Department of Mechanical Engineering
Course Outcomes
(A.Y. 2019-2020)
Even Sem

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
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Department of Mechanical Engineering

Course Outcomes

IV Sem (A.Y. 2019-2020)

S No	Code	Course Title	Faculty Name	CO No.	Course Outcome	Taxonomy Level
1	MC112CE	Environmental Science	Ms. S. Deva Samyktha	C211.1	Describe the importance of ecosystems, ecological balance for sustainable development.	Understand
				C211.2	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
				C211.3	Explain the biodiversity and types of biodiversity along with the Values and conservation of biodiversity.	Understand
				C211.4	Categorize the types of environmental pollution and the various treatment technologies for the diminution of environmental pollutants and contaminants.	Analyze
				C211.5	Summarize the global environmental issues and to create awareness about the international conventions and protocols for extenuating global environmental problems.	Understand
				C211.6	Explain the sustainable development concept and importance of green building Explain the importance of ES.	Understand
2	MC113PY	Essesnce of Indian Traditional Knowledge	Dr. M. V. Lakshmi Devi	C212.1	outline the history of civilization in Indian context since pre-Vedic times	Understand
				C212.2	outline the various schools of Indian Philosophy	Understand
				C212.3	demonstrate the diversity in Indian Thought , Languages , regional culture , dress, living style etc.	Understand
				C212.4	Identify the various religious and social reform movements which took place in the past few centuries	Apply
				C212.5	classify the wealth of Indian Fine Arts and the diversity associated with it over the length and breadth of the country	Understand
				C212.6	List the various subjects which flourished in ancient system of education and the progression thereof to modern India.	Remember
3	HS213MP	Industrial Psychology	Dr. Prabhu Raj	C213.1	Apply the Concepts of industrial engineering and organizational structure in Industrial perspective	Apply
				C213.2	Understanding the psychological factors like Motivation, Morale, Behavioural Science, Social environment and their application in Industry	Understand
				C213.3	Evaluate Consumer behaviour towards production enrichment	Evaluate
				C213.4	Evaluate work method, work environment factors, analyze their deficiencies and identify the corrective methods for increase efficiency at work place.	Analyze
				C213.5	Identify the job related factor and individual factors to reduce the accident in industrial environment	Apply
				C213.6	Examine a Holistic and Humane approach and apprise workers in Industry	Analyze
4	BS206BZ	Biology for Engineers	Dr. Sunil Kumar	C214.1	Recall the diversity in the living world	Remember
				C214.2	Differentiate between microorganisms, plants, animals and the human system.	Understand
				C214.3	Classify the organism for its employment in real time design and planning applications.	Evaluate
				C214.4	Use of the knowledge of organism their systems and utilize to simulate, design and in planning applications.	Create
				C214.5	Utilise the knowledge to analyze, distinguish and draw inference about the functioning of the living systems.	Analyze
				C214.6	Apply this fundamental knowledge in projects related to human society.	Apply

