple amplifier circuits using BJT and FET	Create
			CO6	Design half wave and full wave rectifiers without and with filters	Create
3	PC 302 EC	Switching Theory and Logic Design	CO1	Understand the basic concepts related to number system and their conversion.	Understand
			CO2	Analyze the boolian logic equations and simplify using K-map and tabular method .	Analyse
			CO3	Analyze the different combinational circuits and impliment them using IC's.	Analyse
			CO4	Understand the operation of flip flops and converting one flip flop to another.	Understand
			CO5	Analyze the cocepts of sequentional circuits .	Analyse
			CO6	Design the counter using different IC's.	Create
4	PC 303 EC	Signal Analysis & Transform Techniques	CO1	Understand the basic concepts related to continuous time signals and systems, mathematical representation of periodic signals.	Understand
			CO2	Understand the basic concepts related to continuous time signals and systems, mathematical representation of aperiodic signals	Understand
			CO3	time signals.	Analyse
			CO4	Define convolution, correlation operations on continuous and discrete time signals	Remember
			CO5	Evaluate the concept of Z transform and its properties	Evaluate
			CO6	Evaluate the concept of L transform and its properties	Evaluate

Scanned by CamScanner

5	PC 304 EC	Network Analysis and Synthesis	CO1	Study of symmetrical and asymmetrical networks and their electrical properties, T to PI conversion vice versa	Study
			CO2	Design concepts of different filters(low pass, high pass, band pass, band stop)with different types like K, m-derived, composite	Design
			CO3	Design different Types of Attenuator and Equalizers	Design
			CO4	Study and construct RLC circuits using Laplace Transformations	Study
			CO5	Design concepts of Network synthesis and checking Hurwitz polynomials, Positive real function	Design
			CO6	Realize LC, RC,RL Networks by synthesis	Realize
6	MC 306ME	Elements of Mechanical Engineering	CO1	Understand the thermodynamics concepts to design thermal systems.	Understand
			CO2	Evaluate and compare the performances of prime movers like I.C engines, heat exchangers	evaluate
			CO3	Analyze the different modes of heat transfer i.econduction,convection and radiation.	analyze
			CO4	Analyze and understand the working of machines like lathe,milling,grinding,drilling machines	Analyze
			CO5	Evaluate the velocity ratio of gear drives,belt drives to design the gears and belt drives.	Evaluate
			CO6	Analyze the belt transmission system after evaluating its parameters like length of belt,power transmission ratio of tensions.	Analyze
7	PC 351 EC	Electronic Devices and Logic design Lab	CO1	Understand and Analyze different types of diodes, their operation and characteristics.	Analyze
			CO2	Analyze the performance evaluation of half wave and full wave rectifiers without filters and with filters	Analyze
			CO3	Design and Analyze the various DC bias circuits of BJT and FET	Design
			CO4	amplifier circuits	Analyze
			CO5	Design and analyze the basic logic circuits	Design
			CO6	Design and Analyze the ADDER/SUBTRACTOR circuits and conversion of one flip flop to another	Design
8	ES 352 EE	Electrical Engineering Lab	CO1	Justify the statements of basic electrical circuits	Evaluate
			CO2	Examine the performance of different electrical machines	Analyze
			CO3	Identify the electrical machines requirements	Apply
			CO4	Find the response of different electrical circuits	Remember
			CO5	Determine parameters of electrical machines and equipment	Evaluate
			CO6	Test for efficiency of electrical machines	Analyze

Coordinator

HOD

Scanned by CamScanner

METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACEDEMIC YEAR 2018 - 19

B.E IV SEMESTER

Course Outcome					
S.no	Course	Course Title	CO No.	Course Outcome	TAXONOMY
1	BS 405 MT	Applied Mathematics	CO1	Find vector spaces. subspaces. basis and dimension	Remember
			CO2	Apply numerical methods to find solutions of algebraic and transcendental equations.	Apply
			CO3	Solve ordinary differential equation by using numerical methods.	Apply
			CO4	Analyze the given data by calculating the coefficients of correlation and regression.	Analyze
			CO5	Determine the rank correlation coefficient using the specified formula.	Evaluate
			CO6	Classify types of linear programming problems and find their solutions.	Evaluate
2	PC 401 EC	Analog Electronic Circuits	CO1	Explain Different Transistor Models and their applications and Different Coupling Techniques	Understand
			CO2	Explain the Frequency response for Various Transistors	Understand
			CO3	Identify different types of negative feedback and its characteristic analysis	Apply
			CO4	Make use of positive feedback in different types of oscillators.	Apply
			CO5	Analyse different power amplifiers interms of effiency and figure of merit	Analyze
			CO6	Analyse different tuned amplifiers and their stability analysis	Analyze
3	PC 402 EC	Pulse, Digital and Integrated Circuits	CO1	Explain the response of RC, RL, RLC, Attenuator circuits for the sinusoidal, pulse, step, square, ramp inputs	Understand
			CO2	clipping, clamping circuits to various applications. Apply the concept of voltage comparator to various applications.	Apply
			CO3	Design and Analyze Bistable, Monostable and Astable Multivibrators using transistors. Analyze and Design Sweep circuits using UJT and SCR40	Analyze
			CO4	Categorize different ICs,IC pachage types. Explain DTL, TTL, ECL logic families and their characteristics	Understand

Scanned by CamScanner

			CO5	Design the interfacing circuit between CMOS and TTL logic familes, Apply the concept of transmission gate to implement various circuits	Evaluate
			CO6	Design various pulse ,digital and integrated circuits	Create
4	PC 403 EC	Probability Theory and Stochastic Processes	CO1	Explain definitions of Probability,Axioms,Joint Probability, Conditional Probability, Total Probability, Bayes' Theorem, Independent Events,	Understand
			CO2	Apply the concepts, theorems to derive probability distribution & probability density functions. Expectations,Moments & characteristic functions of	Applying
			CO3	Make use of Properties of distribution & density functions to solve Mean ,Variance for - Binomial, Poisson, Uniform, Gaussian, Exponential,	Applying
			CO4	Explain Muliple random variables i.e Joint density,Joint distribution,Central Limit Theorem, expected values of Multiple random variables.	Understand
			CO5	Explain concepts of Random process, and its properties.variance, co variance, correlation & auto correaltion.Power & cross power density	Understand
			CO6	Examine different types of Noises and response to a random signal	Evaluating
5	PC 404 EC	Electromagnetic Theory and Transmission Line	CO1	corresponding sets of Maxwell's Equations and Boundary Conditions, and use them for solving engineering problems.	Understand, Analyze
			CO2	evaluate the uniform plane wave Characteristics for several practical media of interest.	Apply, Analyze
			CO3	transmission coefficients for uniform plane wave propagation, distinguish between Brewster and Critical Angles, and acquire knowledge	Applying, Analyzing
			CO4	characterize the distortions and estimate the characteristics for different lines.	Remember, Analyze
			CO5	Analyze the RF Line features and configure them as SC, OC Lines, $\lambda/2$, $\lambda/4$ and $\lambda/8$ Lines and design the same for effective impedance transformation.	Analyze, Evaluate, Create
			CO6	Study the Smith Chart profile and stub matching features, and gain ability to practically use the same for solving practical problems.	Remember, Analyze, Create
			CO1	Synthesize popular media reports/articles discussing environmental issues, and verbally discuss and defend their positions on scientific issues	Create
			CO2	water, and air quality and suggest sustainable strategies to mitigate these impacts	Remember

Scanned by CamScanner

6	ES 406 CE	Environmental Studies	CO3	Apply mathematical concepts, including statistical methods, to field and laboratory data to study scientific phenomena.	Apply
			CO4	Design and execute a scientific project.	Create
			CO5	Understand the importance of Environmental legislation policies.	Understand
			CO6	technologies for the diminution of environmental pollutants and contaminants.	Analyze
			CO6	technologies for the diminution of environmental pollutants and contaminants.	Analyze
7	PC 451 EC	Analog Electronic Circuits Lab	CO1	Analyse BJT, FET amplifiers	Analyze
			CO2	Analyse Multivibrators	Analyze
			CO3	Understand Filter Circuits	Understand
			CO4	Identify Different Feedback Amplifiers.	Apply
			CO5	Design Oscillator circuits	Create
			CO6	Analyse Power Amplifiers.	Analyze
8	PC 452 EC	Pulse, Digital and Integrated Circuits Lab	CO1	Understand High pass and Low pass RC circuits for different time constants and verify their responses for a square wave input of given frequency.	Understand
			CO2	Study the various clipper circuits and to plot the output waveforms for a sinusoidal input of given peak amplitude	Apply
			CO3	Analyze different types of clamper circuits.	Analyze
			CO4	Design a transistor switch circuit and observe the waveforms	Analyze
			CO5	Analyze different Multivibrators and explain the operation of the same	Evaluate
			CO6	Design different Sweep circuits and able to generate sweep waveform	Apply

Coordinator

HOD

Scanned by CamScanner

METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
ACEDEMIC YEAR 2018 - 19

B.E V SEMESTER

Course Outcome					
S.n	Course	Course Title	CO No.	Course Outcome	TAXONOMY
1	PC501EC	Linear ICs and Applications	CO1	Understand the internal operation of Op-Amp and its specifications	Understand
			CO2	Analyze and design linear applications like adder, subs tractor, instrumentation amplifier and etc. using Op-Amp.	Analyze
			CO3	Classify various active filter configurations based on frequency response and construct using 741 OpAmp	Classify
			CO4	Operate 555 timers in different modes like bistable, monostable and astable operations and study their applications.	Operate
			CO5	Different techniques of A to D and D to A conversion techniques	Diffrentiate
			CO6	Understand the internal operation of Voltage regulators by using IC and its specifications.	Understand
2	PC502EC	Analog Communicatio n	CO1	systems	Understand
			CO2	Demonstrate and contrast the different Angle modulation schemes	Analyze
			CO3	Illustrate and compare the pulse modulation systems	Apply
			CO4	Interpret with differentiate types of transmitters and receivers used for particular application.	Understand
			CO5	Identify the noises present in continuous wave modulation systems and analyze Signal to Noise ratio in each system.	Analyze
			CO6	different modulation systems and method to implement different communication systems.	Apply
			CO1	Students will be able to identify the importance of DSP in real time processing	Apply
			CO2	Students will be able to compute DFT & apply its properties in problem solutions , also optimize the calculation using FFT	Apply

Scanned by CamScanner

3	PC503EC	Digital Signal Processing	CO3	Students will be able to design, evaluate & construct FIR filters to satisfy desired frequency response by hand	Create
			CO4	Students will be able to design, evaluate & construct IIR filters on the basis of an analogue design by hand	Create
			CO5	Students will be able to compute & comprehend sampling rate conversions & their applications	Evaluate
			CO6	Students will be able to understand the importance of DSP processor applications and also comprehend the architecture.	Apply
4	PC504EC	Automatic Control Systems	CO1	Students will be able understand control system fundamentals & build mathematical model ling using transfer function	Understand
			CO2	Students will be able to construct Root locus Technique and thus assess system stability in time domain	Construct
			CO3	Students will be able to construct Bode plots and thus assess system stability in frequency domain	Construct
			CO4	Students will be able to learn the importance of compensation networks in control systems	Importance
			CO5	Students will be able to understand the digital control system and its importance	Importance
			CO6	Students will be able to understand state space representation and hence determine stability, controllability and observability	Determine
5	PC505EC	Computer Organization & Architecture	CO1	Explain Mathematical operations on Fixed point & Floating Point Digital Data and apply on digital arithmetic algorithms	Apply
			CO2	Instruction Formats, Instruction Cycle , micro programmed control.	Understand
			CO3	Understand Central processing unit of a computer Different instructions for Data Transfer and manipulation.	Understand
			CO4	Explain different types of Processing Techniques, CISC –RISC Processors and latest trends in Microprocessors	Understand
			CO5	modes of transfer , Asynchronous data transfer, DMA and I/O Processor.	Understand
			CO6	Understand memory hierarchy, different types of memories used in computers and memory management	Understand

Scanned by CamScanner

6	PC506EC	Digital System Design with Verilog HDL	CO1	Describe Verilog HDL and Write a verilog HDL code for the digital circuits in gate level and dataflow modeling.	Understand
			CO2	Write a verilog HDL code for the digital circuits in switch level and behavioral modeling	Apply
			CO3	Analyze and synthesize synchronous sequential circuits and design the sequence detector using Moore and Mealy FSM	Analyze
			CO4	Analyze the Asynchronous sequential circuits & describe the ASM chart for the digital circuits	Analyze
			CO5	Explain SPLDS, CPLDs and Design various combinational circuits by using PLDs	Apply
			CO6	Explain FPGA and ASIC and describe ASIC / FPGA design flow	Evaluate
7	MC901EG	Gender Sensitization	CO1	gender in contemporary India.	Understand
			CO2	psychological and legal aspects of gender through discussions, facts, everyday life, literature and film	Apply
			CO3	To analyze how gender discrimination works in our society and how to counter it.	Analyze
			CO4	To identify and plan better ways of working and living together as equals.	Apply
			CO5	To develop a sense of appreciation of women in all walks of life	Evaluate
			CO6	To enable in developing good interpersonal relationships at work places and to develop a sustain interest in gender equality	Create
8	PC551EC	IC Applications lab	CO1	Study and performance 0f various parameters of op-amp & Construct linear and non-linear applications circuits .	Apply
			CO2	Design and Analyze different filters & their frequency comparision. (theoritical & practical)	Create,Analyze
			CO3	Design different multivibrators and their comparision. (theoritical & practical) by using IC 555	Apply
			CO4	Design sequential circuit synchronous & asynchronous counters	Apply
			CO5	Verify Flip-Flop conversions and latches using gates and ICs.	Understand

Scanned by CamScanner

			CO6	transfer Characteristics of TTL and CMOS IC gates and open collector drain gates.	Apply
9	PC552EC	Systems and Signal Processing Lab	CO1	Illustrate basics of signal processing using Matlab Software	Understand,Analyze
			CO2	Illustrate various Signal Processing Algorithms like DFT,IDFT,FFT,IFFT	Analyze
			CO3	Analyze FIR Filters with specific magnitude and phase requirements	Analyze
			CO4	Analyze IIR Filters with specific magnitude and phase requirements	Analyze
			CO5	Illustrate basics of Multi rate signal processing	Understand
			CO6	Analyze digital filters using DSP Processors	Understand
10	PC553EC I	Industrial Visit	CO1	It help students gain first hand information regarding functioning of the Industry	Understand
			CO2	Provides an opportunity to plan, organize and engage in active learning experiences both inside and outside the classroom	Apply
			CO3	Industry.Helps them to see their future place in the working world	Analyze
			CO4	This also serves as a relation building process between institutes and industry	Evaluate
			CO5	Helps to enhance their interpersonal skills and communications	Analyze
			CO6	Using the case study approach within the visit to bring out critical thinking among students	Create

Coordinator

HOD

Scanned by CamScanner

METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACEDEMIC YEAR 2018 - 19

B.E VI SEMESTER

Course Outcome					
S.n	Course	Course Title	CO No.	Course Outcome	TAXONOMY
1	PC601EC	Digital Communication	CO1	Understand the concepts different types of digital modulation techniques PCM, DPCM, DM and ADM and compare their performance by SNR.	understanding
			CO2	Able to learn the classification of channels and Source coding methods	Remembering
			CO3	Analyze the different types of Error control codes along with their encoding/decoding algorithms	Analyzing
			CO4	Analyze performance of different Digital Carrier Modulation schemes of Coherent and Non-coherent type based on Probability of error	Analyze
			CO5	Understand the base band modulation and matched filter concepts	understand
			CO6	Applying the generation of PN sequence using Spread Spectrum and characterize the Acquisition Schemes for Receivers to track the signals	Apply
2	PC602EC	Antennas and wave propagation	CO1	Illustrate the basic principles of antennas and learn the antenna terminology.	Understand
			CO2	Design different types of wire antennas and make proficient in analytical skills for understanding practical antennas.	Apply
			CO3	Design different types of antennas for various frequency ranges and get updated with latest developments in the practical antennas.	Create
			CO4	Apply the principles of antennas, to design antenna arrays and measure various parameters of antennas.	Analyse
			CO5	Identify and understand the suitable modes of Radio Wave propagation used in current practice.	Evaluate
			CO6	Analyze the structure of atmosphere for the wave propagation	Analyse
			CO1	microcontrollers. Learn about 8086 Microprocessor and 8051 Microcontroller- different types of addressing modes, instruction set and	Understand
			CO2	Build Interfacing diagram of memory, peripherals using 8086 Microprocessor and 8051 Microcontroller.	Apply

Scanned by CamScanner

3	PC603EC	Microprocessor and Microcontroller	CO3	Apply 8086 Microprocessor and 8051 Microcontroller instruction set for writing simple assembly language programs.	Apply
			CO4	Explain the algorithm and program for interfacing different peripherals to 8086 microprocessor and 8051 Microcontroller.	Analyse
			CO5	Write an Assembly/C language program for interfacing different peripherals by using different software tools to 8086 microprocessor and 8051 Microcontroller.	Evaluate
			CO6	Design Interfacing of real time applications like ADC, DAC, LCD and stepper motor with 8086 microprocessor and 8051 microcontroller.	Create
4	HS604EC	Managerial Economics & Accountancy	CO1	Understand the responsibility of a manager and fundamental concepts of Managerial Economics.	Understanding
			CO2	Understand demand analysis and determinants of demand.	Understanding
			CO3	Analyse production & markets and compute the future sales level.	Analysing
			CO4	Understand the features, merits, uses & limitations of Pay back , ARR,NPV, PI & IRR methods of capital budgeting.	Understanding
			CO5	Understand the Principles of accounting and prepare Journal, Ledger, Trial balance, manufacturing	Understanding
			CO6	Analyse the analytical problems that arise in day to day decisions.	Analysing
5	PE – I (PE 672 EC)	Data Communication and computer networking	CO1	communications using the open Systems interconnect (OSI) model for layered architecture.	Understanding
			CO2	Students able to select network protocols and internetworking based on application requirement	Applying
			CO3	Students able to Understand the Network security and Internet applications	Understanding
			CO4	Students able to Understand the concepts of switched communication networks	Understanding
			CO5	Students able to Understand the performance of different layer protocols for error and flow control	Understanding
			CO6	Students able to Understand various routing protocols and network security.	Understanding