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S No	Code	Course Title	Faculty Name	CO No.	Course Outcome	Taxonomy Level
5	ES213ME	Energy sciences and Engineering	Mr. Ali Ahmed	C215.1	Explain the basics of various sources of energy.	Understand
				C215.2	Analyse the present status of conventional energy sources	Analyze
				C215.3	Illustrate the working principles of Renewable Energy systems	Understand
				C215.4	Analyse and Compare waste heat recovery systems and energy storage.	Analyze
				C215.5	Relate energy economics, standards and future challenges	Understand
				C215.6	Explain causes of pollution, control methods and relate to pollution standards	Understand
6	PC231ME	Mechanics of Materials	Mr. V. Durgesh	C216.1	Understand the theory of elasticity including strain displacement and Hooke's law relationships. and analyzing Stress-Strain diagram.	Understand Analyze
				C216.2	Analyse the shear stresses and bending moment diagrams with various types of loads (Such as point load, u.d.l and u.v.l). and understand the mohrs circle concept.(comparing uni-axial loading with multi axial loading)	Analyze Understand
				C216.3	Evaluate the bending and shear stresses in beams. and Strain energy in bars due to various loads.	Evaluate
				C216.4	Evaluate the slope and deflections in beams subjected to transverse loads.	Evaluate
				C216.5	Analyze various situations involving structural members subjected to combined stresses and solve the torsion problems in bars.	Analyze
				C216.6	Evaluate practical problems on various springs.	Evaluating
7	PC232ME	Applied Thermodynamics	Mr. Y. Madhu M. Reddy	C217.1	Analyze the behavior of reciprocating compressors.	Analyze
				C217.2	Explain the thermal design and working principles of IC Engines and their supporting systems.	Understand
				C217.3	Describe the working principle of IC Engines and combustion phenomenon of SI and CI engines and thermal design of Combustion chambers.	Understand
				C217.4	Explain the thermal design and working principles of Power plant devices like Boilers & Condensers.	Understand
				C217.5	Analyze the behavior of power plants based on the Ran-kine cycle, including the effect of enhancements such as superheat, reheat and regeneration	Analyze
				C217.6	Analyze the working principle and flow through the Nozzles.	Analyze
8	PC233ME	Kinematics of Machinery	Mr. Srikanth / Mr. Abdul Fazal Rangdal	C218.1	Recall & relate the theoretical terms, concepts used in Machine Kinematics; position, velocity & acceleration analysis; Friction & its applications; cams & gears with their practical applications.	Understand
				C218.2	Determine the velocity & acceleration of any point on planar mechanisms with simple revolute & prismatic joints as well as gears & cams.	Apply
				C218.3	Apply the knowledge of friction to solve problems on Belts/rope drives, Brakes & Dynamometers.	Apply
				C218.4	Analyse the effect of variation in dimensions of a mechanism on motion (position, velocity & acceleration) using CAD software like OnShape or Fusion 360.	Analyze
				C218.5	Evaluate the given mechanism for potential problems in the view of requirements provided & eliminate them.	Evaluate
				C218.6	Fabricate working mechanisms using whatever material is easily available (including but not limited to plastic waste).	Create

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9	PC234ME	Manufacturing Processes	Mrs. Gayathri Lahari	C219.1	Explain the process of pattern making,preparation of sand mould and designing the gating system in the casting industry.	Understand
				C219.2	Identify the suitable special casting processes and causes of casting defects and its remedies.	Apply
				C219.3	Select the appropriate joining process according to the industrial application.	Apply
				C219.4	Illustrate the concept of solid state welding, and Examine the weldability and defects.	Understand
				C219.5	Choose the appropriate metal forming techniques to produce the components.	Apply
				C219.6	Demonstrate the plastic molding processes and concept of powder metallurgy in the manufacturing field.	Understand
10	PC262ME	Manufacturing Processes Lab	Dr. Prabhu raj / Mrs. Gayathri Lahari	C220.1	Explain the design of patterns, mould making procedures and testing the sand properties.	Understand
				C220.2	Apply the various joining techniques to fabricate different geometries.	Apply
				C220.3	Demonstrate the blanking and piercing operations for simple components.	Understand
				C220.4	Explain the Applications of plastics and manufacture a simple component by using plastic injection moulding processes.	Understand
				C220.5	Evaluate the mechanical properties of welded joints	Evaluate
				C220.6	Select suitable manufacturing processes to manufacture the products optimally.	Apply
11	PC261ME	Thermal Engineering Lab I	Mr. Y. Madhu M. Reddy / Mr. Kamal Kumar Ojha	C221.1	Determine volumetric efficiency and isothermal efficiency of a two stage reciprocating air compressor.	Evaluate
				C221.2	Construct port timing diagram and valve timing diagram of internal combustion engine.	Apply
				C221.3	Evaluate the performance of internal combustion engines	Evaluate
				C221.4	Develop heat balance sheet of internal combustion engine	Create
				C221.5	Determine the properties of given lubricating oil	Evaluate
				C221.6	Analyze the frictional power of multi cylinder engine.	Analyze

Assessment Cell Coordinator

Head- Mechanical

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Course Outcomes

VI Sem (A.Y. 2019-2020)

S No	Code	Course Title	Faculty Name	CO No.	Course Outcome	Taxonomy Level
1.0	PC 601ME	MCMT - Metal Cutting & Machine Tools	Mr. K. Prabhakar	C311.1	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
				C311.2	Develop relations for chip reduction coefficient, shear angle, shear strain, forces, power, specific energy and temperatures associated orthogonal cutting.	Analyze
				C311.3	Illustrate the working principle, constructional features and specifications associated with common machine tools and U C M P.	Understand
				C311.4	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
				C311.5	Analyse Tool life, Economics of machining MRR, power consumption and other process parameters for various conventional and U C M P.	Analyze
				C311.6	Design Jigs and Fixtures for various modern machining processes.	Create
2.0	PC602ME	RAC - Refrigeration & Air Conditioning	Dr. U. S. Vara Prasad	C312.1	Apply the basic concepts of refrigeration, different methods of refrigeration and air refrigeration systems.	Apply
				C312.2	Apply the knowledge of vapour compression Refrigeration system; analyze various parameters, equipment selection and low temperature applications.	Apply
				C312.3	Analyze the working of vapour absorption refrigeration system, steam jet refrigeration systems, and non conventional refrigeration systems.	Analyze
				C312.4	Apply techniques of Psychrometric chart and analyze the problems of summer, winter air conditioning.	Apply
				C312.5	Evaluate the co oling load requirements, design of A/C systems, apply various RAC principles in general.	Evaluate
				C312.6	Build knowledge in R&AC to solve problems in the field and design new alternate R&AC systems	Create
3.0	PC603ME	HMS - Hydraulic Machinery & Systems	Mr. K. Srinivasa Raghavan	C313.1	Explain the Impact of forces acting on the Flat, Inclined and curved plates with inlet and outlet velocity triangles and apply this to Pumps and turbine.	Understand
				C313.2	Evaluate the performance and work saved by fitting the air vessel to a reciprocating pump.	Analyze
				C313.3	Estimate the specific speed, unit quantities and effects of cavitation.	Create
				C313.4	Design and working of various types of turbines and able to draw the performance characteristic curves of turbines.	Create
				C313.5	Describe the concepts of specific speeds	Understand
				C313.6	Explain the various draft tubes used in reaction turbines	Understand
4.0	PC604ME	M&I - Metrology & Instrumentation	Mrs. I. Sowjanya / asad	C314.1	Explain 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
				C314.2	Explain 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
				C314.3	Explains the importance of surface roughness & its measurement, gear tooth concepts with measurement, & testing of machine tools like lathe, drill & milling.	Understand
				C314.4	Illustrate the basic measuring system, static and dynamic characteristics of instruments and different transducers for measuring displacement, strain, load & torsion	Understand
				C314.5	Describe 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 Explaining the principles thoroughly	Remember
				C314.6	Explain the basic manufacturing systems,Working Principles of various measuring instruments & Design/create aninstrument to measure any physical property of the existing system	Understand