Scanned by CamScanner

6	OE – 1 (OE601CE)	Disaster Management	CO.1	Analyze the different public health aspects of disaster events at local and global levels. even when limited information is available.	Analyze
			CO.2	organizational aspects influencing vulnerabilities and capacities to face disasters and to know different types of environmental hazards	Evaluate
			CO.3	theoretically and practically in the processes of disaster management and relate their interconnections.	Analyze
			CO.4	Interpret endogenous and exogenous hazards and their harmful effects to the environment through case studies in India.	Understand
			CO.5	Organize strategies for mitigation in future scenarios with available risk reduction techniques.	Applying
			CO.6	into the potential and limitations of science and its role in society and people's responsibility for how it is used.	Understand
7	PC 411 EC	Optical Fiber Communication(Elective - I)	CO1	Students will able to learn concepts of propagation through optical fiber modes and configurations.	Understanding
			CO2	Students will able to learn Losses in fibers and dispersion through optical fiber	Applying
			CO3	Students will able to understand the operating principles of light sources and detectors used in optical transmitters and receivers	Creating
			CO4	Students will able to analyze and design an optical link in view of loss and dispersion	Analysing
			CO5	Students will able to learn the concepts of different types of networks.	Evaluating
			CO6	Students will able to learn the different types of detectors with their responses	Analyse
8	PC652EC	Microprocessor and Microcontroller Lab	CO1	Understand the architecture and its components of 8086 Microprocessor & 8051 Microcontrollers and develop algorithms for simple programs.	Understand
			CO2	Apply the instruction set of 8086 Microprocessor & 8051 Microcontrollers and develop simple programs.	Apply
			CO3	Explain the usage of Branching, string instructions and Assembler Directives of 8086 Microprocessor for String Manipulations.	Apply
			CO4	Design and Develop interfacing applications by input/output, serial communication devices using 8086 Microprocessor	Evaluate

Scanned by CamScanner

			CO5	Design algorithms and different programs for SFRs using C cross compilers for 8051 Microcontroller	Analyse
			CO6	Design and Develop interfacing application by input/output ports, serial communication devices using C cross compilers for 8051	Create
9	MC (MC953 SP)	Mandatory Course (sports)	CO1	Students can develop an understanding in various sports and games	Create
			CO2	Students can create an environment .this encourages the students to actively participate in various sports and games	Create
			CO3	Students can develop the spirit of sportsmanship & leadership qualities	Create
			CO4	Students can analyze the benifits of physical exercises to maintain a good physical and mental health .	Analyse
			CO5	Stuents can make use of sports for development of concentration	Apply
			CO6	Students can identify thier career in variuos sports and games	Apply
10	PC653EC	Summer Internship*	CO1	Students can Able to select a Pratical problem and find solution by using current technologies	Understand
			CO2	Student can go through training for implementing the project	Apply
			CO3	Students can Able to design/develop a small and simple product in hardware or software.	Design
			CO4	Students can Able to complete the task or realize a pre-specified target, with limited scope	Design
			CO5	problem and evaluate these alternatives with reference to pre-specified criteria	Apply
			CO6	Students can Able to implement the selected solution and document the same	Create
11	PC651EC	communication lab	CO1	Understand and simulate modulation and demodulation of AM and FM	Apply
			CO2	Construct pre-emphasis and de-emphasis at the transmitter and receiver respectively	Creat
			CO3	Understand and simulate the PAM,PWM&PPM circuits	Apply
			CO4	Understand baseband transmission (i.e., PCM, DPCM, DM, and ADM) generation and detection	Analyse

Scanned by CamScanner

CO5	Understand and simulate digital modulation (i.e., ASK, FSK, BPSK,) generation and detection	Analyse
CO6	Generation and Detection of PCM and Digital modulation Schemes (ASK, FSK, BPSK) by using MATLAB	Apply

Coordinator

HOD

Scanned by CamScanner

METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACEDEMIC YEAR 2018 - 19

B.E IV YEAR - I SEMESTER

Course Outcomes					
S.no	Course Code	Course Title	CO No.	Course Outcome	TAXONOMY
1	EC 401	Microwave Engineering	CO1	Describe the propagation characteristics of Guided waves in different modes	Understand, Analyze
			CO2	Evaluate different characteristics for Rectangular & Circular Waveguides &Cavity Resonators.	Apply, Analyze
			CO3	Analyze microwave circuits using scattering parameters	Apply, Analyze
			CO4	Design and analysis of microwave guides	Analyze ,Create
			CO5	Understand the principle, operation and characteristics of microwave tubes and oscillators	Remember, Analyze
			CO6	Analyze the principle, operation and characteristics of microwave solid state devices including strip lines.	Analyze, Evaluate
2	EC 402	VLSI Design	CO1	Students will able to learn MOS Technology	Understand
			CO2	Students will able to Make use of Different CMOS Technologies	Apply
			CO3	Students will able to Design Layouts for Low Power Gates	Create
			CO4	Students will able to Design Combinational and Sequential Circuits	Create
			CO5	Students will able to know about Interconnect Concept	Evaluate
			CO6	Students will able to Analyse Single Stage CMOS amplifiers using current mirrors	Analyze
3	EC 403	Electronic Instrumentation	CO1	Desribe the fundamental concepts and principles of instrumentation	Understand
			CO2	Identify and explain different types of transducers	Understand
			CO3	Draw and interpret types of transducers	Analyze
			CO4	Design and analyse digital voltmeters and prioritarize the instruments	Design
			CO5	Identify and classify types of biomedical instruments	Understand
			CO6	Understanding of electronic instrumentation and measurement in the real time world	Understand

Scanned by CamScanner

4	EC 411	Elective – I (Optical Communicatio n)	CO1	Students will able to learn concepts of propagation through optical fiber modes and configurations.	Understand
			CO2	Students will able to learn Losses in fibers and dispersion through optical fiber	Apply
			CO3	Students will able to understand the operating principles of light sources and detectors used in optical transmitters and receivers	Create
			CO4	Students will able to analyze and design an optical link in view of loss and dispersion	Analyze
			CO5	Students will able to learn the concepts of different types of networks.	Evaluate
			CO6	Students will able to learn the different types of detectors with their responses	Analyze
5	EC 421	Elective – II(Embedded Systems)	CO1	procedure of Processors, characteristics, and design process in the embedded domain.	Understand
			CO2	for programming embedded system design. Apply architectural features of ARM processor for embedded products.	Apply
			CO3	Make use of serial, parallel bus protocols for developing of embedded system products. Also Apply network enabled protocols.	Apply
			CO4	design of an Embedded System. Examine all software development tools for embedded system.	Analyse
			CO5	Know about the RTOS based embedded system design concepts. Compare Testing methods and Debugging techniques.	Evaluate
			CO6	applying steps in design process for hardware and software of embedded product.	Create
6	ME 472	Industrial Administration and Financial Management	CO1	structures, and functions of management and the importance of plant layouts.	Understand
			CO2	study) techniques for calculation of standard time in a plant, and the concept of performance rating factors & types of ratings.	Apply
			CO3	control, Production Planning control and by use of control charts Evaluate whether the quality of a product or process in a plant.	Evaluate
			CO4	Programming, Assignment and Project management & Material Management techniques for e optimum utilization of the resources.	Apply

Scanned by CamScanner

			CO5	and apply break even analysis and different techniques of capital budgeting involved in running an industrial organization.	Apply
			CO6	and apply break even analysis and different techniques of capital budgeting involved in running an industrial organization.	Apply
7	EC 431	Microwave Lab	CO1	Analyze frequency, Wave length, SWR and Impedance for Reflex klystron Oscillator by using its equation	Analyze
			CO2	Evaluate of mode characteristics of Reflex klystron and V-I Characteristics of Gunn diode.	Evaluate
			CO3	Analyze of the characteristics of Circulator, Isolator, Directional Coupler, Tees like (Magic tee, E & H plane tees) using the Scattering parameters.	Analyze
			CO4	To analyze the radiation pattern of antenna	Analyze
			CO5	Generate the Radiation pattern of different antennas like Yagi-Uda and Horn Antenna and measure the gain of the antennas.	Analyze
			CO6	Familiarize with the EM simulation software	Design
8	EC 432	Embedded C and VLSI Design Lab	CO1	Understand different architecture of ARM processor, its components and Concept of RTOS	Understand
			CO2	Develop algorithms for simple programs based on RTOS using embedded C for ARM Processors	Analyze
			CO3	Design and Develop interfacing Real Time applications using input/output pins, serial communication devices for ARM processors	Create
			CO4	Understand Layout design Rules	Understand
			CO5	Make use of Layouts	Apply
			CO6	Design of Simple Gates using Layouts	Create
9	EC 433	Project Seminar	CO1	Student able to choose intrested topic and subject area in the wide spectrum of course	Understand
			CO2	Students are able to identify the applicability of modern software tools and technology	Create
			CO3	Students are able to deliver presentation based on the preparation	Analyse
			CO4	Students are able to develop communication skills and stage performance	Understand
			CO5	Students are able to present the results from the work comprehensively through presentation.	Understand

Scanned by CamScanner

			CO6	Students are able to correct himself to improve presentation skills.	Create

Coordinator

JIOD

Scanned by CamScanner

METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
ACEDEMIC YEAR 2018 - 19

B.E IV YEAR - II SEMESTER

Course Outcomes

S.no	Course Code	Course Title	CO No.	Course Outcome	Taxonomy
1	EC 451	Data Communication Computer Networks	CO1	Students able to get conceptual foundation for the study of data communications using the open	Understand
			CO2	Students able to select network protocols and internetworking based on application requirement	Apply
			CO3	Students able to Understand the Network security and Internet applications	Understand
			CO4	Students able to Understand the concepts of switched communication networks	Understand
			CO5	Students able to Understand the performance of different layer protocols for error and flow control	Understand
			CO6	Students able to Understand various routing protocols and network security.	Understand
2	EC 464	Elective – III (Radar Systems)	CO1	Demonstrate and understand the factors detecting the radar using radar range equation	Understand
			CO2	Ilustrate various types of radars and their variation displays in radars	Understand
			CO3	Explain different types of MTI radars and Non coherent MTI radar	Understand
			CO4	Design radar systems to undertake measurements and verify the performance of radars	Design
			CO5	Design of radar antennas for various radar systems	Design
			CO6	Ilustrate and differentiating on various radar tracking methods of radar systems	Understand
3	CE XXX	Elective – IV (Disaster Mitigation and Management)	CO1	Attain knowledge on various types, stages, phases in disaster with international & national policies & programmes with reference to the disaster	Understand
			CO2	Understand various types of natural disaster, their occurrence, Effects, Mitigation and Management Systems in India	Understand
			CO3	Understand different types of manmade disasters, their occurrence, Effects, Mitigation and Management Systems in India	Understand
			CO4	Explain the utility of geographic information systems (GIS), Remote sensing technology in all phases of disaster mitigation and management	Understand

Scanned by CamScanner

			CO5	Understand on the concepts of risk, vulnerability, warning and forecasting methods in disaster management	Understand
			CO6	Understand the role of education and training in disaster prevention.	Understand
4	EC 481	General Seminar	CO1	Students are able prepare comprehensive report based on literature survey Topics related to	Understand
			CO2	Students are able to identify the applicability of modern software tools and technology	Create
			CO3	Students are able to deliver presentation based on the preparation	Analyse
			CO4	Students are able to develop communication skills and stage performance	Understand
			CO5	Students are able to answer queries posed by the listeners.	Understand
			CO6	Students are able to correct himself to improve presentation skills.	Create
5	EC 482	Project	CO1	Students are able to prepare comprehensive report based on literature survey	Create
			CO2	Students are able to select a suitable problem relevant to power systems with an attention to	Remember
			CO3	Students are able to find solution either through simulation or through practical work.	Analyse
			CO4	Students are able to get awareness about industry standards and develop expert connections to validate the project outcome	Apply
			CO5	Students are able to present the results from the work comprehensively through presentation.	Evaluate
			CO6	Students are able to present his/her work in a conference or publish the work in a peer	Evaluate

Coordinator

HOD

Scanned by CamScanner

Methodist College of Engineering and Technology

Department of Electrical and Electronics Engineering

AY: 2018-19

Course Outcomes

III Semester

Course Code	Course Name	Course Outcomes	Taxonomy
PC301EE	ELECTRICAL CIRCUITS-I	**Understand** network analysis, techniques using mesh and nodeanalysis	Understand
		Evaluate steady state and transient behavior of network for AC excitations.	Evaluate
		Analyze electric circuits using network theorems	Analyze
		Understand the concept of coupled circuits and poly-phasecircuits	Understand
		Analyze the transient behaviour of electrical networks for various excitations	Analyze
		Discuss a.c and d.c. theorems, Elaborate steady state and transient analysis of single phase and 3-phase circuits	Create
PC302EE	ELECTROMAGNETIC FIELDS	**Understand** the vector calculus for electromagnetism.	Understand
		Apply the electric fields for simple configurations under staticconditions	Apply
		Analyze and apply the static magneticfields.	Analyze
		Analyze the Electrical Circuits with the concept of Network topology	Analyze
		Understand Maxwell's equation in different forms and differentmedia	Understand
		Understand the propagation of EMwave	Understand
PC303EE	DIGITAL ELECTRONICS LOGIC DESIGN	**Understand** and apply the Boolean algebra, including CMOS gates and arithmetic circuits.	Understand
		Apply combinational digital circuits for logic functions	Apply
		Use the concepts of Boolean Algebra for the analysis	Analyze
		Design various A/D and D/A converters	Create
		Design various logic gates starting from simple ordinary gates to complex programmable logic devices & arrays.	Create

Scanned with CamScanner

		Design of sequential logic circuits	Create
BS301MT	MATHEMATICS-III	**Find** solutions of first order and second order partial differential equations.	Remember
		Apply Fourier series to find solutions of partial differential equations.	Apply
		Analyze a given function in the form of Fourier series	Analyze
		Solve functions of complex variables using Cauchy Reimann equations and Cauchy Integral Theorem	Apply
		Determine the analyticity of a complex functions and expand functions as Taylor and Laurent series.	Evaluate
		Evaluate real integrals using concept of residues, poles and residue theorem .	Evaluate
ES323ME	PRIME MOVERS AND PUMPS	**Understand** the fundamental aspects of fluid mechanics and thermal sciences	Understand
		Understand the basic types of hydraulic turbines, boilers, gas turbines and steam turbines their components, operation and their rated and off design performance characteristics	Understand
		Analyze the working principle of reciprocating pumps, centrifugal pumps, their performance over wide range of operations	Analyze
		Evaluate the efficiency, work done and power consumption of various types of Hydraulic turbines and pumps	Evaluate
		Evaluate the efficiency, heats input in boiler and work done of various types of steam turbines.	Evaluate
		Evaluate the efficiency, heats input in Combustion Chamber and work done of various types of gas turbines.	Evaluate
MC916CE	ENVIRONMENT SCIENCES	**Synthesize** popular media reports/articles discussing environmental issues, and verbally discuss and defend their positions on scientific issues	Create
		List common and adverse human impacts on biotic communities, soil, water, and air quality and suggest sustainable strategies to mitigate these impacts	Remember
		Apply mathematical concepts, including statistical methods, to field and laboratory data to study scientific phenomena.	Apply
		Design and execute a scientific project.	Create
		Understand the importance of Environmental legislation policies.	Understand
		Categorize the types of environmental pollution and the various treatment	Analyse

Scanned with CamScanner

		technologies for the diminution of environmental pollutants and contaminants.	
ES361ME	MECHANICAL ENGINEERING LAB	**Understand** the working principles of Engines	Understand
		Determine the power developed and efficiencies of engines	Apply
		Determine the flash and fire points of a fuel.	Apply
		Determine the efficiencies of various pumps and turbines	Apply
		Understand the viscosity of various oils	Understand
		Understand valve timing and port timing diagrams	Understand
ES362 EC	ELECTRONIC ENGINEERING	**Calculate** ripple factor, efficiency and % regulation of rectifier circuits	Apply
		Draw Characteristics of different diodes	Create
		Draw single and multistage amplifier circuits	Create
		Analyze feedback amplifiers and BJT oscillator circuits	understand
		Understand negative and positive feedback circuits	understand
		Design single, multi-stage, wave shaping and power amplifier circuits	Evaluate

(K. Pulla Reddy)

Coordinator

Head of the Department

Head of Department
Department of EEE
Methodist College of Engg & Tech.
Abids, Hyderabad-500 001.

Scanned with CamScanner

Methodist College of Engineering and Technology

Department of Electrical and Electronics Engineering

Course Outcomes

AY: 2018-19 **V Semester**

Course Code	Course Name	Course Outcomes	Taxonomy
PC502EE	ELECTICAL MACHINES-II	**Summarize** the construction, working principle and performance of Transformers, 1-phase and 3-phase Induction Motors	Understand
		Determine the construction, working principle, performance, starting and speed control of 1-phase and 3-phase Induction Motors.	Evaluate
		Identify the construction, working principle and performance of Transformers and Induction motors.	Apply
		Examine the rating, testing and applications of single phase, three phase transformers.	Analyze
		Adapt the knowledge of Rotating magnetic field theory, Double field revolving theory	Create
		Find the equivalent circuit diagram of transformer, three-phase induction motor and single-phase induction motor	Remember
PC503EE	FACTS DEVICES	**Outline** the concepts of FACTS devices , types of FACTS devices	Understand
		Compare between Shunt and series and Current and Voltage source controllers	Understand
		Develop the understanding of suitability of the controllers in power systems.	Apply
		Compare the reactive power compensation between static shunt and static series compensators	Analyze
		Survey the range of static shunt , static series and Combined compensators	Analyze
		Illustrate the application of FACTS devices	Understand
PC501EE	POWER SYSTEMS-II	**Classify** the transmission lines and discuss the performance of short, medium and long transmission lines.	Create
		Define the occurrence of corona, corona losses and the methods to minimize corona losses in the transmission. lines	create
		Choose per unit values and apply for the analysis of symmetrical fault calculations.	Apply
		Classify and measure the different types of faults occurring on overhead transmission lines and calculate fault currents.	Evaluate

Scanned with CamScanner

		Elaborate the reasons for the voltage variations, and Improve the voltage at the receiving end side.	Create
		Explain the causes of over voltages, natural impedances of different junction of lines and Develop methods to reduce transients in transmission lines.	Apply
PC505EE	ELECTRICAL MEASUREMENTS & INSTRUMENTATION	**Understand** different types of measuring instruments of voltage, current, Power factor, power, energy and magnetic measurements.	Understand
		Understand different types of measuring instruments of their construction, operation and Characteristics	Understand
		Identify the instruments suitable for typical measurements	Understand
		Apply the knowledge about transducers and instrument transformers to use them effectively.	Apply
		Develop an understanding of construction and working of different AC and DC bridges and its applications	Evaluate
		Identify the instruments suitable for typical measurements	Understand
PC504EE	LINEAR CONTROL SYSTEMS	**Understand** the concept of the terms control systems, feedback, Mathematical modeling of Electrical and Mechanical systems.	Understand
		Explain the time domain and frequency response analysis of control systems.	Evaluate
		Apply the knowledge of various analytical techniques used to determine the stability of control systems.	Apply
		Understand the importance of design of compensators	Create
		Demonstrate controllability and observability of modern control systems.	Understand
		Understand and develop the state space representation of control systems.	Apply
PC505EE	DIGITAL SINGAL PROCESSING & APPLICATIONS	**Classify** discrete-time signals and discrete-time systems and determine the response of discrete-time system to a given input.	Understand
		Solve the frequency response of the discrete-time system by applying z-transform to the systems	Apply
		Determine the Discrete-Time Fourier Transform of discrete-time systems	Evaluate
		Find the Discrete Fourier Series coefficients of discrete-time signals and represent discrete-time	Remember

Scanned with CamScanner

		systems in terms of Discrete Fourier Series coefficients	
		Modify the method of evaluating the Discrete Fourier Transform of discrete-time signals by using Fast Fourier Transform, thereby reducing the computational efforts	Create
		Analyze the characteristics of digital Finite Impulse Response (FIR) filters and digital Finite Impulse Response (FIR) filters and design digital Finite Impulse Response (FIR) filters and digital Infinite Impulse Response (IIR) filters	Analyze
PC553EE	CIRCUITS & MEASUREMENTS LAB	**Examine** the KCL, KVL theorems for a given circuit theoretically and practically	Analyze
		Simplify the complicated circuits using Thevenin's, Norton's and Superposition theorems.	Analyze
		Formulate the current and voltage equations for two port networks.	Create
		Estimate the resistance, inductance and capacitance using various bridges.	Create
		Measure the energy, power and power factor of the given circuits using wattmeter, ammeter and voltmeter	Evaluate
		Make use of CRO for finding out the amplitude, frequency and phase of waveforms	Apply
PC552EE	POWER ELECTRONICS LAB	Classify and **design** different triggering circuits of SCR and MOSFET.	Create
		Analyze different commutation circuits of SCR	Analyze
		Understand and **make use of** controlled rectifiers to control the speed of DC motors	Apply
		Understand the **applications** of cycloconverters and AC voltage controllers	Apply
		Analyze and develop pulses for IGBT based inverters	Analyze
		Design and Simulate different circuits of power electronics using MATLAB software	Create
PC551 EE	ELECTRICAL MACHINES-I LAB	**Apply** and **Conclude** the principles of Electrical Machines through laboratory experimental work.	**Evaluate**
		Construct the circuit to perform experiments, measure, analyze the observed data & come to a	**Apply**

Scanned with CamScanner

		conclusion.	
		Organize reports based on performed experiments with effective demonstration of diagrams and characteristics /graph	**Apply**
		Demonstrate the starting & speed control of various DC motors	**Understand**
		Determine efficiency & voltage regulation of electrical machines by various test.	**Evaluate**
		Compare the performance characteristics of different electrical machines.	**Analyze**

(K. Pulla Reddy)
Coordinator

Head of the Department

Head of Department
Department of EEE
Methodist College of Engg & Tech,
Abids, Hyderabad-500 001.

Scanned with CamScanner

Methodist College of Engineering and Technology

Department of Electrical and Electronics Engineering

Course Outcomes

AY:2018-19 **VII Semester**

Course Code	Course Name	Course Outcomes	Taxonomy
PC403EE	ELECTRICAL MACHUNE DESIGN	**Demonstrate** the knowledge of basic conducting, insulating and magnetic materials required for design of rotating electrical machines and Transformers	Understand
		Distinguish the differences in different manufacturing practices of dc and ac machines.	Analyze
		Identify and assess the general overall design parameters of the machines and transformers based on rating name plates.	Apply
		Identify suitable alternatives based on key requirements spelt out in the query.	Apply
		Knowledge about the various types of electrical machines design for ac & dc machines to choose for their applications.	Apply
		Determine the use of computer in CAD / iterative design of electrical machines for optimum performance.	Evaluate
PC401EE	POWER SYSTEM OPERATION AND CONTROL	**Solve** load flow by appropriate modeling of the given power system and formulation of Ybus.	Apply
		Evaluate generation mix for economic operation with and without transmission losses	Evaluate
		Explain load frequency control and estimate the frequency deviation through modeling.	Understand
		Analyse and describe different types of power system stability and establish SSSL.	Analyse
		Identify various methods of voltage control and study the reactive power compensation.	Apply
		Design the railway steel bridges and bridge bearings.	Create
PE402EE	ELECTRIC DRIVES AND STATIC CONTROL	List different loads and **Illustrate** four quadrant operations ,steady state and transient analysis and to control/modify speed torque characteristics of different DC drives	Understand
		Classify single quadrant, two quadrant, four quadrant operations braking and starting methods of DC drives and Speed control methods of AC and DC drives	Understand
		Make use of static control for DC drives and closed loop operation of DC motors and solve problems on it and understand special motors like BLDC and SRM drives and their applications	Apply

Scanned with CamScanner

		Make use of Static control for AC drives like Induction and Synchronous motor drives and Construction of different types of Scherbius and Kramer drives for speed and torque control of drives.	Apply
		Analyze different topologies to Power electronic drives (PWM,VFI,CSI) and to Modify Power electronic circuits according to real time applications	Analyze
		Determine the control parameters (with the help of numerical) for DC and AC drives by using Mathematical equation	Evaluate
PC406EE	POWER QUALITY	**Formulate** the network matrices using Graph Theory and Model the power system components.	Apply
		Apply Load flow analysis to an Electrical Power Network and interpret the results of the analysis	Apply
		Analyse different types of Faults in Power System.	Analyse
		Compare Symmetrical and Unsymmetrical Faults in power system.	Analyse
		Identify Steady state and transient state stability analysis in power system.	Understand
		Apply Load flow analysis to an Electrical Power Network and interpret the results of the analysis	Apply
EE431	ELECTRICAL SIMULATION LAB	**Compose (Write)** MATLAB code using some basic commands.	Create
		Develop MATLAB code for analyzing power system network by obtaining line parameters, Z, Y matrices, and Economics of power systems	Apply
		Simulate the concepts of Electrical Circuits, to **design** a led, lag, led and lag compensator and obtain the characteristics by Control Systems and interpret data.	Create
		Demonstrate (Determine) the knowledge of programming environment, compiling, debugging, linking and executing variety of programs in MATLAB.	Evaluate
		Demonstrate ability to **develop** Simulink models for various electrical systems.	Apply
		Validate simulated results from programs/Simulink **models** with theoretical calculations.	Apply
EE432	MPMC LAB	**Adapt** the knowledge of Architecture of 8086 and 8051, writing assembly language programming for different applications	Create
		Explain types of microcontrollers and their applications	Understand
		Develop programs to run on 8086 microprocessor based systems	Apply
		Define the techniques for faster execution of instructions, improve speed of operations and enhance performance of microprocessors	Remember
		Interpret the difference between Microprocessors and Microcontrollers	Evaluate
		Simplify and design systems using memory chips and	Create

Scanned with CamScanner

		peripheral chips for 16-bit 8086 microprocessors	
EE433	POWER SYSTEMS LAB	**Interpret** positive, negative and zero sequence Impedance of Transformer and Alternator	Understand
		Analyze the performance of transmission lines	Analyze
		Determine the dielectric strength of oil and the efficiency of string insulators	Evaluate
		Explain Voltage and current relay settings	Understand
		Measure the capacitance of three core cable	Evaluate
		Understand the operation Differential protection of transformer	Understand
EE434	PROJECT SEMINARS	**Demonstrate** the ability to synthesize and apply the knowledge and skills acquired in the academic program to real-world problems	Understand
		Evaluate different solutions based on economic and technical feasibility	Evaluate
		Effectively **plan** a project and confidently perform all aspects of project management	Create
		Demonstrate effective written and oral communication skills	Understand
		Expose the students to industry practices and team work	Evaluate
		Enhance practical and professional skills.	Evaluate

(Dr. CK. Pulla Reddy)
Coordinator

Head of the Department

Head of Department
Department of EEE
Methodist College of Engg & Tech.
Abids, Hyderabad-500 001.

Scanned with CamScanner

METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY
Department of Electrical and Electronics Engineering

Course Outcomes

AY: 2018-19 IV Semester

Course Code	Course Name	Course Outcomes	Taxonomy
PC401EE	ELECTRICAL CIRCUITS -II	**Apply** Fourier series representation to electrical networks	Apply
		Evaluate of Laplace transform of common time functions and electrical networks	Evaluate
		Explain given electrical circuits in terms of ABCD, Z, Y & h- Parameter model and solve the circuits	Evaluate
		Analyse the Electrical Circuits with the concept of Network topology	Analyze
		Classify different types of network functions	Understand
		Synthesize the RL and RC circuits	Create
PC402EE	ELECTRICAL MACHINES-I	**Identify** different parts of a DC machine & understands its operation	Understand
		Operation of the transformers in the energy conversion process.	Analyze
		Carry out different testing methods to predetermine the efficiency of DC machines	Create
		Understand different excitation and starting methods of DC machines	Evaluate
		Apply different voltage and speed control methods a DC machines	Apply
		Identify different parts of a DC machine & understands its operation	Understand
PC403EE	POWER SYSTEMS-I	**Explain** to the power /Energy demand in the form of graph Base Load and Peak Load	Understand
		Formulate A.C and D.C distribution networks for necessary variable calculation	Create
		Make use of Understand and acquire knowledge about various power generation.	Apply
		Discuss to Ability of various power sources for generation of power Merit/Demerits	Create
		Analyze to Supports sag and tension and String efficiency.	Analyze
		Modeling and calculating of transmission line parameters and power system components for a specified system and application	Analyze

Scanned with CamScanner

PC404EE	POWER ELECTRONICS	**Identify** and examine different power semiconductor switching devices and to draw its characteristics.	Analyze
		Illustrate the various power switching devices, characteristics and applications.	Understand
		Design different types of power electronic converters, choppers, AC voltage controller and Cyclo-Converter.	Create
		Determine and identify the characteristic points of power electronics devices.	Evaluate
		Find the performance of power electronic devices.	Remember
BS401MT	MATHEMATICS-IV	**Solve** non linear equations, system of linear equations and ordinary differential equations numerically.	Apply
		Evaluate certain types of improper integrals.	Evaluate
		Find Fourier transforms, Fourier Sine,Cosine Transforms, Fourier Integrals of functions	Remember
		Solve problems of F, Z-transforms	Apply
		Apply various probability distributions to solve practical problems, to estimate unknown parameters of populations and apply the tests of hypotheses.	Apply
		Perform a regression analysis and to compute and interpret the coefficient of correlation.	Understand
HS401BM	MANAGERIAL ECONOMICS & ACCOUNTANCY	**Understand** the responsibility of a manager and fundamental concepts of Managerial Economics.	Understand
		Understand demand analysis and determinants of demand.	Understand
		Analyze production & markets and compute the future sales level.	Analyse
		Understand the features, merits, uses & limitations of Pay-back , ARR,NPV, PI & IRR methods of capital budgeting.	Understand
		Understand the Principles of accounting and prepare Journal, Ledger, Trial balance, manufacturing	Understand
		Understand the responsibility of a manager and fundamental concepts of Managerial Economics.	Understand
PC452EE	CAED LAB	**Identify** and draw different components of electrical systems	Apply
		Draw different control and wiring diagrams	Create
		Draw winding diagrams of electrical machines	create
		To understand the terminology of electric circuit and electrical components	understand
		Familiarize with electrical machines, apparatus and appliances	understand
		To acquire knowledge on various Electrical Engineering software	Evaluate

(Dr. K. Pulla Reddy)
Coordinator

Head of the Department

Head of Department
Department of EEE
Methodist College of Engg & Tech.
Abids, Hyderabad-500 001.

Scanned with CamScanner

METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY
Department of Electrical and Electronics Engineering

Course Outcomes

AY: 2018-19

VI Semester

Course Code	Course Name	Course Outcomes	Taxonomy
PC601EE	ELECTRICAL MACHINES-III	**Identify** different parts and operation of induction motors and specify their functions	Understand
		Understand the characteristics and carry out different testing methods of induction motors	Understand
		Identify different parts and operation of Synchronous generator	Apply
		Understand the necessity and working of parallel operation of synchronous generator and operation of synchronous motor	Apply
		Identify types of single phase motors and special motors	Understand
		Identify different parts and operation of induction motors and specify their functions	Understand
PC602EE	MICROPROCESSORS AND MICROCONTROLLERS	**Adapt** the knowledge of Architecture of 8086 and 8051, writing assembly language programming for different applications.	Create
		Explain types of microcontrollers and their applications.	Understand
		Develop a write programs to run on 8086 microprocessor based systems.	Apply
		Define the techniques for faster execution of instructions, improve speed of operations and enhance performance of microprocessors.	Remember
		Interpret the difference between Microprocessors and Microcontrollers.	Evaluate
		Simplify and design system using memory chips and peripheral chips for 16-bit 8086 microprocessor.	Create
PC603EE	SWITCHGEAR AND PROTECTION	**Understand** the operations of various types of circuit breakers and their ratings.	Understand
		Understand the unit protection and over voltage protection of different apparatus in power system	Understand
		Explain the working of different types of switchgear equipments like circuit breakers and relays	Apply
		Elucidate various protection schemes of various power system components like alternators, transformers and bus-bars	Apply
		To get the thorough knowledge on concept of earthing and grounding.	Analyze

Scanned with CamScanner

		Understand the operations of various types of circuit breakers and their ratings.	Understand
PC604EE	RENEWABLE ENERGY TECHNOLOGIES	**Understand** Knowledge of working principle of various energy systems	Remember
		Capable to carry out basic design of renewable energy system	Apply
		Analyze the environmental and cost economics of renewable energy sources in comparison with fossil fuels	Analyze
		Explain the concepts of Non-renewable and renewable energy systems	Applying
		Outline utilization of renewable energy sources for both domestic and industrial applications	Understand
		Knowledge of working principle of various energy systems	Understand
PE602EE	ELECTRIC DISTRIBUTION SYSTEM	**Understand** the concept of different factors used in design of distribution systems	Understand
		Analyze load characteristics, rate structure & types of Distribution Transformers	Analyze
		Analyze and Solve Sub-Transmission lines and Various substation Bus schemes with multiple feeders.	Analyze
		Analyze the design considerations of Distribution systems	Analyze
		Solve voltage drop , power loss calculations & justify placement of capacitor in distribution system	Apply
		Design the optimal locations and ratings of shunt capacitors and Formulate Distribution automation like SCADA	Create
OE 601 ME	INDUSTRIAL ROBOTICS	**Understand** the mechanical structure of industrial robots, operational workspace, various types of grippers, design considerations.	Understand
		Compare the various types of grippers, sensors and Analyze the best and economical sensors for specific applications.	Analyze
		Analyze forward and inverse kinematics problems for serial and parallel robots.	Apply
		Understand the techniques of robot vision, various programming languages and apply these techniques to build robots.	Apply

Scanned with CamScanner

		Understand about RGV and AGV , safety considerations and economic analysis of robots	Understand
		Categorize an industrial robot for a given purpose economically.	Analyze
PC651EE	ELECTRICAL MACHINES-II LAB	**Verify** the theory and working of electrical machines through laboratory experimental work.	Understand
		Make circuit diagram connections to perform experiments, measure, **analyze** the observed data to come to a conclusion.	Evaluate
		Organize reports based on performed experiments with effective demonstration of diagrams and characteristics/graphs.	Analyze
		Determine the different parameters of a three-phase alternator and its regulation	Understand
		Determine the different parameters of a three-phase synchronous motor as well as its 'V' and 'inverted V' curves	Analyze
		Compare the performance characteristics of different electrical machines.	Create
PC653EE	CONTROL SYSTEMS LAB	**Understand** Performance of P, PI and PID Controllers.	Understand
		Develop PLC programs for certain applications.	Apply
		Make use of the knowledge of Data acquisition system and Industrial process control in real world.	Apply
		Develop transfer function of various control system plants practically by conducting the experiments.	Apply
		Design and Simulate the Programming and control system concepts using MATLAB.	Create
		Design of lag and lead compensation by using Networks.	Create
PC652EE	DSP LAB	**Compute** and write MATLAB code to generate basic waves	Apply
		Compute and write MATLAB code to apply sampling theorem, to obtain convolution and compute DFT and FFT	Apply
		Compute and write MATLAB code to **design** FIR and IIR filters	Create
		Compute and write MATLAB code to obtain convolution of sequences	Apply
		Compute and write MATLAB code to perform basic operations on basic waves	Apply
		Compute and write MATLAB code to obtain Impulse response	Apply

Scanned with CamScanner

SI671EE	SUMMER INTERNSHIPS	**Design** a small and simple product in hardware or software	Create
		Complete the task or realize a pre specified target, with limited scope, rather than taking up a complex task and leave it	Apply
		Learn to find alternate viable solutions for a given problem and evaluate these alternatives with reference to prespecified criteria	Evaluate
		Implement the selected solution and document the same	Create
		Integrate different aspects of learning with reference to real life problems.	Understand
		Enhance the confidence of the students while communicating with industry engineers	Understand

(K. Pulla Reddy)
Coordinator

Head of the Department
Head of Department
Department of ...
Methodist College of Engg. & Tech.
Abids, Hyderabad-500 001.

Scanned with CamScanner

METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY
Department of Electrical and Electronics Engineering

Course Outcomes

AY: 2018-19 VIII Semester

Course Code	Course Name	Course Outcomes	Taxonomy
PE451EE	UTILIZATION OF ELECTRICAL ENGINEERING	**Design** major utilization loads, choose suitable drive with regard to efficiency and safety	Understand
		Describe different heating methods for a particular application.	Understand
		Apply modern trends in electric welding processes	Analyze
		Understand illumination concepts for efficient and economic lightning in industries streets and offices.	Analyze
		Analyze electric traction motors with wide range of speed control	Analyze
		Design major utilization loads, choose suitable drive with regard to efficiency and safety	Apply
PE471EE	RENEWABLE ENERGY SOURCES	**List** and Compare the various forms of non conventional energy resources and availability of all sources	Understand
		Explain the solar energy applications and calculations of solar energy	Understand
		Analyze how wind energy can be tapped from the nature and it's calculations	Analyze
		Outline the Geothermal & Biomass, its mechanism of production of energy and its applications	Understand
		Illustrate the concepts of Wave, Tidal energy & OTEC	Understand
		Analyze the environmental aspects of renewable energy resources.	Analyze
ME 472	INDUSTRIAL ADMINISTRATION & FINANACIAL MANAGEMENT	**Understand** types of various business organizations, organization structures, and functions of management and the importance of plant layouts.	Understand
		Understand and Apply the concept of Work Study (method study and time study) techniques for calculation of standard time in a plant, and the concept of performance rating factors & types of ratings.	Apply
		Evaluate whether the quality of a product or process in a plant.	Evaluate

Scanned with CamScanner

		Understand and Apply the optimization techniques like Linear Programming, Assignment and Project management & Material Management techniques for e optimum utilization of the resources.	Apply
		Know the different terminology used in Financial Management, understand and apply break even analysis and different techniques of capital budgeting involved in running an industrial organization.	Apply
		Understand the concepts of Quality control, process control, material control, Production Planning control and by use of control charts	Understand
CE452	DISASTER MITIGATION MANAGEMNT	**Attain** knowledge on various types, stages, phases in disaster with international & national policies & programmes with reference to the disaster reduction	Understand
		Understand various types of natural disaster, their occurrence, Effects, Mitigation and Management Systems in India	Understand
		Understand different types of manmade disasters, their occurrence, Effects, Mitigation and Management Systems in India	Understand
		Explain the utility of geographic information systems (GIS), Remote sensing technology in all phases of disaster mitigation and management	Understand
		Understand on the concepts of risk, vulnerability, warning and forecasting methods in disaster management	Understand
		Understand the role of education and training in disaster prevention.	Understand
EE481	DIGITAL SINGAL PROCESSING LAB	Compute and write MATLAB code to generate basic waves	Apply
		Compute and write MATLAB code to apply sampling theorem, to obtain convolution and compute DFT and FFT	Apply
		Compute and write MATLAB code to design FIR and IIR filters	Create
		Compute and write MATLAB code to obtain convolution of sequences	Apply
		Compute and write MATLAB code to perform basic operations on basic waves	Apply

Scanned with CamScanner

		Compute and write MATLAB code to obtain Impulse response	Apply
EE 482	PROJECTS	**Demonstrate** the ability to synthesize and apply the knowledge and skills acquired in the academic program to real-world problems	Understand
		Evaluate different solutions based on economic and technical feasibility	Evaluate
		Effectively **plan** a project and confidently perform all aspects of project management	Create
		Demonstrate effective written and oral communication skills	Understand
		To **expose** the students to industry practices and team work	Evaluate
		To **enhance** practical and professional skills.	Evaluate
EE 483	SEMINARS	**Demonstrate** the ability to synthesize and apply the knowledge and skills acquired in the academic program to real-world problems	Understand
		Evaluate different solutions based on economic and technical feasibility	Evaluate
		Effectively **plan** a project and confidently perform all aspects of project management	Create
		Demonstrate effective written and oral communication skills	Understand
		Expose the students to industry practices and team work	Evaluate
		Enhance practical and professional skills.	Evaluate

(K. Pulla Reddy)
Coordinator

Head of the Department
Head of Department
Department of EEE
Methodist College of Engg & Tech.
Abids, Hyderabad-500 001.