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5.0	PC605ME	AE - Automobile Engineering	Dr. P. Ravi Chander	C315.1	Explain the different parts and constructional details of the automobile engines.	Understand
				C315.2	Identify the working of various systems like engine lubricating system and cooling system, types of ignition system and different batteries used in automobile.	Apply
				C315.3	Analyse, the working principle of steering and suspension systems and constructional details of wheels and tyres of automobile.	Analyze
				C315.4	Evaluate the constructional and working principle of braking system and its importance in Automobile engines.	Evaluate
				C315.5	Evaluate the power generation in engine and transmissions of power from the engine to wheels through the clutch plates and differential gear box.	Evaluate
				C315.6	Develop the environmental implications of automobile emissions and strong base for Explaining future developments in the automobile industry.	Apply
6.0	PE601ME	NCES - Non-Conventional Energy Sources	Mr. Md. Asadullah	C316.1	Illustrate the criteria of accessing the potential of NCES	Understand
				C316.2	Evaluate the energy sources in developing countries	Evaluate
				C316.3	Analyze the efficiencies of solar,wind,tidal and geothermal source of energy	Analyze
				C316.4	Analyze the principle of working of various non conventional energy sources	Analyze
				C316.5	Evaluate the effect of NCES on environment and measures to prevent it.	Evaluate
				C316.6	List the world energy consumption statistics and making life long learning process for updating.	Remember
7.0	PE602ME	MMFM - Modern Machining and Forming Methods	Mr. Srikanth Rangdal	C317.1	Analyze the suitable processes used for the manufacture of a different product	Analyze
				C317.2	Evaluate the processes & identify suitable process when product specifications & quality requirements are given.	Evaluate
				C317.3	Recall knowledge about different energy domains of the modern machining & forming processes.	Remember
				C317.4	Explain the process principles of different Metal forming methods.	Understand
				C317.5	Evaluate the different modern machining processes & prepare reports, presentations about the same for further discussions.	Evaluate
				C317.6	Carry out case studies of large scale or global industries & evaluate suitability of modern methods in small scale or local industries.	Evaluate
8.0	OE601CE	DM - Disaster Management	Dr. K. Santosh Kumar	C318.1	Define Disaster, Hazard, Vulnerability, Resilience, Risks and explain Natural and Manmade disasters	Remember
				C318.2	Classify the environmental causes ,Impacts including , social, cultural, economic, legal and organizational aspects influencing vulnerabilities and capacities to face disasters	Understand
				C318.3	Classify disasters and destructions due to cyclones floods and droughts	Understand
				C318.4	Explain Disaster cycle, its analysis, Phases, Culture of safety, prevention, mitigation and preparedness community based DRR	Understand
				C318.5	Describe Factors affecting Vulnerabilities, differential impacts, impact of development projects , Climate Change and Relevance of indigenous knowledge, appropriate technology and local resources.	Understand
				C318.6	Experience on conducting independent DM study including data search, analysis and presentation of disaster case study component of disaster relief.	Apply

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S No	Code	Course Title	Faculty Name	CO No.	Course Outcome	Taxonomy Level
9.0	PC651ME	MMT Lab - Metrology & Machine Tools Lab	Mr. R. V. Prasad & Mr. K. Prabhakar / Mrs. I. Sowjanya & Mr. Venkat Rathnam	C319.1	Identify and use various instruments for external, internal and angular measurements	Apply
				C319.2	Apply the principles of optical measurements in measuring the screw and gear profiles	Apply
				C319.3	Identify and use various types of force and temperature measurement instruments/tools.	Apply
				C319.4	Determine Shear angle, cutting forces, temperatures and tool life in metal cutting processes	Evaluate
				C319.5	Apply the knowledge of metal cutting principles to perform various machine tool operations.	Apply
				C319.6	Demonstrate the working knowledge to perform various operations on CNC machine	Understand
10.0	PC652ME	HM Lab - Hydraulic Machinery Lab	Mr. K. Srinivasa Raghavan	C320.1	Determine the impact of jet on different types of vanes	Evaluate
				C320.2	Determine the efficiencies of various pumps and draw the characteristic curves.	Evaluate
				C320.3	Determine the efficiencies of various turbines and draw the characteristic curves.	Evaluate
				C320.4	Evaluate the coefficient of discharge of various flow meters and draw the characteristic curves.	Evaluate
				C320.5	Explain the principles of Hydraulic Circuits	Understand
				C320.6	Explain Pneumatic Circuits by studying the models.	Understand

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VIII Sem (A.Y. 2019-2020)

S No	Code	Course Title	Faculty Name	CO No.	Course Outcome	Taxonomy Level
1	PE821ME	Design of Solar Energy System	Mr. Kamal Kumar Ojha	C412.1	Illustrate solar radiation and its physical function of the measuring devices	Understand
				C412.2	Compare and contract technologies of solar cell fabrication methods.	Apply
				C412.3	Calculate the required size of solar cell systems for maximum output in peak hours.	Evaluate
				C412.4	Illustrate the solar thermal system for different applications	Understand
				C412.5	Evaluate the performance of combined solar thermal and solar cell systems.	Apply
				C412.6	Formulate solar thermal systems and also developsolar hybrid systems for different applications.	Analyze
2	PE824ME	Non Destructive Testing	Mr. V. Manoj	C413.1	Illustrate the different methods of Non Destructive Testing and apply liquid penetrant test on various samples.	Apply
				C413.2	Make use of magnetic particle inspection test to identify defects in materials.	Apply
				C413.3	Inspect the imperfections using eddy current testing methods.	Analyze
				C413.4	Have an understanding of ultrasonic testing that enables them to inspect samples.	Analyze
				C413.5	Apply the knowledge of radiographic testing to examine the defects in materials.	Analyze
				C413.6	Demonstrate the acoustic emission inspection principle and its various applications.	Understand
3	PE826ME	Power Plant Engineering	Dr.Md. Fakhruddin H.N.	C414.1	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
				C414.2	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
				C414.3	Descriptions of the working of a hydro power plant.	Understand
				C414.4	Describe the working of a nuclear power plant.	Understand
				C414.5	Estimate the cost of power generation and the environmental effects of various power plants.	Evaluate
				C414.6	Explain the hydrological cycle and water power for electric generation	Understand
4	PE829ME	Product Design and Process Planning	Dr. P. Shailesh	C415.1	Select the right product.	Understand
				C415.2	Apply systematic approach of product innovation.	Apply
				C415.3	Use human machine interaction effectively.	Apply
				C415.4	Apply the knowledge about patent filing & intellectual property rights in profession.	Apply
				C415.5	Evaluate products properly before introducing them in the market.	Evaluate
				C415.6	Estimation of costs for manufacture.	Evaluate
5	PE832ME	Additive Manufacturing Technology	Dr. A. Rajasekhar	C416.1	Describe fundamentals of additive manufacturing, classify and explain advantages and disadvantages AM processes.	**Understand**
				C416.2	Describe the operating principles, capabilities, and limitations of liquid and solid based additive manufacturing systems	**Understand**
				C416.3	Explain the operating principles, capabilities and limitations of powder based additive manufacturing systems	**Understand**
				C416.4	Classify rapid tooling techniques and select suitable tooling for a given application.	**Apply**
				C416.5	Select and use right CAD data formats and AM software in additive manufacturing of a part	**Analyze**
				C416.6	Explore the potential applications of additive manufacturing in different industrial sectors	**Apply**