Scanned with CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT of Humanities & Sciences

AY: 2018 - 19 **(Mechanical Engineering)** **I SEM**

Course Outcomes

Course Code	Course Title	Course Outcome	TAXONOMY
BS104	Physics	Explain the basics of crystals, lattice parameters and their defects.	**Understand**
		Classify solids into different types by understanding the formation of energy bands in solids. and to Analyze the semiconductor by knowing the hall coefficient hall voltage, hall electric field and charge concentration and study the electric polarization in dielectrics	**Understand**
		Apply the knowledge of basic laws of electricity and magnetism to understand the concept of electromagnetic waves propagation and solve problems related to various fields	**Apply**
		Classify the properties of materials and Choose the materials for various applications in different disciplines	**Understand**
		Recall the basic concepts of optics, study the working of optical fibres and their applications	**Remember**
		Define the basic concepts of emission and absorption and study the different types of lasers and their applications.	**Remember**
ES106EE	BEE	Elaborate themselves in designing basic electric circuits	**Create**
		Judge suitable test to determine total power in three phase circuits	**Evaluate**
		Apply suitable test to determine the performance of AC machines	**Apply**
		Examine the performance characteristics of DC machines	**Analyse**
		Illustrate the requirements for electric machines for industrial purpose	**Understand**
		Find awareness about various electrical installation rules to be followed while working with electrical equipment	**Remember**
BS102MT	Mathematics-I	To Test for the convergence and divergence of infinite series using the comparison test, Ratio test, Cauchy's n'th root test, Leibnitz's test, and also analyzing the nature of series.	**Analyse**
		To Explain the concepts of derivatives using mean value theorems and their generalization (Taylor's and Meclaurin's series.). Concepts of curvature, evolutes, involutes, envolpes of family cf curves.	**Understand**
		To Find Partial derivatives of functions of two variables using concept of limits and continuity . Derivatives of composite and implicit functions, Jacobians	**Remember**
		To Examine the behavior of higher order partial derivatives using taylors series and the concepts of maximum and minimum of functions of two variables.	**Analyse**
		To Identify the key concepts, theories and mathematical fundamentals to derive mathematical relations involved in evaluation of double integrals and triple integrals and solving Engineering problems.	**Apply**
		To Evaluate gradient of a scalar field, divergence, curl of a vector field to find the values of line, surface and volume integrals and establish their relation using Green, Gauss and Stokes theorems.	**Evaluate**

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT of Humanities & Sciences

AY: 2018 - 19 | **(Electrical & Electronics Engineering)** | **I SEM**

Course Outcomes

Course Code	Course Title	Course Outcome	TAXONOMY
ES 107 CS	Programming for Problem Solving	Formulate simple algorithms for arithmetic and logical problems; Translate the algorithms to programs in C Language.	**Understanding**
		Test and execute the programs and correct syntax and logical errors.	**Applying**
		Implement conditional branching, iteration and recursion.	**Evaluating**
		Decompose a problem into functions and synthesize a complete program using divide and conquer approach	**Analysing**
		Construct by using strings, arrays, pointers, structures and files to formulate algorithms and programs	**Creating**
		Apply programming to solve matrix problems and searching and sorting problems and numerical method problems and root finding of functions and simple integrations.	**Understanding Applying**
BS102MT	MATHEMATICS-I	To Explain the concepts of curvature, evolutes, involutes, envolpes of family cf curves. The Proofs of Mean value theorems, Expantions of Taylor's and Meclaurin's series.	**Understanding**
		To Identify the key concepts, theories and mathematical fundamentals to derive mathematical relations involved in evaluation of double integrals and triple integrals and solving Engineering problems.	**Applying**
		To Apply integration and differentiation in solving problems of vector integral theorems and their applications.	**Applying**
		To Test for the convergence and divergence of infinite series using the comparison test, Ratio test, Cauchy's n'th root test, Leibnitz's test, and also analyzing the nature of series.	**Analysing**
		To Evaluate Gradient of a scalar field, divergence, curl of a vector field to find the values of line, surface and volume integrals.	**Evaluating**
		To Examine the behavior of given series and test for their convergence or divergence.test for the maximum and minimum of functions of two variables.	**Analysing**
BS105CH	CHEMISTRY	Able to analyse and determine the concentration of liquid samples working as an individual and also as an team member	**Understanding**
		Able to analyse different parameters of water considering environmental issues	**Applying**
		Able to operate different types of instruments for estimation of small quantities chemicals used in industries and scientific and technical fields.	**evaluating**
		Able to synthesize drug and polymer materials.	**Understanding**
		Capable to design innovative experiments applying the fundamentals of chemistry	**Understanding**
		Able to understand the estimation of result by using instruments like potentiometry, Ph Metry, Conductometry etc.	**Creating**

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF H & S

AY: 2018 - 19 **(Electronics & Communication Engineering)** **I SEM**

Course Outcomes

ES 107 CS	Programming for Problem Solving	Formulate simple algorithms for arithmetic and logical problems; Translate the algorithms to programs in C Language.	**Understanding**
		Test and execute the programs and correct syntax and logical errors.	**Applying**
		Implement conditional branching, iteration and recursion.	**Evaluating**
		Decompose a problem into functions and synthesize a complete program using divide and conquer approach	**Analysing**
		Construct by using strings, arrays, pointers, structures and files to formulate algorithms and programs	**Creating**
		Apply programming to solve matrix problems and searching and sorting problems and numerical method problems and root finding of functions and simple integrations.	**Understanding Applying**
BS102MT	MATHEMATICS-I	To Explain the concepts of curvature, evolutes, involutes, envolpes of family cf curves. The Proofs of Mean value theorems, Expantions of Taylor's and Meclaurin's series.	**Understanding**
		To Identify the key concepts, theories and mathematical fundamentals to derive mathematical relations involved in evaluation of double integrals and triple integrals and solving Engineering problems.	**Applying**
		To Apply integration and differentiation in solving problems of vector integral theorems and their applications.	**Applying**
		To Test for the convergence and divergence of infinite series using the comparison test, Ratio test, Cauchy's n'th root test, Leibnitz's test, and also analyzing the nature of series.	**Analysing**
		To Evaluate Gradient of a scalar field, divergence, curl of a vector field to find the values of line, surface and volume integrals.	**Evaluating**
		To Examine the behavior of given series and test for their convergence or divergence.test for the maximum and minimum of functions of two variables.	**Analysing**
BS105CH	CHEMISTRY	Able to analyse and determine the composition of liquid samples working as an individual and also as an team member	**Understanding**
		Able to analyse different parameters of water considering environmental issues	**Applying**
		Able to operate different types of instruments for estimation of small quantities chem	**evaluating**
		Able to synthesize drug and polymer materials.	**Understanding**
		Capable to design innovative experiments applying the fundamentals of chemistry	**Understanding**
		Able to understand the estimation of result by using instruments like potentiometry, Ph Metry, Conductometry etc.	Creating

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF H & S

AY: 2018 - 19 **(Civil Engineering)** **I SEM**

Course Outcomes

Course Code	Course Title	Course Outcome	TAXONOMY
BS102MT	MATHEMATICS-I	To Test for the convergence and divergence of infinite series using the comparison test, Ratio test, Cauchy's n'th root test, Leibnitz's test, and also analyzing the nature of series.	**Analyse**
		To Explain the concepts of derivatives using mean value theorems and their generalization (Taylor's and Meclaurin's series.). Concepts of curvature, evolutes, involutes, envolpes of family cf curves.	**Understand**
		To Find Partial derivatives of functions of two variables using concept of limits and continuity . Derivatives of composite and implicit functions, Jacobians	**Remember**
		To Examine the behavior of higher order partial derivatives using taylors series and the concepts of maximum and minimum of functions of two variables.	**Analyse**
		To Identify the key concepts, theories and mathematical fundamentals to derive mathematical relations involved in evaluation of double integrals and triple integrals and solving Engineering problems.	**Apply**
		To Evaluate gradient of a scalar field, divergence, curl of a vector field to find the values of line, surface and volume integrals and establish their relation using Green, Gauss and Stokes theorems.	**Evaluate**
ES 107 CS	Programming for Problem Solving	Formulate simple algorithms for arithmetic and logical problems; Translate the algorithms to programs in C Language.	**Understanding**
		Test and execute the programs and correct syntax and logical errors.	**Applying**
		Implement conditional branching, iteration and recursion.	**Evaluating**
		Decompose a problem into functions and synthesize a complete program using divide and conquer approach	**Analysing**
		Construct by using strings, arrays, pointers, structures and files to formulate algorithms and programs	**Creating**
		Apply programming to solve matrix problems and searching and sorting problems and numerical method problems and root finding of functions and simple integrations.	**Understanding Applying**
BS105CH	CHEMISTRY	Able to analyse and determine the composition of liquid samples working as an individual and also as an team member	**Understanding**
		Able to analyse different parameters of water considering environmental issues	**Applying**
		Able to operate different types of instruments for estimation of small quantities chemicals used in industries and scientific and technical fields.	**evaluating**
		Able to synthesize drug and polymer materials.	**Understanding**
		Capable to design innovative experiments applying the fundamentals of chemistry	**Understanding**
		Able to understand the estimation of result by using instruments like potentiometry, Ph Metry, Conductometry etc.	**Creating**

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF H & S

AY: 2018 - 19 **(Computer Science Engineering)** **I SEM**

Course Outcomes

Course Code	Course Title	Course Outcome	TAXONOMY
BS104	Physics	Explain the basics of crystals, lattice parameters and their defects.	**Understand**
		Classify solids into different types by understanding the formation of energy bands in solids. and to Analyze the semiconductor by knowing the hall coefficient hall voltage, hall electric field and charge concentration and study the electric polarization in	**Understand**
		Apply the knowledge of basic laws of electricity and magnetism to understand the concept of electromagnetic waves propagation and solve problems related to various fields	**Apply**
		Classify the properties of materials and Choose the materials for various applications in different disciplines	**Understand**
		Recall the basic concepts of optics, study the working of optical fibres and their applications	**Remember**
		Define the basic concepts of emission and absorption and study the different types of lasers and their applications.	**Remember**
ES106EE	BEE	Elaborate themselves in designing basic electric circuits	**Create**
		Judge suitable test to determine total power in three phase circuits	**Evaluate**
		Apply suitable test to determine the performance of AC machines	**Apply**
		Examine the performance characteristics of DC machines	**Analyse**
		Illustrate the requirements for electric machines for industrial purpose	**Understand**
		Find awareness about various electrical installation rules to be followed while working with electrical equipment	**Remember**
BS102MT	MATHEMATICS-I	To Explain the concepts of curvature, evolutes, involutes, envolpes of family cf curves. The Proofs of Mean value theorems, Expantions of Taylor's and Meclaurin's series.	**Understanding**
		To Identify the key concepts, theories and mathematical fundamentals to derive mathematical relations involved in evaluation of double integrals and triple integrals and solving Engineering problems.	**Applying**
		To Apply integration and differentiation in solving problems of vector integral theorems and their applications.	**Applying**
		To Test for the convergence and divergence of infinite series using the comparison test, Ratio test, Cauchy's n'th root test, Leibnitz's test, and also analyzing the nature of series.	**Analysing**
		To Evaluate Gradient of a scalar field, divergence, curl of a vector field to find the values of line, surface and volume integrals.	**Evaluating**
		To Examine the behavior of given series and test for their convergence or divergence.test for the maximum and minimum of functions of two variables.	**Analysing**

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF H & S

AY 2018 - 19 **MECH** **II Sem**

Course Outcomes

Course Code	Course Title	Course Outcome	TAXONOMY
BS103MT	Mathematics-II	Find the rank of matrix,eigen values and eigen vectors. Canonical and Quadratic forms.	**Remembering**
		Solve the ordinary differential equations of first and higher order and their physical and geometrical applications	**Applying**
		Solve problems of Legendre polynomials and Beta Gamma functions	**Applying**
		Classify the types of matrices, differential equations and special functions.	**Analysing**
		Evaluate Laplace Transforms,InverseLaplace Transforms of functions and their applications to ordinary differential equations.	**Evaluating**
		Prove relation between Beta Gamma functions and recurrence relation of special function	**Evaluating**
HS102EG	ENGLISH	Read, understand, interpret and comprehend a variety of written texts and develop positive attitude and commitment towards their (students') goal and society	**Understand**
		Remember and recognize the significance of vocabulary (roots and affixes, homonyms, one- word substitutes, etc.) and use language accurately for effective communication.	**Remember**
		Apply appropriate grammatical concepts (tenses, articles, prepositions, etc.) to spoken and written English in formal and informal ambience.	**Apply**
		Compile information of various aspects of English diction – Develop creativity in writing skills by framing paragraphs, essays, official letters, technical reports, etc	**Create**
		Analyze different ways of life through reading prose and poetry, each symbolizing a particular virtue and the learners develop the ability to be creative.	**Analyze**
		Apply appropriate grammatical structure and rules to spoken and written English in forn	**Understand**
BS105CH	CHEMISTRY	Apply concept of electrode potential in identifying feasibility of electrochemical reaction; illustrate electro analytical techniques and working of batteries.	**Understand**
		Identify the mechanism of corrosion of materials on basis of electrochemical approach and devise corrosion control methods.	**Apply**
		Estimate the physical & chemical parameters of quality of water and explain the process of water treatment.	**Evaluate**
		Explain the influence of chemical structure on properties of materials and their choice in engineering applications.	**Understand**
		Classify chemical fuels and grade them through qualitative analysis.	**Understand**
		Relate the concept of green chemistry to modify engineering processes and materials.	**Create**
ES 107 CS	Programming for Problem Solving	Formulate simple algorithms for arithmetic and logical problems; Translate the algorithms to programs in C Language.	**Understanding**
		Test and execute the programs and correct syntax and logical errors.	**Applying**
		Implement conditional branching, iteration and recursion.	**Evaluating**
		Decompose a problem into functions and synthesize a complete program using divide and conquer approach	**Analysing**
		Construct by using strings, arrays, pointers, structures and files to formulate algorithms and programs	**Creating**
		Apply programming to solve matrix problems and searching and sorting problems and numerical method problems and root finding of functions and simple integrations.	**Understanding Applying**
BS104	Physics	Explain the basics of crystals, lattice parameters and their defects.	**Understand**
		Classify solids into different types by understanding the formation of energy bands in solids. and to Analyze the semiconductor by knowing the hall coefficient hall voltage, hall electric field and charge concentration and study the electric polarization in dielectrics	**Understand**
		Apply the knowledge of basic laws of electricity and magnetism to understand the concept of electromagnetic waves propagation and solve problems related to various fields	**Apply**
		Classify the properties of materials and Choose the materials for various applications in different disciplines	**Understand**
		Recall the basic concepts of optics, study the working of optical fibres and their applications	**Remember**
		Define the basic concepts of emission and absorption and study the different types of lasers and their applications.	**Remember**

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF H & S

AY 2018 - 19 | **EEE** | **II Sem**

Course Outcomes

Course Code	Course Title	Course Outcome	TAXONOMY
BS103MT	Mathematics-II	Find the rank of matrix,eigen values and eigen vectors. Canonical and Quadratic forms.	**Remembering**
		Solve the ordinary differential equations of first and higher order and their physical and geometrical applications	**Applying**
		Solve problems of Legendre polynomials and Beta Gamma functions	**Applying**
		Classify the types of matrices, differential equations and special functions.	**Analysing**
		Evaluate Laplace Transforms,InverseLaplace Transforms of functions and their applications to ordinary differential equations.	**Evaluating**
		Prove relation between Beta Gamma functions and recurrence relation of special function	**Evaluating**
ES 107 CS	Programming for Problem Solving	Formulate simple algorithms for arithmetic and logical problems; Translate the algorithms to programs in C Language.	**Understanding**
		Test and execute the programs and correct syntax and logical errors.	**Applying**
		Implement conditional branching, iteration and recursion.	**Evaluating**
		Decompose a problem into functions and synthesize a complete program using divide and conquer approach	**Analysing**
		Construct by using strings, arrays, pointers, structures and files to formulate algorithms and programs	**Creating**
		Apply programming to solve matrix problems and searching and sorting problems and numerical method problems and root finding of functions and simple integrations.	**Understanding Applying**
HS102EG	ENGLISH	Read, understand, interpret and comprehend a variety of written texts and develop positive attitude and commitment towards their (students') goal and society	**Understand**
		Remember and recognize the significance of vocabulary (roots and affixes, homonyms, one- word substitutes, etc.) and use language accurately for effective communication.	**Remember**
		Apply appropriate grammatical concepts (tenses, articles, prepositions, etc.) to spoken and written English in formal and informal ambience.	**Apply**
		Compile information of various aspects of English diction – Develop creativity in writing skills by framing paragraphs, essays, official letters, technical reports, etc	**Create**
		Analyze different ways of life through reading prose and poetry, each symbolizing a particular virtue and the learners develop the ability to be creative.	**Analyze**
		Apply appropriate grammatical structure and rules to spoken and written English in formal and informal ambience.	**Understand**
BS105CH	CHEMISTRY	Apply concept of electrode potential in identifying feasibility of electrochemical reaction; illustrate electro analytical techniques and working of batteries.	**Understand**
		Identify the mechanism of corrosion of materials on basis of electrochemical approach and devise corrosion control methods.	**Apply**
		Estimate the physical & chemical parameters of quality of water and explain the process of water treatment.	**Evaluate**
		Explain the influence of chemical structure on properties of materials and their choice in engineering applications.	**Understand**
		Classify chemical fuels and grade them through qualitative analysis.	**Understand**
		Relate the concept of green chemistry to modify engineering processes and materials.	**Create**