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6	PE834ME	Entreprenuership Development	Mr. Venkataratnam Akumarthy	C417.1	Explain the Indian Industrial Environment, Entrepreneurship and Economic growth, Small and Large Scale Industries, Types and forms of enterprises	Understand
				C417.2	Identify the characteristics of entrepreneurs, challenges of first generation entrepreneurs, environmental influences; and able choose and evaluate the idea and the choice of technology.	Apply
				C417.3	Demonstrate the principles of project formulation, analysis of market demand, Financial and profitability analysis and Technical analysis and able to evaluate the technical feasibility and financial viability of a project.	Evaluate
				C417.4	Apply the concepts of Project Management, CPM & PERT techniques, and explain the tax assessment burden.	Apply
				C417.5	Identify the Behavioural aspects of entrepreneurs, Personality determinants and attributes, Leadership concepts and models, values and attitudes and motivation aspects.	Apply
				C417.6	Demonstrate and apply Time Management principles	Apply
7	PE843ME	Waste Heat Recovery and Co-generation	Mr. Guru Vishnu	C418.1	Explain the various sources, forms, methods to store, utilization of waste heat, Technologies for waste heat recovery etc.	Understand
				C418.2	Distinguish one heat exchanger with other	Analyze
				C418.3	Make use of pressure drop consideration, LMTD, effectiveness-NTU method to design heat exchanger for waste heat recovery..	Apply
				C418.4	Apply the knowledge of First law and second law of thermodynamics and its effects on design of recuperators and parameters related to recuperators.	Apply
				C418.5	Relate the concepts of cogeneration in industrial application and power plant applications.	Understand
				C418.6	Identify the government policies, acts, environmental and institutional constraints for using the waste heat.	Apply
8	PE841ME	Energy Conservation and Management	Mr. M. Prasad	C419.1	Understand Energy conservation modeling	Understand
				C419.2	Understand different forms of energy.	Understand
				C419.3	Apply techniques for financial management, energy monitoring and targeting.	Understand
				C419.4	Evaluate the energy saving & conservation in different mechanical utilities	Evaluate
				C419.5	Understand methodology for forecasting industrial energy supply and demand.	Understand
				C419.6	Create CECP report and Management for different energy conservation instances.	Understand
9	PW961ME	Project Work- II	Dr. P. Shailesh/ U.S. Vara Prasad	C420.1	Summarize in written form the literature study carried out with relevant data analysis, interpretation and problem identification for the selected project topic.	Understand
				C420.2	Analyse the specific problem using engineering knowledge to arrive at a solution methodology	Analyze
				C420.3	Formulate an investigation procedure and analyze, interpret and synthesise the obtained data using a laboratory procedure and/or modern engineering software and tools.	Create
				C420.4	Draw valid conclusions and engineering solutions including design, recommendations or estimations, keeping in view the safety norms and regulations in codes of practice.	Understand
				C420.5	Discuss and communicate in oral and written forms, the technical contents of the project, observing professional ethical principles of documentation.	Understand
				C420.6	Demonstrate individual and teamwork skills in carrying out and managining the project work	Apply

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DEPARTMENT OF MECHANICAL ENGINEERING

BE ODD Sem (2019-2020)

CO-PO Mapping Summary Sheet

III Sem

S No	Course Code	CO No.	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
1	BS205MT	C201	3.0	2.8	2.0	-	2.0	-	-	1.0	1.0	1.0	-	-	-	-	-
2	ES211ME	C202	2.8	2.2	2.0	3.0	1.0	-	-	1.0	1.0	1.0	-	-	3.0	-	-
3	ES214EC	C203	2.8	2.7	1.7	1.7	1.0	-	-	-	1.0	-	-	-	2.8	2.0	-
4	HS201EG	C204	-	2.0	2.0	1.6	2.0	2.5	1.7	3.0	3.0	3.0	1.0	3.0	-	-	-
5	HS202CM	C205	-	2.7	-	-	-	-	-	-	-	-	2.5	-	-	-	-
6	MC111PO	C206	2.3	2.0	2.0	2.0	1.0	-	-	-	-	-	-	-	-	-	-
7	PC221ME	C207	3.0	1.5	-	2.0	1.0	-	-	1.0	1.0	1.0	-	1.0	-	1.3	-
8	PC222ME	C208	2.8	2.6	2.5	2.3	-	-	-	1.0	1.0	1.0	-	-	-	-	3.0
9	PC251ME	C209	3.0	3.0	1.8	2.7	1.5	-	-	1.0	1.0	1.0	-	1.0	1.0	1.0	-
10	PC252ME	C210	3.0	2.2	-	-	2.7	-	-	2.0	2.3	-	2.0	2.0	3.0	-	2.0

V Sem

S No	Course Code	CO No.	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
1.0	PC501ME	C301	3.0	2.8	1.7	2.7	1.7	2.7	-	1.0	2.0	2.0	1.5	2.0	3.0	-	-
2.0	PC502ME	C302	3.0	1.6	-	1.3	1.0	-	-	1.0	1.0	2.5	-	-	-	2.8	-
3.0	PC503ME	C303	3.0	3.0	2.0	2.7	-	-	-	3.0	-	3.0	-	-	-	-	3.0
4.0	PC504ME	C304	3.0	2.3	2.0	2.3	1.0	-	-	1.0	1.0	1.0	-	1.0	-	-	3.0
5.0	PC505ME	C305	3.0	2.2	1.0	2.2	1.0	-	-	1.0	1.0	1.0	3.0	-	1.0	1.3	1.0
6.0	PC506ME	C306	3.0	2.5	2.8	-	2.8	-	-	1.0	1.0	1.0	-	2.0	3.0	-	-
7.0	MC901EG	C307	-	-	2.0	-	-	2.2	3.0	2.8	3.0	3.0	-	3.0			

-	2.0	2.3	2.8	-	3.0	-	-
1.0	2.0	1.5	-	3.0	2.0	2.5	-
2.8	3.0	3.0	-	-	3.0	-	-

8.0	PC551ME	C308	2.2	-	2.7	2.5	2.5	-	1.0
9.0	PC552ME	C309	2.8	2.3	-	2.2	1.0	-	-
10.0	PC553ME	C310	2.8	2.8	-	2.8	2.5	-	-

PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
1.0	1.0	1.0	-	-	3.0	3.0	3.0
1.0	1.0	1.0	2.7	1.0	-	-	3.0
1.0	1.0	1.0	-	-	-	1.3	-
1.0	1.4	-	3.0	-	2.2	2.0	-
1.5	1.2	1.5	2.3	1.5	2.0	1.0	-
-	1.0	-	-	-	-	-	-
-	-	-	3	-	-	-	-
-	-	-	2.0	-	-	-	3.0
-	-	-	-	-	3.0	-	3.0
3.0	3.0	3.0	2.6	3.0	3.0	3.0	3.0
3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

VII Sem

S No	Course Code	CO No.	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7
1	PC701ME	C401	3.0	3.0	3.0	-	3.0	-	-
2	PC702ME	C402	3.0	3.0	3.0	2.8	3.0	2.0	-
3	PC703ME	C403	2.8	3.0	3.0	2.0	1.0	-	-
4	PC704ME	C404	3.0	2.5	-	2.0	1.8	-	-
5	OE773EC	C405	2.8	2.0	1.3	1.8	1.2	1.8	1.7
6	OE781CE	C406	3.0	2.0	1.0	2.0	-	1.8	1.0
7	HS901MB	C407	-	2.25	-	-	-	-	-
8	PC751ME	C408	3.0	3.0	3.0	3.0	-	1.0	-
9	PC752ME	C409	3.0	3.0	2.7	2.7	1.0	-	-
10	SI 671ME	C410	2.7	2.0	2.0	2.0	3.0	3.0	3.0
11	PW761ME	C411	3.0	-	-	-	3.0	3.0	3.0

Head- Mech. Engg.

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Assessment Cell Coordinator

Department of Mechanical Engineering
Course Outcomes
(A.Y. 2019-2020)
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Department of Mechanical Engineering

Course Outcomes

III Sem (A.Y. 2019-2020)