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF H & S

AY 2018 - 19 | **ECE** | **II Sem**

Course Outcomes

Course Code	Course Title	Course Outcome	TAXONOMY
BS103MT	Mathematics-II	Find the rank of matrix,eigen values and eigen vectors. Canonical and Quadratic forms.	**Remembering**
		Solve the ordinary differential equations of first and higher order and their physical and geometrical applications	**Applying**
		Solve problems of Legendre polynomials and Beta Gamma functions	**Applying**
		Classify the types of matrices, differential equations and special functions.	**Analysing**
		Evaluate Laplace Transforms,InverseLaplace Transforms of functions and their applications to ordinary differential equations.	**Evaluating**
		Prove relation between Beta Gamma functions and recurrence relation of special function	**Evaluating**
BS104	Physics	Explain the basics of crystals, lattice parameters and their defects.	**Understand**
		Classify solids into different types by understanding the formation of energy bands in solids. and to Analyze the semiconductor by knowing the hall coefficient hall voltage, hall electric field and charge concentration and study the electric polarization in dielectrics	**Understand**
		Apply the knowledge of basic laws of electricity and magnetism to understand the concept of electromagnetic waves propagation and solve problems related to various fields	**Apply**
		Classify the properties of materials and Choose the materials for various applications in different disciplines	**Understand**
		Recall the basic concepts of optics, study the working of optical fibres and their applications	**Remember**
		Define the basic concepts of emission and absorption and study the different types of lasers and their applications.	**Remember**
HS102EG	ENGLISH	Read, understand, interpret and comprehend a variety of written texts and develop positive attitude and commitment towards their (students') goal and society	**Understand**
		Remember and recognize the significance of vocabulary (roots and affixes, homonyms, one-word substitutes, etc.) and use language accurately for effective communication.	**Remember**
		Apply appropriate grammatical concepts (tenses, articles, prepositions, etc.) to spoken and written English in formal and informal ambience.	**Apply**
		Compile information of various aspects of English diction – Develop creativity in writing skills by framing paragraphs, essays, official letters, technical reports, etc	**Create**
		Analyze different ways of life through reading prose and poetry, each symbolizing a particular virtue and the learners develop the ability to be creative.	**Analyze**
		Apply appropriate grammatical structure and rules to spoken and written English in formal and informal ambience.	**Understand**
ES101EE	BEE	Elaborate themselves in designing basic electric circuits	**Create**
		Judge suitable test to determine total power in three phase circuits	**Evaluate**
		Apply suitable test to determine the performance of AC machines	**Apply**
		Examine the performance characteristics of DC machines	**Analyse**
		Illustrate the requirements for electric machines for industrial purpose	**Understand**
		Find awareness about various electrical installation rules to be followed while working with electrical equipment	**Remember**

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF H & S

AY 2018 - 19 | **Civil Engineering** | **II Sem**

Course Outcomes

Course Code	Course Title	Course Outcome	TAXONOMY
BS103MT	Mathematics-II	Find the rank of matrix,eigen values and eigen vectors. Canonical and Quadratic forms.	**Remembering**
		Solve the ordinary differential equations of first and higher order and their physical and geometrical applications	**Applying**
		Solve problems of Legendre polynomials and Beta Gamma functions	**Applying**
		Classify the types of matrices, differential equations and special functions.	**Analysing**
		Evaluate Laplace Transforms,InverseLaplace Transforms of functions and their applications to ordinary differential equations.	**Evaluating**
		Prove relation between Beta Gamma functions and recurrence relation of special function	**Evaluating**
BS104PH	PHYSICS	Explain the basics of crystal systems, lattice parameters and different types of crystal defects.	**Understand**
		Classify the solids into different types by understanding the formation of energy bands and Illustrate the semiconductors by knowing the hall coefficient	**Understand**
		Explain the different types of dielectric polarisations and study the properties of ferroelectric materials	**Understand**
		Apply the knowledge of basic laws of electricity-magnetism and modern physics to understand the concept of electromagnetic waves propagation and solve problems related to various fields	**Apply**
		Classify the different types of magnetic materials and Choose the materials for various applications and study the Properties of superconductors	**Understand**
		Recall the basic concepts of optics, study the working of different types of Optical Fiber, Lasers and their applications	**Remember**
HS102EG	ENGLISH	Read, understand, interpret and comprehend a variety of written texts and develop positive attitude and commitment towards their (students') goal and society	**Understand**
		Remember and recognize the significance of vocabulary (roots and affixes, homonyms, one- word substitutes, etc.) and use language accurately for effective communication.	**Remember**
		Apply appropriate grammatical concepts (tenses, articles, prepositions, etc.) to spoken and written English in formal and informal ambience.	**Apply**
		Compile information of various aspects of English diction – Develop creativity in writing skills by framing paragraphs, essays, official letters, technical reports, etc	**Create**
		Analyze different ways of life through reading prose and poetry, each symbolizing a particular virtue and the learners develop the ability to be creative.	**Analyze**
		Apply appropriate grammatical structure and rules to spoken and written	**Understand**
ES106EE	BEE	Elaborate themselves in designing basic electric circuits	**Create**
		Judge suitable test to determine total power in three phase circuits	**Evaluate**
		Apply suitable test to determine the performance of AC machines	**Apply**
		Examine the performance characteristics of DC machines	**Analyse**
		Illustrate the requirements for electric machines for industrial purpose	**Understand**
		Find awareness about various electrical installation rules to be followed while working with electrical equipment	**Remember**
HS102EG	ENGLISH	Read, understand, interpret and comprehend a variety of written texts and develop positive attitude and commitment towards their (students') goal and society	**Understand**
		Remember and recognize the significance of vocabulary (roots and affixes, homonyms, one- word substitutes, etc.) and use language accurately for effective communication.	**Remember**
		Apply appropriate grammatical concepts (tenses, articles, prepositions, etc.) to spoken and written English in formal and informal ambience.	**Apply**
		Compile information of various aspects of English diction – Develop creativity in writing skills by framing paragraphs, essays, official letters, technical reports, etc	**Create**
		Analyze different ways of life through reading prose and poetry, each symbolizing a particular virtue and the learners develop the ability to be creative.	**Analyze**
		Apply appropriate grammatical structure and rules to spoken and written	**Understand**

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF H & S

AY 2018 - 19 | **C S E** | **II Sem**

Course Outcomes

Course Code	Course Title	Course Outcome	TAXONOMY
BS103MT	MATHS II	Find the rank of matrix,eigen values and eigen vectors. Canonical and Quadratic forms.	**Remembering**
		Solve the ordinary differential equations of first and higher order and their physical and geometrical applications	**Applying**
		Solve problems of Legendre polynomials and Beta Gamma functions	**Applying**
		Classify the types of matrices, differential equations and special functions.	**Analysing**
		Evaluate Laplace Transforms,InverseLaplace Transforms of functions and their applications to ordinary differential equations.	**Evaluating**
		Prove relation between Beta Gamma functions and recurrence relation of special function	**Evaluating**
HS102EG	ENGLISH	Read, understand, interpret and comprehend a variety of written texts and develop positive attitude and commitment towards their (students') goal and society	**Understand**
		Remember and recognize the significance of vocabulary (roots and affixes, homonyms, one- word substitutes, etc.) and use language accurately for effective communication.	**Remember**
		Apply appropriate grammatical concepts (tenses, articles, prepositions, etc.) to spoken and written English in formal and informal ambience.	**Apply**
		Compile information of various aspects of English diction – Develop creativity in writing skills by framing paragraphs, essays, official letters, technical reports, etc	**Create**
		Analyze different ways of life through reading prose and poetry, each symbolizing a particular virtue and the learners develop the ability to be creative.	**Analyze**
		Apply appropriate grammatical structure and rules to spoken and written English in formal and informal ambience.	**Understand**
BS105CH	CHEMISTRY	Apply concept of electrode potential in identifying feasibility of electrochemical reaction; illustrate electro analytical techniques and working of batteries.	**Understand**
		Identify the mechanism of corrosion of materials on basis of electrochemical approach and devise corrosion control methods.	**Apply**
		Estimate the physical & chemical parameters of quality of water and explain the process of water treatment.	**Evaluate**
		Explain the influence of chemical structure on properties of materials and their choice in engineering applications.	**Understand**
		Classify chemical fuels and grade them through qualitative analysis.	**Understand**
		Relate the concept of green chemistry to modify engineering processes and materials.	**Create**
ES 107 CS	Programming for Problem Solving	Formulate simple algorithms for arithmetic and logical problems; Translate the algorithms to programs in C Language.	**Understanding**
		Test and execute the programs and correct syntax and logical errors.	**Applying**
		Implement conditional branching, iteration and recursion.	**Evaluating**
		Decompose a problem into functions and synthesize a complete program using divide and conquer approach	**Analysing**
		Construct by using strings, arrays, pointers, structures and files to formulate algorithms and programs	**Creating**
		Apply programming to solve matrix problems and searching and sorting problems and numerical method problems and root finding of functions and simple integrations.	**Understanding Applying**

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

KING KOTI ROAD, ABIDS, HYDERABAD

DEPARTMENT OF BUSINESS MANAGEMENT

ACADEMIC YEAR 2018 - 19

MBA I SEMESTER Course Outcomes

Course Code	Course Name	Course Outcome	Taxonomy Level
MB101	Management & Organizational Behaviour	Understand the principles and practices of management and specifically the nature of management functions, roles and skills.	Understand
		Understand the process of decision making and its models.	Understand
		To inculcate knowledge on personality, perception and theories of motivation.	Analyze
		Analyze the behavior of individual and groups in organizations in terms of organizational behavior theories, models and concepts.	Analyze
		To understand the concept of organization design, organization climate, organization culture, various aspects of Organization Behavior and importance of communication process.	Understand
MB102	Accounting for Management	To Understand the Nature and Scope of Financial Accounting	Understand
		To Determine the Trading, Profit & Loss A/c and Balance Sheet	Determine
		To Analyze the Financial Statements – Classify the Ratios	Analyze
		To Categorize the Cash Flow Statement – the utility of Cash Flow Statements	Categorise
		To Classify different Costs – Fixed & Variable Costs – Break –Even Point & P/V Ratio	Classify
MB103	Marketing Management	Evaluate the relevance of marketing concepts impact on environmental change while designing marketing plans, strategies and practices	Evaluate
		Develop marketing strategies based on segmentation, target marketing and positioning by examining consumer behaviour.	Develop
		Ability to summarize the unique marketing mixes and selling propositions for specific product offerings and pricing objectives.	Understand
		Develop and apply knowledge to create integrated marketing communication strategies and	Apply
		Ability to analyse marketing control techniques and can understand strategies related to rural,	Analyze
MB104.1	Business Law & Ethics	Demonstrate an understanding of the legal aspects of business.	Demonstrate
		Apply basic legal knowledge to business transactions.	Apply
		Examine the importance of the legal system with respect to business.	Examine
		Integrate the concept of ethics & value based considerations in business.	Integrate
		To Understand the role of managers in the firms	Estimate

MB104.3	**Managerial Economics**	To Understand the role of managers in the firms	Understand
		Understand the demand & supply conditions of the firm	Understand
		To Interpret production function, economies & diseconomies of scale, cost analysis	Interpret
		To understand market structure & pricing practices	Understand
		Understand the concept of National income, Inflation & its effect on trade	Understand
MB105.1	**IT Applications for Management**	To summarize the concepts and classify the categories of Information systems.	Understand
		To apply the technology infrastructure of computer hardware & software.	Apply
		To apply the basic knowledge of database connectivity.	Apply
		To apply different types of inter-organizational systems.	Apply
		To take measures to solve the problems relate to information security and laws.	Apply
MB105.2	**Business Communication**	To understand about the role and process of communication.	Understand
		To get knowledge about non verbal communication , negotiation and its approaches.	Understand
		To enhance presentation skills and methods of speaking, analyzing the audience.	Apply
		To create a good report and drafting different types of Business letters.	Create
		To maintain better relations with media and understand about crisis communication.	Analyze
MB106	**Computer Practicals**	To understand basic of MS-EXCEL spreadsheets along with formulas and functions of it.	Understand
		To create a data base and querying of data, working with graphs and charts.	Create
		To apply statistical and financial tools of MS-EXCEL.	Apply
		To understand and creating a database in MS- ACCESS and Creating querying using forms.	Understand
		To get knowledge of transferring data from EXCEL to ACCESS.	Apply

Assessment Coordinator

HOD

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

KING KOTI ROAD, ABIDS, HYDERABAD

DEPARTMENT OF BUSINESS MANAGEMENT

ACADEMIC YEAR 2018 - 19

MBA II SEMESTER Course Outcomes

Course Code	Course Name	Course Outcome	Taxonomy Level
MB201	Human Resources Management	Effectively manage and plan key human resource functions within organizations	Apply
		Examine current issues, trends, practices, and processes in HRM	Analyze
		Simplify employee performance management and organizational effectiveness	Analyze
		Problem-solve human resource challenges	Create
		CO5 Develop effective written and oral communication skills	Apply
MB202	Financial Management	To Classify the Nature and Scope of Finance Function	Classify
		To Evaluate and Appraise the Investment Decisions	Evaluate
		To Identify the different Sources of Finance	Identify
		To Classify the Current Assets and Examine the major theories of Dividends	Classify
		To Outline Corporate Restructuring and Corporate Governance	Outline
MB203	Business Research Methods	To categorise the methods involved in analyzing the business outcomes .	Analyze
		To demonstrate the ability to collect data from various sources for the purposes of research.	Demonstrate
		To Classify the quality of data collected by analysis , scaling and probability	Classify
		To be able to evaluate by cause and efect the correlation and a mathematical	Evaluate
		To be able to apply the Business research Methods for the solution of problems	Apply
MB204.3	International Business	To demonstrate an understanding of the fundamental concepts of international	Demonstrate
		To apply the current business phenomenon and evaluate the global business	Apply
		To analyse the principle of international business and strategies adopted by firms	Analyse
		To examine the concepts of international trade and the functioning of global	Examine
		To assess the global business environment and its effective management.	Assess
MB204.4	Financial Markets & Services	To understand & differentiate between financial markets & financial services	Understand
		Understand Merchant banking and its functions	Understand
		To summarize the concept of Leasing and Hire purchase concept	Summarize
		To acquire & understand Insurance fundamental principles, characteristics &	Acquire & Understand
		To Understand the concept & functions of Factoring and concept of Credit	Understand

MB205.1	**Total Quality Management**	To understand the fundamental principles of TQM	Understand
		To choose appropriate TQM Tools for improving processes & quality	Choose
		To choose appropriate TQM Technique for improving processes & quality	Choose
		To understand concept of six sigma & apply six sigma problem solving tools	Understand
		To construct TQM in service sectors	Construct
MB205.2	**Stratagic Management Accounting**	To provide with an in-depth knowledge of management accounting and Evaluate	Apply
		Apply and Evaluate strategic planning and control over budgeting techniques.	Apply
		Understand the concept of responsibility centers and responsibility accounting in	Understand
		Ability to prepare and analyze costing and evaluate customer profitability.	Evaluate
		Apply and evaluate techniques for allocating and managing resources in	Apply
MB206	**Seminar**	Develop communication skills.	Understand
		Understand Verbal and Nonverbal aspects of communication skills.	Understand
		Develop presentation skills.	Apply
		Motivates individual to be a good speaker.	create
		Increases confidence levels in individuals.	Analyze

Assessment Coordinator

HOD

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

KING KOTI ROAD, ABIDS, HYDERABAD

DEPARTMENT OF BUSINESS MANAGEMENT

ACADEMIC YEAR 2018 - 19

MBA III SEMESTER Course Outcomes

Course Code	Course Name	Course Outcome	Taxonomy Level
MB301	Operations Management	To understand features of operations & production, and types of processes	Understand
		To understand strategic levels in process sequencing, capacity & maintenance management	Understand
		To analyze work study techniques & service management	Analyze
		To understand need & importance of material in manufacturing firms	Understand
		To analyze stores functions & inventory models	Analyze
MB302	E-Business	To understand E-business basic development and environment	Understand
		To classify e-marketing strategies	Classify
		Understand and summarize mobile commerce basics	Understand
		Demonstrate understanding of mobile commerce technology	Demonstrate
		To understand the facts and ideas about mobile commerce applications	Understand
MB303	Operations Research	To understand definition, scope, objectives, phases, models & limitations of operations research and apply the graphical method to find optimal solution.	Understand
		To apply the primal and dual relationships by adapting to other models.	Apply
		To apply different application areas of operations research like transportation problem, assignment model and to solve them.	Apply
		To identify the resources project and generate a plan and work schedule.	Apply
		To analyze the usage of game theory, Queuing theory and simulation for solving business	Analyze
MB304.1	Financial Risk Management	To Understand the concept of Risk, and Illustrate Risk Management Process – pre-	Understand
		To Construct the Value at Risk (VaR) and Cash Flow at Risk (	Construct
		To Identify the Techniques and Tolls of Risk Management – Forwards and Future	Identify
		To Compare the different types of Swaps – Interest Rate Swaps & Currency Swaps	Compare
		To Apply the Techniques and Tools of Risk Management – Options on Stock Indices	Apply
MB304.2	Product & Brand Management	To build a product & experiment with the modification and deletion of a product and	Apply
		To understand about new products development stages.	Understand
		To evaluate the role of research & development in the process of selection, testing &	Evaluate
		To understand the importance of segmenting a market and identify the ways a market can	Understand
		To examine principles of product launching.	Analyze

MB304.3	**Compensation Management**	To analyze current trends in compensation management.	Analyze
		To acquire an understanding of theoretical concepts and its practical applicability.	Understand
		To create a successful link between organizational goals, performance and	Create
		To gain knowledge about laws related to compensation and utilise it for the	Apply
		To evaluate if the business decisions taken are according to the HR concepts .	Evaluate
MB305.1	**International Finanace**	To Understand the Evolution of International Financial System	Understand
		To Classify the Foreign Exchange Market – Distinctive features and its types	Classify
		To Examine the Exchange Rate Determination and Risk Management	Examine
		To Analyze the Multinational Corporate Decisions in Global Markets	Analyze
		To Examine the International Tax Environment – Tax implications of foreign enterprises	Examine
MB305.2	**Promotion & Distribution Management**	To understand the Evolution, nature and importance, strategies and tactics and emerging	Understand
		Ability to apply the knowledge of sales force recruitment, training and motivation and	Apply
		To analyze the channel designing, selecting channel partners and channel conflict	Analyze
		To take part in self-study to formulate, design, implement, analyze and demonstrate	Analyze
		To Evaluate real and complex Understanding of elements of supply chain	Evaluate
MB305.3	**Organisation Development**	To understand about concepts, skills necessary for managing and leading change in	Understand
		To develop and enhance conceptual , behavioral skills to implement system wide	Analyze
		To explore about managing the organization development process.	Evaluate
		Enhance self-awareness and understanding of group process in order to perform more	Analyze
		Examine systematically the techno structural , strategic interventions and sustainability	Analyze
MB306	**Innovation Management**	To demonstrate an understanding of the concept of R& D innovation management in	Demonstrate
		To estimate the allocation of funds in R & D projects and its management.	Estimate
		To evaluate the progress of R & D in organizations.	Evaluate
		To analyse the relation between R & D and innovation management.	Analyse
		To apply the knowledge acquired in facilitation of innovation in organizations.	Apply

Assessment Coordinator

HOD

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY

KING KOTI ROAD, ABIDS, HYDERABAD

DEPARTMENT OF BUSINESS MANAGEMENT

ACADEMIC YEAR 2018 - 19

MBA IV SEMESTER Course Outcomes

Course Code	Course Name	Course Outcome	Taxonomy Level
MB401	Strategic Management	Understand the importance, scope and concept of Strategy & Strategic Management Process.	Understand
		Formulate the Vision, Mission statements and define goals, objectives for organizations.	Formulate
		Analyze role of environment for strategy formulation.	Analyse
		Determine the alternatives for strategy formulation & sustenance.	Determine
		Identify strategy implementation procedures coupled with corporate ethics.	Identify
MB402	Business Intelligence	To Understand the History, Evolution, Styles & Benefits of Business Intelligence	Understand
		To Classify the Data Warehousing and Data Mining Approaches and Applications	Classify
		To Compare the Business Performance Measurement (BPM) and Business Intelligence	Compare
		To Classify Business Analytics and Data Visualization	Classify
		To Summarize Business Intelligence Implementation	Summarize
MB403	Supply Chain Management	Understand basic and fundamentals of supply chain management	Understand
		To summarize logistics management & Inventory management	Summarize
		Understand the role of Transportation & Warehousing	Understand
		Analyze role of Information technology in SCM	Analyze
		Understand key operation aspects like Distributors, HR in Supply Chain	Understand
MB404.1	Investment Management	To Understand the concept of Real vs Financial Assets – Investment Decision Process	Understand
		To Analyze the Fixed Income Securities and their Valuation and Management	Analyze
		To Identify the Common Stocks and to Construct the Security Market Indexes	Identify
		To Analyze the Concept of Portfolio – and Construct the minimum Risk Portfolio	Analyze
		To Evaluate Performance of Mutual Funds – Problems & Prospects in India	Evaluate
MB404.2	Consumer Behaviour	To define the conception of consumer behavior and reveal its importance in the context	Define
		To apply the theories of consumer behavior & implement appropriate combinations of	Apply
		To identify social and cultural factors impact on consumer behavior.	Apply
		To analyze consumer decision making process.	Analyze
		To evaluate models of consumer behavior.	Evaluate

MB404.3	**Performance Management**	The student will identify the factors affecting employees" job performance and the	Apply
		The student will be able to study the nature and complexity of performance management	Create
		The student will able to build performance plans in respect of employees and develop a	Apply
		The student can experiment with different methods of performance appraisals and	Apply
		The student will be able to take part in teams and link their performances with reward	Analyze
MB405.1	**Banking & Insurance**	To understad the structure of banking & insurance business in India.	Understand
		To examine the products & services in Banking & Insurance.	Examine
		To identify the regulation & innovations in the banking system.	Identify
		To evaluate the potential of Insurance business in India.	Evaluate
		To propose diversified, customised and advanced banking and insurance services to the	Propose
MB405.2	**Services & Global Marketing**	To Understand the Concept and Scope of Services – Categorization of Goods and	Understand
		To Analyze the Seven P's of Services Marketing Mix	Analyze
		To Experiment with the Strategies for Building Customer Relationship through	Experiment
		To Classify the Global Markets & the Environment of Global Marketing	Classify
		To Analyze International Brands and International Products	Analyze
MB405.3	**Talent & Knowledge Management**	To understand different approaches to talent management.	Understand
		To communicate appropriate action with employess based on their strength and	Apply
		To understand the processes of knowledge management of intensive firms.	Understand
		To apply knowledge management solutions & mechanism in business organization.	Apply
		To evaluate the impact of KM on organization performance.	Evaluate

Assessment Coordinator

HOD

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

BE COURSE OUTCOMES for ACADEMIC YEAR 2018 - 19

III SEM

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
1	BS 301 MT	EM III - Engineering Mathematics- III	CO1	**Find** solutions of first order and second order partial differential equations.	Remember
			CO2	**Apply** Fourier series to find solutions of partial differential equations.	Apply
			CO3	**Solve** complex and real integrals using residue theorem.	Apply
			CO4	**Analyze** a given function in the form of Fourier series	Analyze
			CO5	**Determine** the analyticity of a complex functions and expand functions as Taylor and Laurent series.	Evaluate
			CO6	**Classify** types of partial differential equations and find their solution.	Understand
2	ES 221 CE	MOM - Mechanics of Materials	CO1	**Understand** the theory of elasticity including strain displacement and Hooke's law relationships. and analyzing Stress-Strain diagram.	Understand
			CO2	**Analyse** the shear forces and bending moment diagrams with various types of loads (Such as point load, u.d.l and u.v.l).	Analyze
			CO3	**understand** the mohrs circle concept.(comparing uni-axial loading with mul	Evaluate
			CO4	**Evaluate** the bending and shear stresses in beams. and Strain energy in bars due to various loads.	Evaluate
			CO5	**Evaluate** the slope and deflections in beams subjected to transverse loads.	Analyze
			CO6	**Analyze** various situations of structural members subjected to combined stresses and solve the torsion problems in bars and stiffness of springs	Analyze
3	PC 301 ME	ETD - Engineering Thermodynamics	CO1	**Define** Thermodynamics concept of Zeroth law of thermodynamics, Temperature Scales and Thermodynamics Equilibrium	Remember
			CO2	**Evalu**ate Heat and work interactions and calculate work done during flow processes	Evaluate
			CO3	**Determin**e of entropy change during various thermodynamic processes	Evaluate
			CO4	**Make use** of steam Tables and Mollier diagram for properties of steam	Apply
			CO5	**Determin**e efficiency of power cycles and analyse relation between volumetric and gravimetric	Evaluate
			CO6	**Solve** for entropy change during various thermodynamic processes	Apply
4	PC 302 ME	MMS - Metallurgy and Material Science	CO1	**Understand** the structure of materials at various levels and List different typ	Understand
			CO2	**Understand** fatigue, creep failure and experimentally determine fatigue, cre	Understand
			CO3	**Understand** phase diagrams and identify various phases, composition by an	Analyze
			CO4	**Classify** different types of plain carbon steels, cast irons and explain their ap	Analyze
			CO5	**Understand** various heat treatment techniques and select a proper heat treatr	Apply
			CO6	**Understand** the various extraction processes of iron, copper and aluminium	Analyze
5	PC 303 ME	FM - Fluid Mechanics	CO1	Define the Newton's law of viscosity, types of flows and explain the mechanics of fluids at rest and in motion by observing the fluid phenomena.	Remember
			CO2	**Apply** principles of energy and momentum conservation to analyze fluid flow and compute forces exerted on control volumes due to change of momentum	Apply
			CO3	Analyze flow and pressure measurement devices and obtain relevant equations for computing flow in pipes and open channels.	Analyze
			CO4	Examine energy losses in pipe transitions and sketch energy gradient lines.	Analyze
			CO5	Evaluate pressure drop in pipe flow using Hagen-Poiseuille's equation for laminar flow in a pipe and to draw Boundary layers and separation	Evaluate
			CO6	Develop and apply laws of mass, energy and momentum conservation in compressible flow.	Create

Scanned by CamScanner

6	MC 916 CE	ES - Environmental Sciences	CO1	**Understanding** the importance of ecosystems, ecological balance for sustainable development.	Understand
			CO2	**Recognize** the significance of Natural resources, their classification and alternative energy sources for the sustainability of the environment, society and economy by appropriate maintenance of natural resources.	Remember
			CO3	**Understand** the biodiversity and types of biodiversity along with the Values and conservation of biodiversity.	Understand
			CO4	**Categorize** the types of environmental pollution and the various treatment technologies for the diminution of environmental pollutants and contaminants.	Analyze
			CO5	**Summarize** the global environmental issues and to create awareness about the international conventions and protocols for extenuating global environmental problems.	Understand
			CO6	**Understand** the sustainable development concept and importance of green building understand the importance of ES.	Understand
7	ES 361 CE	MOM Lab - Mechanics of Materials Lab	CO1	Determine the Young's modulus for ductile materials and analyze the strength of ductile materials	Evaluate
			CO2	Evaluate & Compare the hardness values for various materials by using Rockwell hardness Brinell hardness testing machine.	Evaluate
			CO3	**Experiment** with spring to interpret the stiffness and shear modulus	Apply
			CO4	Apply the concept of impact loading and to determine impact energy and toughness of various materials.	Apply
			CO5	**Determine** the Modulus of Rigidity of given material by conducting torsion	Evaluate
			CO6	**To Find** the deflection of beams and its applications due to various loads.	Remember
8	PC 351 ME	MD - Machine Drawing	CO1	To **draw** isometric and orthogonal projections and sectional views of various mechanical components.	Create
			CO2	To **draw** free hand sketches of various mechanical components	Create
			CO3	**Understand** the shape and structure of different types of joints, screws, keys and Couplings	Understand
			CO4	To **apply** sufficient knowledge to use both the software and drafter to produce assembly views of various mechanical components from part drawings.	Apply
			CO5	To **read** and **understand** the industrial drawings pertaining to industries like automobile industry, Aero-space and general engineering industries.	Remember, Understand
			CO6	**Analyse** the comparative suitability of different CAD packages for different projects.	Analyze
9	PC 352 ME	Metallurgy Lab	CO1	**Understand** the procedure for preparing the sample for metallographic obse	**Understand**
			CO2	**Demonstrate** the working principle of metallurgical microscope.	**Understand**
			CO3	**Identify** the various phases present in iron-iron carbide diagram.	**Understand**
			CO4	**Understand** the importance of grain geometry in assessing mechanical prop	**Understand**
			CO5	**Know** the procedure of identifying different materials by examining the phas	**Analyze**
			CO6	**Understand** the effects of various heat treatments by analysing the grain geo	**Analyze**

Dept. Assessment Coordinator

Head - Mechanical Department

H.O.D.
Mechnical Engineering Department
Methodist College of Engg & Tech
King Koti, Hyderabad-500 001.

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

BE COURSE OUTCOMES for ACEDEMIC YEAR 2018 - 19

IV SEM

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
1	BS 401 MT	EM IV - Engineering Mathematics- IV	CO1	**Find** the solutions of non linear equations, system of linear equations and ordinary differential equations numerically.	**Remember**
			CO2	**Interpret** the numerical solutions.	**Understand**
			CO3	**Apply** probability concepts to real time situations.	**Apply**
			CO4	**Examine** problems using Numerical methods	**Analyze**
			CO5	**Evaluate** various probability distributions to solve practical problems, to estimate unknown parameters of populations and apply the tests of hypotheses.	**Evaluate**
			CO6	**Perform** a regression analysis and to compute and solve the coefficient of correlation.	**Apply**
2	ES 422 EE	ECM - Electrical Circuits & Machines	CO1	**Define** basic electric and magnetic circuits.	Remember
			CO2	**Compare** between AC single phase and three phase circuit.	Analyze
			CO3	**Select** an electrical machine for a particular application.	Understand
			CO4	**Importance** of electrical machines in Major Industries is known to students	Evaluate
			CO5	**Develop** theoretical knowledge on Electrical Machines and able to perform experiments to find the efficiency of any Electrical Machine	Apply
			CO6	Design a machine according to the application after they gain the theoretical Knowledge on Different machines	Create
3	ES 934 EC	BE - Basic Electronics	CO1	**Explain** the basic knowledge on the working of various semi-conductor devices and there importance in the present electronics & about CRO applications	Understand
			CO2	**Apply** and develop analysis capability in BJT and FET Amplifier Circuits	Apply
			CO3	**Built** the circuit to produce pure DC signal using rectifier circuits & regulators	Create
			CO4	**Examine** Operational Amplifier circuits as Summer, differentiator, integrator, inverting and non inverting amplifiers as ideal and practical & Feed back amplifiers	Analyze
			CO5	**Evaluate** Boolean laws and theorems. State and explain the different logic gates using truth table. Analyze and design different adder circuits.	Evaluate
			CO6	**ANALYZE** the circuit to produce pure AC signal using oscillators, and produce sinusoidal oscillations with different frequencies using oscillator circuits & Study of Thristors devices .	Analyze
4	PC 401 ME	ATD - Applied Thermodynamics	CO1	**Analyze** the behavior of reciprocating compressors.	Analyze
			CO2	**Understand** the thermal design and working principles of IC Engines and their supporting systems.	Understand
			CO3	**Understand** the working principle of IC Engines and combustion phenomenon of SI and CI engines and thermal design of Combustion chambers.	Understand
			CO4	**Understand** the thermal design and working principles of Power plant devices like Boilers & Condensers.	Understand
			CO5	**Analyze** the behavior of power plants based on the Ran-kine cycle, including the effect of enhancements such as superheat, reheat and regeneration	Analyze
			CO6	Analyze the working principle and flow through the Nozzles.	Analyze

Scanned by CamScanner

5	PC 402 ME	KOM - Kinematics of Machines	CO1	**Understand** the principles of kinematic pairs, chains and their classification, DOF, inversions, equivalent chains and planar mechanisms.	Understand
			CO2	**Analyze** the planar mechanisms for position, velocity and acceleration.	Apply
			CO3	**Synthesize** planar four bar and slider crank mechanisms for specified kinematic conditions.	Apply
			CO4	**Evaluate** gear tooth geometry and select appropriate gears for the required applications.	Analyze
			CO5	**Design** cams and followers for specified motion profiles.	Evaluate
			CO6	**Apply** the forces, velocities and accelerations in different mechanisms and machines components	Apply
6	PC 403 ME	DME - Design of Machine Elements	CO1	**Evaluate** and Determine the stresses using concepts of Theories of failure, and to select proper material for machine components.	Evaluate
			CO2	**Evaluate** the Failure stress of machine components using fatigue theories of failure	Evaluate
			CO3	**Evaluate** size of the machine components for torque transmission, bending and axial loads	Evaluate
			CO4	**Analyze** the fasteners required for a given application and predicting its efficiency	Analyze
			CO5	**Analyze** type of joints, power screws,	Analyze
			CO6	**Analyze** Differential and compound screws and predicting its efficiency	Analyze
7	ES 461 EE	ECM Lab - Electrical Circuits & Machines Lab	CO1	**Analyze** the performance of DC and AC machines	Analyze
			CO2	**Explain** the basic concept of various measuring instruments along with real life circuit parameters like resistors with color code, capacitors, inductors, auto transformers with safety taken in the electrical laboratory.	Understand
			CO3	Compare theoretical and practical values after performing Experiment on basic circuits by applying theorems	Analyze
			CO4	**Measure** power and power factor in 1-phase and 3-phase ac circuits	Evaluate
			CO5	**Demonstrate** working principle and constructions of different types of electrical rotating machines along with their cut sections.	Understand
			CO6	**Show** the steady state response of series RL and RC circuits	Understand
8	ES 955 EC	BE LAB - Basic Electronics Lab	CO1	**Plot** characteristics of semi conductor diodes	**Apply**
			CO2	**Calculate** ripple factor, efficiency and % regulation of rectifier circuits	**Create**
			CO3	**Study** and performance of linear and non linear applications of op-amp	**Apply**
			CO4	**Analyze** feedback amplifiers and BJT oscillator circuits	**Apply**
			CO5	Demonstrate data converter and strain gauge measurement	**Understand**
			CO6	**Plot** the characteristics of different transistor & FET Configurations	**Apply**
9	PC 451 ME	ATD LAB - Applied Thermodynamics Lab	CO1	**Determine** volumetric efficiency and isothermal efficiency of a two stage reciprocating air compressor.	Evaluate
			CO2	**Construct** port timing diagram of two stroke engine, valve timing diagram of four stroke engine	Apply
			CO3	**Evaluate** the performance of internal combustion engines	Evaluate
			CO4	**Develop** heat balance sheet of internal combustion engine	Create
			CO5	**Determine** the properties of (flash point, fire point, viscosity) given lubricating oil	Evaluate
			CO6	**Analyze** the exhaust gases of internal combustion engines.	Analyze

Dept. Assessment Coordinator

Head - Mechanical Department

H.O.D.
Mechnical Engineering Department
Methodist Collge of Engg & Tech
King Koti, Hyderabad-500 001.

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

BE COURSE OUTCOMES ACEDEMIC YEAR 2018 - 19

V SEM

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
1	PC 501 ME	DOM - Dynamics of Machines	CO1	**Understand** free and forced vibrations of single degree freedom systems	Understand
			CO2	**Analyze** balancing problems in rotating and reciprocating machinery.	Analyze
			CO3	**Characterize** and design flywheels.	Create
			CO4	**Understand** the gyroscopic effects in ships, aero planes and road vehicles	Understand
			CO5	**Analyze** and design centrifugal governors.	Analyze
			CO6	**Design** belts, springs, brakes, clutches and engine parts.	Create
2	PC 502 ME	MP - Manufacturing Processes	CO1	**Explain** the process of pattern making,preparation of sand mould and design the gating system in casting industry	Understand
			CO2	Able to **identify** the suitable special casting process and causes of casting defects and its remedies	Apply
			CO3	**Select** the appropriate joining process according to industrial application.	Apply
			CO4	**Understand** the concepts of solid state welding and examine the weldability and defects.	Understand
			CO5	Able to **choose** the appropriate metal forming techniques to produce the components	Apply
			CO6	Able to **demonstrate** plastic molding process and concept of MEMS in manufacturing field.	Understand
3	PC 503 ME	MD - Machine Design	CO1	**Demonstrate** different types of springs and their applications, and analyze the springs for static and fluctuating loads equal to working environment	Understand
			CO2	**Distinguish** different types of gears and Show different type of materials used for making gears, and List different types of tooth failures with their remedial measures	Analyze
			CO3	**Design** spur, helical, bevel and worm gears under strength and wear considerations. complete design of suitable gear drive based on the application.	Create
			CO4	**Estimate** the load delivering capacity of situation for axial and thrust loads, moreover Compare Load –life relationship for static and cyclic loads and Understand the principle of hydro static lubrication and hydrodynamic lubrication.	Evaluate
			CO5	**Design** of piston, crank shaft and flywheel and design these components under mechanical and thermal loads.	Create
			CO6	**Compare** and contrast curvature bending and straight bending. And, Estimate the values of radius of curvature of neutral axis and centroidal axis for various commonly used cross sections in curved beams.	Understand
4	PC 504 ME	HT - Heat Transfer	CO1	**Understand** heat conduction problems in rectangular, cylindrical and spherical coordinates	Understand
			CO2	**Analyze** heat transfer through the fins and familiarize with the time dependent heat transfer	Analyze
			CO3	**Estimate** the convective heat transfer coefficient in Free and Forced convection	Evaluate
			CO4	**Determine** the radiation heat transfer by calculating the emissivities and shape factors.	Evaluate
			CO5	**Determine** the LMTD and NTU in heat exchangers	Evaluate
			CO6	**Understand** the mechanisms involved in boiling and condensation.	Understand

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

BE COURSE OUTCOMES ACEDEMIC YEAR 2018 - 19

V SEM

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
5	PC 505 ME	OR - Operations Research	CO1	**Apply** mathematical model (linear programming problem) for a physical situations like production, distribution of goods and economics	Apply
			CO2	**Understand** and Apply the concept of simplex method and its extensions to dual simplex algorith	Apply
			CO3	**Analyze** the various methods under transportation model and apply the model for testing	Analyze
			CO4	**Analyze** and apply the various replacement policy and gaming strategies for the arriving at optimal decision	Analyze
			CO5	**Analyze** and Applying the knowledge of sequencing model and to develop optimum model for job scheduling	Analyze
			CO6	**Understand** the Queuing theory models and Optimization techniques.	Understand
6	PC 506 ME	CAD/CAM - Computer Aided Designing & Manufacturing	CO1	**Understand** the basic concepts of geometric modeling and design in engineering applications.	Understand
			CO2	**Interpret** the various modeling techniques and explain the importance of solid modeling in product development.	Apply
			CO3	**Identify** the design applications and Solve numericals on transformation.	Apply
			CO4	**Develop** CNC part programs.	Create
			CO5	**Understand** various CAD/CAM technologies.	Understand
			CO6	**Identify** the entities learnt in the subject in different CAD packages available in the market based on their characteristics	Evaluate
7	MC 901 EG	GS - Gender Sensitization	CO1	**Develop** a better understanding of important issues related to gender in contemporary India.	Understand
			CO2	To **change** the basic dimensions of the biological. Sociological, psychological and legal aspects of gender through discussions, facts, everyday life, literature and film	Understand
			CO3	To **analyze** how gender discrimination works in our society and how to counter it.	Analyze
			CO4	To **identify** and plan better ways of working and living together as equals.	Apply
			CO5	To develop a sense of appreciation of women in all walks of life	Create
			CO6	To **enable** in developing good interpersonal relationships at work places and to develop a sustain interest in gender equality	Understand
8	PC551ME	CAPD & CAM Lab - Computer Aided Production Drawing & CAM Lab	CO1	**Create** the models of the components	Create
			CO2	**Demonstrate** the documentation and presentation skills	Create
			CO3	Prepare the production drawings of the parts from the given assembly drawing using suitable CAD package	Create
			CO4	Generate the bill of materials and indicate details pertaining to manufacturing requirements.	Create
			CO5	To recognize the importance of Computer Aided Manufacturing and prepare a simple part program to perform machining on a CNC machine.	Evaluate
			CO6	To produce various machine components by performing different machining operations.	Create

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

BE COURSE OUTCOMES ACEDEMIC YEAR 2018 - 19

V SEM

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
9	PC552ME	MP Lab - Manufacturing Processes Lab	CO1	Understanding the ideas for designing the patterns, green sand mould making and test the sand properties.	Understand
			CO2	**Apply** the various welding techniques to fabricate the join for different geometries.	Apply
			CO3	**Understand** the working principles of sheet metal operations and manufacture the simple components by blanking and piercing.	Understand
			CO4	Explain the Applications of plastics and manufacture a simple component by using plastic injection moulding processes. .	Understand
			CO5	Able to evaluate the quality of welded joints	Evaluate
			CO6	**Select** suitable manufacturing processes to manufacture the products optimally.	Apply
10	PC553ME	Dynamics Lab	CO1	Able to **Analyze** different types of governors	**Analyze**
			CO2	**Evaluate** effect of gyroscopic couple on vehicles	**Evaluate**
			CO3	**Evaluate** kinematic and dynamic behavior of mechanisms	**Evaluate**
			CO4	**Evaluate** static and dynamic balancing of masses	**Evaluate**
			CO5	**Analyze** natural frequencies of various beams with different constraints	**Analyze**
			CO6	**understand** Moment of Inertia of Flywheel and Connecting Rod	**Understand**

Dept. Assessment Coordinator

Head - Mechanical Department

H.O.D.
Mechnical Engineering Department
Methodist Colge of Engg & Tech
King Koti, Hyderabad-500 001.

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

BE COURSE OUTCOMES ACADEMIC YEAR 2018 - 19

VI SEM

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
1	PC 601ME	MCMT - Metal Cutting & Machine Tools	CO1	**Explain** the Tool geometry, tool materials, desired tool properties, tool life, methods of machining, Chip formation, heat generation, Machining operations, cutting fluids, tool and work holding devices etc.	Understand
			CO2	**Develop** relations for chip reduction coefficient, shear angle, shear strain, forces, power, specific energy and temperatures associated orthogonal cutting.	Analyze
			CO3	**Illustrate** the working principle, constructional features and specifications associated with common machine tools and U C M P.	Apply
			CO4	**Identify** a suitable machine tool for a particular machining operation while calculating tool life and can compare one machining process with other or one equipment with other	Apply
			CO5	**Analyse** Tool life, Economics of machining MRR, power consumption and other process parameters for various conventional and U C M P.	Analyze
			CO6	**Design** Jigs and Fixtures for various modern machining processes.	Create
2	PC602ME	RAC - Refrigeration & Air Conditioning	CO1	**Apply** the basic concepts of refrigeration, different methods of refrigeration and air refrigeration systems.	**Apply**
			CO2	**Apply** the knowledge of vapour compression Refrigeration system; analyze various parameters, equipment selection and low temperature applications.	**Apply**
			CO3	**Analyze** the working of vapour absorption refrigeration system, steam jet refrigeration systems, and non conventional refrigeration systems.	**Analyze**
			CO4	**Apply** techniques of Psychrometric chart and analyze the problems of summer, winter air conditioning.	**Apply**
			CO5	**Evaluate** the co oling load requirements, design of A/C systems, apply various RAC principles in general.	**Evaluate**
			CO6	**Build** knowledge in R&AC to solve problems in the field and design new alternate R&AC systems	**Create**
3	PC603ME	HMS - Hydraulic Machinery & Systems	CO1	**Understand** the Impact of forces acting on the Flat, Inclined and curved	Understand
			CO2	**Evaluate** the performance and work saved by fitting the air vessel to a reciprocating pump.	Analyze
			CO3	**Estimate** the specific speed, unit quantities and effects of cavitation.	Create
			CO4	**Design** and working of various types of turbines and able to draw the performance characteristic curves of turbines.	Create
			CO5	**Understand** the concepts of specific speeds	Understand
			CO6	**Understanding** the various draft tubes used in reaction turbines	Understand

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

BE COURSE OUTCOMES ACADEMIC YEAR 2018 - 19

VI SEM

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
4	PC604ME	M&I - Metrology & Instrumentation	CO1	To **understand** the concepts of limits , fits and tolerances and their applications, gauges (plug, ring & snap), end bars, linear & angular measurements by Vernier, Micrometers, Sine bar, Autocollimators.	Understand
			CO2	To **understand** the design of limit gauges, evaluate roughness and its measurement, the concepts of comparators along with their types, Optical projectors, and Microscopes for measuring flatness, roundness & coordinate geometrics.	Understand
			CO3	To **Understands** the importance of surface roughness & its measurement, gear tooth concepts with measurement, & testing of machine tools like lathe, drill & milling.	Understand
			CO4	To **understand** basic measuring system, static and dynamic characteristics of instruments and different transducers for measuring displacement, strain, load & torsion	Understand
			CO5	To **know** the concepts and various principles to measure pressure, displacement, , acceleration force, torque and vibrations temperature (thermoelectricity) with various gauges, tubes, series and parallel circuits by understanding the principles thoroughly	Remember
			CO6	Understand basic manufacturing systems,Working Principles of various measuring instruments & Design/create aninstrument to measure any physical property of the existing system	Understand
5	PC605ME	AE - Automobile Engineering	CO1	**Explain** the different parts and constructional details of the automobile engines.	Understand
			CO2	**Identify** the working of various systems like engine lubricating system and cooling system, types of ignition system and different batteries used in automobile.	Apply
			CO3	**Analyse,** the working principle of steering and suspension systems and constructional details of wheels and tyres of automobile.	Analyze
			CO4	**Evaluate** the constructional and working principle of braking system and its importance in Automobile engines.	Evaluate
			CO5	**Evaluate** the power generation in engine and transmissions of power from the engine to wheels through the clutch plates and differential gear box.	Evaluate
			CO6	**Develop** the environmental implications of automobile emissions and strong base for understanding future developments in the automobile industry.	Apply
6	PE601ME	NCES - Non-Conventional Energy Sources	CO1	**understand** the criteria of accessing the potential of NCES	Understand
			CO2	**Evaluate** the energy sources in developing countries	Evaluate
			CO3	**Analyze** the efficiencies of solar,wind,tidal and geothermal source of energy	Analyze
			CO4	**analyze** the principle of working of various non conventional energy sources	Analyze
			CO5	**Evaluate** the effect of NCES on environment and measures to prevent it.	Evaluate
			CO6	**Remember** the world energy consumption statistics and making life long learning process for updating.	Remember

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

BE COURSE OUTCOMES ACADEMIC YEAR 2018 - 19

VI SEM

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
7	PE602ME	MMFM - Modern Machining and Forming Methods	CO1	**Analyze** the suitable processes used for the manufacture of a different product	Analyze
			CO2	**Evaluate** the processes & identify suitable process when product specifications & quality requirements are given.	Evaluate
			CO3	**Recall** knowledge about different energy domains of the modern machining & forming processes.	Remember
			CO4	**Have** basic understanding of the process principles of different Metal forming methods.	Understand
			CO5	**Evaluate** the different modern machining processes & prepare reports, presentations about the same for further discussions.	Evaluate
			CO6	Carry out case studies of large scale or global industries & **evaluate** suitability of modern methods in small scale or local industries.	Evaluate
8	OE601CE	DM - Disaster Management	CO1	**Define** Disaster, Hazard, Vulnerability, Resilience, Risks and explain Natural and Manmade disasters	Remember
			CO2	**Classify** the environmental causes ,Impacts including , social, cultural, economic, legal and organizational aspects influencing vulnerabilities and capacities to face disasters	Understand
			CO3	**Classify** disasters and destructions due to cyclones floods and droughts	Understand
			CO4	**Explain** Disaster cycle, its analysis, Phases, Culture of safety, prevention, mitigation and preparedness community based DRR	Understand
			CO5	**Describe** Factors affecting Vulnerabilities, differential impacts, impact of development projects , Climate Change and Relevance of indigenous knowledge, appropriate technology and local resources.	Understand
			CO6	**Experience** on conducting independent DM study including data search, analysis and presentation of disaster case study component of disaster relief.	Apply
9	PC651ME	MMT Lab - Metrology & Machine Tools Lab	CO1	**Select** and **apply** the knowledge of measuring tools for external, internal and angular measurements , machine alignment for promoting the qualitative production management.	Apply
			CO2	**Adapt** the principles of optical measurements in measurement of screw and gear profiles	Create
			CO3	**select** the appropriate methods of force measuring devices principles for required situation, calibration principles for maintaining the required precision of instruments / tools.	Understand
			CO4	**Conduct** tests to determine temperatures and tool life in metal cutting	Apply
			CO5	Select the cutting tool matrerials and Geometries along with appropriate cutting conditions for different work materials and grind the cutting tools to the required geometry.	Understand
			CO6	**Recog nise** and **summarize** the features and applications of various machine tools like Lathe , Milling ,Drilling ,Grinding ,Shaping , Slotting etc.	Understand

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

BE COURSE OUTCOMES ACADEMIC YEAR 2018 - 19

VI SEM

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
10	PC652ME	HM Lab - Hydraulic Machinery Lab	CO1	**Understand** the concepts of hydraulic machinery.	Understand
			CO2	**Determine** the efficiencies of various pumps and draw the characteristic c	Analyze
			CO3	**Determine** the efficiencies of various turbines and draw the characteristic	Analyze
			CO4	**Determine** the coefficient of discharge of various flow meters and draw t	Analyze
			CO5	**Understanding** the principles of Hydraulic Circuits	Understand
			CO6	**Understanding** Pneumatic Circuits bys studying the models.	Understand
12	SI 671ME	Summer Internship	CO1	**Understand** and identify various materials, processes, products and their applications and limitations.	Understand
			CO2	Learn to **apply** the fundamental and advanced Technical / Engineering knowledge in real industrial situations.	Apply
			CO3	Understand the **importance** and learn through experience professional ethics, communication and adaptability skills to work in teams to solve real life problems.	Evaluate
			CO4	Understand the social, economic and administrative considerations that **influence** the working environment of industrial organizations.	Evaluate
			CO5	Learn, **understand** and sharpen the real time technical / managerial skills required to meet the industry needs.	Understand
			CO6	**Compile** the information and knowledge gained from the internship and present a written document.	Create

Dept. Assessment Coordinator

Head - Mechanical Department

H.O.D.
Mechnical Engineering Department
Methodist Collge of Engg & Tech
King Koti, Hyderabad-500 001.

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

BE COURSE OUTCOMES for ACADEMIC YEAR 2018-19

VI Year I Sem					
Course Outcomes					
S No	**Code**	**Course Title**	**CO No.**	**Course Outcome**	**TAXONOMY**
1	ME 401	TTM - Thermal Turbo Machines	CO1	**Analyze** the compressible flow patterns and apply it in ducts and other configurations with friction	Analyze
			CO2	**Analyze** the flow in ducts with heat transfer and normal shock behaviors. Also evaluate the effects of stagnation conditions.	Analyze
			CO3	**Evaluate** the thermodynamic behaviour and analyze the cycles, work done and efficiencies of rotary compressors, centrifugal compressors and axial flow compressors.	Evaluate
			CO4	**Analyze** the working of steam turbines, Impulse and Reaction turbines for nozzle efficiency, blade efficiency, work done and apply the principles in actual practice.	Analyze
			CO5	**Evaluate** the performance of gas turbines for work output and improve the gas turbine plant performance. Apply the concepts of Aircraft propulsion, Rocket propulsion and Jet propulsion.	Evaluate
			CO6	**Build** knowledge in TTM to solve problems encountered in the field.	Create
2	ME 402	M&I - Metrology and Instrumentation	CO1	To **understand** the concepts of limits , fits and tolerances and their applications, gauges (plug, ring & snap), end bars, linear & angular measurements by Vernier, Micrometers, Sine bar, Autocollimators.	Understand
			CO2	To **understand** the design of limit gauges, evaluate roughness and its measurement, the concepts of comparators along with their types, Optical projectors, and Microscopes for measuring flatness, roundness & coordinate geometries.	Understand
			CO3	To **Understands** the importance of surface roughness & its measurement, gear tooth concepts with measurement, & testing of machine tools like lathe, drill & milling.	Understand
			CO4	To **understand** basic measuring system, static and dynamic characteristics of instruments and different transducers for measuring displacement, strain, load & torsion	Understand
			CO5	To **know** the concepts and various principles to measure pressure, displacement, , acceleration force, torque and vibrations temperature (thermoelectricity) with various gauges, tubes, series and parallel circuits by understanding the principles thoroughly	Remember
			CO6	**Understand** basic manufacturing systems,Working Principles of various measuring instruments & Design/create aninstrument to measure any physical property of the existing system	Understand

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

BE COURSE OUTCOMES for ACADEMIC YEAR 2018-19

VI Year I Sem					
Course Outcomes					
S No	**Code**	**Course Title**	**CO No.**	**Course Outcome**	**TAXONOMY**
3	ME 403	FEA - Finite Element Analysis	CO1	**Apply** the stress strain relation for Elastic Problem and Analyse the shape function for One dimensional element	Apply
			CO2	**Analyse** the stiffness matrix for truss and beam	Analyze
			CO3	**Apply** the concepts of finite elemental analysis for Axysymmetric elements	Apply
			CO4	**Analyse** heat transfer analysis for 1 dimensional and 2 dimensional element	Analyze
			CO5	**Evaluate** the concepts of finite elemental analysis in 3 dimensional problems	Evaluate
			CO6	**Apply** various failure criteria for general stress states at points	Apply
4	ME 404	OR - Operation Research	CO1	**Apply** mathematical model (linear programming problem) for a physical situations like production, distribution of goods and economics	Apply
			CO2	**understand** and **Apply** the concept of simplex method and its extensions to dual simplex algorithm.	Apply
			CO3	**analyze** the various methods under transportation model and apply the model for testing	Analyze
			CO4	**Analyze** and **apply** the various replacement policy and gaming strategies for the arriving at optimal decision	Analyze
			CO5	**Analyze** and **Applying** the knowledge of sequencing model and to develop optimum model for job scheduling	Analyze
			CO6	**Understand** the Queuing theory models and Optimization techniques.	Understand
5	ME 407	AE - Automobile Engineering	CO1	**Explain** the different parts and constructional details of the automobile engines.	Understand
			CO2	**Identify** the working of various systems like engine lubricating system and cooling system, types of ignition system and different batteries used in automobile.	Apply
			CO3	**Analyse**, the working principle of steering and suspension systems and constructional details of wheels and tyres of automobile.	Analyze
			CO4	**Evaluate** the power generation in engine and transmissions of power from the engine to wheels through the clutch plates and differential gear box.	Evaluate
			CO5	**Develop** the environmental implications of automobile emissions and strong base for understanding future developments in the automobile industry.	Apply
			CO6	**Develop** the environmental implications of automobile emissions and strong base for understanding future developments in the automobile industry.	Apply

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

BE COURSE OUTCOMES for ACADEMIC YEAR 2018-19

VI Year I Sem					
Course Outcomes					
S No	**Code**	**Course Title**	**CO No.**	**Course Outcome**	**TAXONOMY**
6	ME 408	NCES - Non Conventional Energy Sources	CO1	**understand** the criteria of accessing the potential of NCES	Understand
			CO2	**Evaluate** the energy sources in developing countries	Evaluate
			CO3	**Analyze** the efficiencies of solar,wind,tidal and geothermal source of energy	Analyze
			CO4	**analyze** the principle of working of various non conventional energy sources	Analyze
			CO5	**Evaluate** the effect of NCES on environment and measures to prevent it.	Evaluate
			CO6	**Remember** the world energy consumption statistics and making life long learning process for updating.	Remember
7	ME 431	TE Lab - Thermal engineering Lab	CO1	**Determine** the effective thermal resistance in composite slabs and thermal conductivity of metal bar	Evaluate
			CO2	**Determine** heat transfer coefficient in Free &Forced convection.	Evaluate
			CO3	**Determination** of effectiveness and efficiency of parallel flow and counter flow heat exchanger	Evaluate
			CO4	**Determination** of COP of the Refrigeration test Rig and Air conditioning system	Evaluate
			CO5	**Determination** of COP of the Refrigeration test Rig and Air conditioning system	Evaluate
			CO6	**Determine** surface emissivity of a test plate& Steefan boltzman constant	Evaluate
8	ME 432	M&I Lab - Metrology and Instrumentation Lab	CO1	**Select** and **apply** the knowledge of measuring tools for external, internal and angular measurements for promoting the qualitative production management.	Apply
			CO2	**Adapt** the principles of optical measurements in measurement of screw and gear profiles.	Create
			CO3	**Choose** and practice the appropriate methods of force measuring devices principles for required situation.	Apply
			CO4	**Demonstrate** the need of machine alignment test for qualitative production.	Understand
			CO5	Practice calibration principles for maintaining the required precision of instruments / tools.	Analyze
			CO6	**Select** and practice the methods of temperature measurement	Apply

Scanned by CamScanner

METHODIST

COLLEGE OF ENGINEERING AND TECHNOLOGY

Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad

Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

BE COURSE OUTCOMES for ACADEMIC YEAR 2018-19

VI Year I Sem					
Course Outcomes					
S No	**Code**	**Course Title**	**CO No.**	**Course Outcome**	**TAXONOMY**
9	ME 433	CAE Lab	CO1	**Classify** the types of Trusses (Plane Truss & Spatial Truss) and Beams (2D & 3D) with various cross sections to determine Stress, Strains and deflections under static, thermal and combined loading	Understand
			CO2	**Analyze** Plane stress, plane strain conditions & axisymmetric loading on inplane members to predicting the failure behavior and finding the SCF	Analyze
			CO3	**Analyze** connecting rod with tetrahedron and brick elements, performing static analysis on flat & curved shells to determine stresses, strains with different boundary conditions.	Analyze
			CO4	**Predict** the natural frequencies and modes shapes using Modal, Harmonic analysis. Also finding the critical load using Buckling analysis	Create
			CO5	**Evaluate** steady state heat transfer analysis of chimney, Transient heat transfer of castings, Non-linear, Buckling analysis of shells &CFD analysis	Evaluate
			CO6	**Evaluate** the stiffness matrix, B matrix and loading matrices of beam/in plane/solid elements using MATLAB software	Evaluate
10	ME 434	Project Seminar	CO1	To **Build** the skills of Literature Survey	**Apply**
			CO2	To **Adapt** in the development work	**Create**
			CO3	To **Make use of** Team Work	**Apply**
			CO4	To **Develop** knowledge of documentation	**Apply**
			CO5	**Apply** to the present Industrial Practice	**Apply**
			CO6	To **Create** and attain innovative skills	**Create**

Dept. Assessment Coordinator

Head - Mechanical Department

H.O.D.
Mechnical Engineering Department
Methodist Collge of Engg & Tech
King Koti, Hyderabad-500 001.

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

BE COURSE OUTCOMES

ACEDEMIC YEAR 2018 - 19

IV Year - II Sem					
S No	**Code**	**Course Title**	**CO No.**	**Course Outcome**	**TAXONOMY**
1	ME 450	PD - Production Drawing	CO1	**Identify** symbols and standards to produce Production drawings.	Apply
			CO2	**Solve** limits, fits on the production drawing for designing any component.	Apply
			CO3	**Apply** geometric tolerance symbols and Specify position on production drawing.	Apply
			CO4	**Build** the surface roughness symbols and heat treatment symbols on production drawings.	Apply
			CO5	**Plan** the process sheets	Apply
			CO6	**Improve** visualization ability of surface roughness and its indications with respect to the material surface.	Create
2	ME 461	POM - Production and Operations Management	CO1	**understand** production system and their characteristics.	Understand
			CO2	**apply** forecasting and scheduling techniques to production system.	Apply
			CO3	material requirement planning and **analyze** aggregate planning techniques.	Analyze
			CO4	**Evaluate** and **Develop** the inventory system for independent demand and cost benefits	Evaluate
			CO5	**Evaluate** the inventory system for independent demand and cost benefits	Evaluate
			CO6	**apply** a wide variety of production and operation management problems in production and service organization	Apply
3	ME 463	PPE - Power Plant Engineering	CO1	**Identify** the various sources of energy for power generation and explain the working of various sub systems such as coal handling, ash handling in a steam power plant.	Apply
			CO2	**Understand** the Combustion process descriptions and the various sub systems in air and gas circuit, feed water and cooling water circuit and the working of gas turbine power plants.	Understand
			CO3	**Understand** the Descriptions of the working of a hydro power plant.	Understand
			CO4	**Describe** the working of a nuclear power plant.	Understand
			CO5	**Estimate** the cost of power generation and the environmental effects of various power plants.	Evaluate
			CO6	**Explain** the hydrological cycle and water power for electric generation	Understand
4	ME 458	Product Design and Process Planning	CO1	**Select** the right product.	Understand
			CO2	**Apply** systematic approach of product innovation.	Apply
			CO3	**Use** human machine interaction effectively.	Apply
			CO4	**Apply** the knowledge about patent filing & intellectual property rights in profession.	Apply
			CO5	**Evaluate** products properly before introducing them in the market.	Evaluate
			CO6	**Estimation** of costs for manufacture.	Evaluate

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

BE COURSE OUTCOMES

ACEDEMIC YEAR 2018 - 19

IV Year - II Sem					
S No	**Code**	**Course Title**	**CO No.**	**Course Outcome**	**TAXONOMY**
5	ME 459	Modern Machining and Forming Methods	CO1	**Analyze** the suitable processes used for the manufacture of a different product	Apply
			CO2	**Evaluate** the processes & identify suitable process when product specifications & quality requirements are given.	Apply
			CO3	**Recall** knowledge about different energy domains of the modern machining & forming processes.	Remember
			CO4	Have basic **understanding** of the process principles of different Metal forming methods.	Understand
			CO5	**Evaluate** the different modern machining processes & prepare reports, presentations about the same for further discussions.	Evaluate
			CO6	**Carry out** case studies of large scale or global industries & **evaluate** suitability of modern methods in small scale or local industries.	Evaluate
6	ME 481	Seminar	CO1	**Choose** a particular topic/ research paper from Mechanical Engineering and define the basic outline or summary of the topic / research paper.	**Remember**
			CO2	**Understand** and explain the Literature review of selected topic/research paper.	**Understand**
			CO3	**Asses** various sophisticated technologies and methodologies available in the field of Mechanical Engineering	**Evaluate**
			CO4	**Improve** oral and written communication skills and draft a report on the study applying the basic knowledge of Mechanical Engineering.	**Apply**
			CO5	**Develop** ethics by framing the required documentation without plagiarism	**Apply**
			CO6	**Make** use of MS Office utilities in making the presentation and Report.	**Apply**
7	ME 482	Project	CO1	To **Adapt** the attitude of writing reviews on the literature	**Create**
			CO2	To **Develop** practical & professional skills	**Apply**
			CO3	To **Apply** the tools and techinicals of documentations	**Apply**
			CO4	To **Make use of** the Team work	**Apply**
			CO5	To **Develop** to the industrial practice and Research Practices	**Apply**
			CO6	To **Develop** skill to work with Innovative and entrepreneurial ideas	**Apply**

Dept. Assessment Coordinator

Head - Mechanical Department

H.O.D.
Mechnical Engineering Department
Methodist Collge of Engg & Tech
King Koti, Hyderabad-500 001

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

ME COURSE OUTCOMES

I SEM - ACEDEMIC YEAR 2018 - 19

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
1	ME 2401	Finite Element Techniques	C2401.1	**Apply** the stress strain relation for Elastic Problem and Analyse the shape function for One dimensional element	Apply
			C2401.2	**Analyse** the stiffness matrix for truss and beam	Analyze
			C2401.3	**Apply** the concepts of finite elemental analysis for Axysymmetric elements	Apply
			C2401.4	**Analyse** heat transfer analysis for 1 dimensional and 2 dimensional element	Analyze
			C2401.5	**Evaluate** the concepts of finite elemental analysis in 3 dimensional problems	Evaluate
			C2401.6	**Apply** various failure criteria for general stress states at points	Apply
2	ME 2402	Computer Aided ModelingAnd Design	ME2402.1	**Understand** the design process and analyse the modelling concepts and its graphics using transformations	**understand**
			ME2402.2	**Analyse** the utility and application of wire frame modelling	**analyze**
			ME2402.3	**Understand** the concepts of surface modelling	**understand**
			ME2402.4	**Apply** the concepts of solid modelling techniques in practical software's	**apply**
			ME2402.5	**Understand** the various advanced modelling concepts and apply them practically in CAD software.	**apply**
			ME2402.6	**understand** the utility of data exchange formats	**understand**
3	ME 2306	Computer Aided Mechanical Design and Analysis	C2306.1	**Understand** the basic concepts of Bending of Plates and thermal stresses in plates	**Understand**
			C2306.2	**Understand** the basic concepts in the design of pressure vessels and Solve shrink fit stresses in pressure vessels.	**Understand**
			C2306.3	**Solve** autofrettage of thick cylinders and Analyze stress concentration	Apply
			C2306.4	**Apply** the phenomenon of buckling in the design of pressure vessels.	Apply
			C2306.5	**Understand** the importance of Eigen values and Apply these to stepped bars beams and bars.	**Understand**
			C2306.6	**Understand** the dynamic analysis	**Understand**

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

ME COURSE OUTCOMES

I SEM - ACEDEMIC YEAR 2018 - 19

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
4	ME2112	Additive Manufacturing Technology and Applications	C2112.1	**Understand** the current available layered manufacturing systems, their operating principles and their characteristics	**Understand**
			C2112.2	**Apply** solid modelling concepts and techniques in RP.	**Apply**
			C2112.3	**Identify**, characterize and select the ideal materials for a given Rapid Prototyping system.	**Apply**
			C2112.4	Be able to **select** the appropriate fabrication technology or technologies to fabricate a given product	**Evaluate**
			C2112.5	**Identify** and minimize errors that occur during conversion of CAD models	**Analyze**
			C2112.6	**Understand** and **identify** the wide applications of AM in different industrial sectors.	Apply
5	ME2111	Product Design and Process Planning	C2111.1	**Select** the right product.	**Understand**
			C2111.2	**Apply** systematic approach for product reliability, copyrights, value Engineering in product design and cost estimation of product	**Apply**
			C2111.3	**Use** of various machining processes,for, selection of materials	**Apply**
			C2111.4	**Apply** ergonomics in product design and use just-in time system for productivity.	**Apply**
			C2111.5	**Evaluate** the Role of computer in product design and management of manufacturing	**Evaluate**
			C2111.6	**Apply** rapid prototyping in product design	**Apply**
6	ME 2601	Design For Manufacturing	C2601.1	**Determine** the economic use of the raw materials	Determine
			C2601.2	**Understand** the various secondary manufacturing aspects	Understand
			C2601.3	**Understand** the underlying principles in creating various shapes in metallic components	Understand
			C2601.4	**Determine** the principles involved in non-metallic components design	Determine
			C2601.5	**Analyse** the economical assemblage process with the aid of computers	Analyze
			C2601.6	**Apply** the Design guidelines and assembly techniques to mechanical designs	Apply

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

ME COURSE OUTCOMES

I SEM - ACEDEMIC YEAR 2018 - 19

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
	ME 2431	CAD/CAM LAB	**C2431 .1**	**Apply** the basic foundation in computer aided design / manufacturing	Create
			C2431 .2	**Execute** surface modeling	Create
			C2431 .3	**Execute** sheet metal modeling	Understand
			C2431 .4	**Execute** solid modeling	Apply
			C2431 .5	**Understand** the concepts of production drawing and execute it using CAD software	Remember, Understand
			C2431 .6	**Analyse** the comparative suitability of different CAD packages for different projects.	Analyse
	ME 2033	SEMINAR -I	C2033.1	**Choose** a particular topic/ research paper from Mechanical Engineering and define the basic outline or summary of the topic / research paper.	Remember
			C2033.2	**Understand** and explain the Literature review of selected topic/research paper.	Understand
			C2033.3	**Asses** various sophisticated technologies and methodologies available in the field of Mechanical Engineering	Evaluate
			C2033.4	**Improve** oral and written communication skills and draft a report on the study applying the basic knowledge of Mechanical Engineering.	Apply
			C2033.5	**Develop** ethics by framing the required documentation without plagiarism	Apply
			C2033.6	**Make use** of MS Office utilities in making the presentation and Report.	Apply

Dept. Assessment Coordinator

Head - Mechanical Department

H.O.D.
Mechnical Engineering Department
Methodist Colige of Engg & Tech
King Koti, Hyderabad-500 001.

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

ME CAD/CAM - COURSE OUTCOMES

II SEM - ACEDEMIC YEAR 2018 - 19

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
1	ME 2301	Automation	C2301.1	**Gain** the knowledge about levels, types, features & costs of automations prevalent in the industries & **recall** the suitable ones at right time.	Remember
			C2301.2	**Understand** the principles of different automations through terminology & identify the components used in it.	Understand
			C2301.3	**Apply** the knowledge of automation to improve efficiency, accuracy & effectiveness of production processes.	Apply
			C2301.4	**Compare** the different levels & types of automations & suggest suitable ones for a given production line based on advantages & disadvantages.	Analyze
			C2301.5	**Evaluate** the effectiveness of a given automation system, identify the hurdles & plan methods to overcome them.	Evaluate
			C2301.6	**Carry out** self study & research through journals, publications & news to keep abreast of the latest trends of the industry.	Evaluate
2	ME 2403	Computer Integrated Manufacturing	C2403.1	**Understand** the basic concepts of CIM,types of engineering and product life-cycle management	Understand
			C2403.2	**Understand** CIM database and analyze the database management systems.	Analyze
			C2403.3	**Apply** computer aided process planning,MRP and cellular manufacturing in product design	Apply
			C2403.4	**Apply** DFA, DFM , FMS.	Apply
			C2403.5	**Distinguish** types of networks,network topology,network architectures & protocols and CIM models	Analyze
			C2403.6	**Understand** the future trends in manufacturing	Understand
3	ME 2404	Failure analysis and design	C2404.1	**Understand** the design fundamentals	Understand
			C2404.2	**Analyse** the utility and application of different design metho	Analyze
			C2404.3	**Understand** the concepts of fracture mechanics	Understand
			C2404.4	**Understand** the service failure analysis	Understand
			C2404.5	**Understand** the concepts related to fatigue crack propagatio	Understand
			C2404.6	**Understand** different modes of fracture failures	Understand

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

ME CAD/CAM - COURSE OUTCOMES

II SEM - ACEDEMIC YEAR 2018 - 19

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
4	ME2001	Enginnering Research Methodology	C2001.1	**Understand** the research problem,and the research process.	**Understand**
			C2001.2	**Study** and **compare** the literature content from different sources	**Analyze**
			C2001.3	**Designing** a research project from the creation of an ethical question	**Create**
			C2001.4	**Using** different methods to collect data: observation, interview, questionnaires	**Apply**
			C2001.5	**Analyse** problems by statistical techniques: ANOVA, F-test, Chi-square	**Analyze**
			C2001.6	**Develop** the style and structure of writing a report & Proposal , understand and develop various research designs for technical paper / journal article	**Apply**
5	ME 2113	Flexible Manufacturing Systems	C2113.1	**Understand** the Flexible manufacturing fundamentals	Understand
			C2113.2	**Analyse** the Flexible manufacturing methods,fms layouts	Anlyze
			C2113.3	**Understand** the manufacturing Driving Force, Justin time manufacturing , GTusing Rank order cluster technique.	Understand
			C2113.4	FMS **Design** Using bottle neck models , Cell Design,	Create
			C2113.5	**Understand** about Automated sorage and movement systems,AGV'S, Robts.	Understand
			C2113.6	**Evaluate** FMS computer , Software ,Hardware Networks , Progrmmable Logic controllers and FMS implementations.	Evaluate
6	ME 2505	Design of Press Tools	C2505.1	**Select** the right die design for cutting operation	Understand
			C2505.2	**Apply** basic knowledge for various dies pilots and punches	Apply
			C2505.3	**Explain** the design of dies	Understand
			C2505.4	**apply** analytical and graphical to identify the load center	Apply
			C2505.5	**Apply** the knowledge about design of bending and principle of stretch forming	Apply
			C2505.6	**Evaluate** for drawing calculations and read the knowledge for forming techniques	Evaluate

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

ME COURSE OUTCOMES

II SEM - ACEDEMIC YEAR 2018 - 19

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
	ME 2032	Computation lab	**ME2032.1**	**Demonstrate** the basic features of an analysis package.	Demonstrate
			ME2032.2	**Use** modern tools to formulate the problem, and able to create geometry, descritize, **apply** boundary conditions to solve problems of bars, trusses, beams, plate .	apply
			ME2032.3	**Determine** the stiffness and loading matrices for various applications	determine
			ME2032.4	**Demonstrate** the deflection of beams subjected to loads further to use the available results to draw shear force and bending moment diagrams.	Demonstrate
			ME2032.5	**Analyze** the given problem by applying basic principle to solve and demonstrate 1D and 2D heat transfer with conduction and convection .	analyze
			ME2032.6	Carry out dynamic analysis and finding natural frequencies for various boundary conditions and also **analyze** with forcing function.	analyze
	ME2034	Seminar - II	C2034.1	**Choose** a particular topic/ research paper from Mechanical Engineering and define the basic outline or summary of the topic / research paper.	Remember
			C2034.2	**Understand** and explain the Literature review of selected topic/research paper.	Understand
			C2034.3	**Asses** various sophisticated technologies and methodologies available in the field of Mechanical Engineering	Evaluate
			C2034.4	**Improve** oral and written communication skills and draft a report on the study applying the basic knowledge of Mechanical Engineering.	Apply
			C2034.5	**Develop** ethics by framing the required documentation without plagiarism	Apply
			C2034.6	**Make use** of MS Office utilities in making the presentation and Report.	Apply

Dept. Assessment Coordinator

Head - Mechanical Department

H.O.D.
Mechnical Engineering Department
Methodist Collge of Engg & Tech
King Koti, Hyderabad-500 001.

Scanned by CamScanner

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
Approved by AICTE New Delhi | Affiliated to Osmania University, Hyderabad
Estd : 2008 Address : King Koti Road, Abids, Hyderabad, Telangana, 500001 | Email : principal@methodist.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

ME CAD/CAM - COURSE OUTCOMES

III and IV SEM - ACEDEMIC YEAR 2018 - 19

S No	Code	Course Title	CO No.	Course Outcome	TAXONOMY
1	ME2035	Project Seminar	C2035.1	To **Build** the skills of Literature Survey	**Apply**
			C2035.2	To **Adapt** in the development work	**Create**
			C2035.3	To **Make use of** Team Work	**Apply**
			C2035.4	To **Develop** knowledge of documentation	**Apply**
			C2035.5	**Apply** to the present Industrial Practice	**Apply**
			C2035.6	To **Create** and attain innovative skills	**Create**
2	ME2036	Dissertatioin	C2036.1	To **Adapt** the attitude of writing reviews on the literature	**Create**
			C2036.2	To **Develop** practical & professional skills	**Apply**
			C2036.3	To **Apply** the tools and techinicals of documentations	**Apply**
			C2036.4	To **Make use of** the Team work	**Apply**
			C2036.5	To **Develop** to the industrial practice and Research Practices	**Apply**
			C2036.6	To **Develop** skill to work with Innovative and entrepreneurial ideas	**Apply**

Dept. Assessment Coordinator

Head - Mechanical Department

H.O.D.
Mechnical Engineering Department
Methodist Collge of Engg & Tech
King Koti, Hyderabad-500 001

Scanned by CamScanner