S No	Code	Course Title	Faculty Name	CO No.	Course Outcome	Taxonomy Level
1	BS205MT	Mathematics III	Mr. Naveen, Joseph/ Mr. D. Swamy	C201.1	Find the general solutions of the given differential equations.	Remember
				C201.2	Solve the wave equation, heat equations and laplace equations of given problems	Apply
				C201.3	Solve the desrete and continuos random variables and distibutions.	Apply
				C201.4	Examine the correlation coefficient and rank correlation for the given data.	Analyse
				C201.5	Determine straight line equation ,parabola equation and exponential equation.	Evaluate
				C201.6	Evaluate t-distibution F-distribution and chisquare distibutions.	Evaluate
2	ES211ME	Engineering Mechanics	Mr. Y. Madhu M. Reddy	C202.1	Apply the fundamental concepts of forces, equilibrium conditions for static loads.	Apply
				C202.2	Determine the Centroid and moment of inertia for cross various sections.	Evaluate
				C202.3	Analyse the forces in the members of a truss using method of joints and method of sections	Analyse
				C202.4	Explain the concept of friction for single and connected bodies.	Understand
				C202.5	Apply the basic concepts of dynamics, their behaviour, analysis and motion bodies	Apply
				C202.6	Solve problems involving work energy principles and impulse momentum theory.	Apply
3	ES214EC	Basic Electronics	Mr. I. POORNA CHANDER	C203.1	Explain the basic knowledge on the working of various semi-conductor devices and there importance in the present electronics	Understand
				C203.2	Apply and devclop analysis capability in BJT and FET Amplifier Circuits	Apply
				C203.3	Make use of knowledge on design trade-offs in various digital electronic families with a view towards reduced power consumption	Apply
				C203.4	Examine Operational Amplifier circuits as Summer, differentiator, integrator, inverting and non inverting amplifiers as ideal and practical	Analyze
				C203.5	Evaluate Boolean laws and theorems. State and explain the different logic gates using truth table. Analyze and design different adder circuits.	Create
				C203.6	Design the circuit to produce pure DC using regulators, and produce sinusoidal oscillations with different frequencies using oscillator circuits	Create
4	HS201EG	Effective Technical Communication in English	Mrs. Hepzibah / Mrs. Sona Laxmi	C204.1	Develop an understanding of fundamentals of Technical Communication and handle technical communication effectively	Understand
				C204.2	Demonstrate the ability to choose the right mode of Written Communication in Professional Correspondence	Apply
				C204.3	Analyze and differentiate various types of Reports and use various techniques of Report writing appropriately based on the requisite.	Analyze
				C204.4	Determine the importance of using and Writing different kinds of Manuals,their Classification, and acquire adequate skills of manual writing	Analyze
				C204.5	Estimate the deliberate value of a Visual Aid along with its usage , through the understanding of Informatioon Transfer from Verbal to Non-Verbal and Non-Verbal to Verbal.	Evaluate
				C204.6	Combine the Skill of both Oral and Visual Presentation Skills and be able to adapt to the changing scenerio of the present day.	Create
5	HS202CM	Finance and Accounting	Mr. Shyam Sunder/ Mrs. A. Brundavani	C205.1	Understand the basic concepts of financial accounting&classify preparation of various books of accounts	Understand
				C205.2	Analyze & interpret financial statements.	Analyze
				C205.3	Interpret knowledge about the functioning & working of various financial institutions.	Understand
				C205.4	Apply traditional & modern techniques of capital budgeting in long term investments, to test whether to invest in a particular project or not.	Apply
				C205.5	Analyze the liquidity ,solvency & profitability of financial statements.	Analyze
				C205.6	Evaluate the financial performance of the business unit.	Evaluate

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S No	Code	Course Title	Faculty Name	CO No.	Course Outcome	Taxonomy Level
6	MC111PO	India Constistution	Mr. Satish Yadav	C206.1	Understand the conditions prior to evolution of Indian Constitution	Understand
				C206.2	Understand the structure of Governance in Post Independent India and powers and limitations of the executive	Understand
				C206.3	relate the importance of Fundamental rights and associated duties as enshrined in the constitution	Understand
				C206.4	Develop understanding the relationship between central and state governments in terms of duties and responsibilities	Apply
				C206.5	Summarize the role of statutory bodies like Election Commission , NHRC , NCW	Understand
				C206.6	Understand the role of constitutions of different countries and the contributions of leaders	Understand
7	PC221ME	Metallurgy and Material Science	Mr. Manoj	C207.1	Explain the structure of materials at various levels and testing their mechanical properties.	Understand
				C207.2	Describe fatigue, creep failure and experimentally determine fatigue, creep strength, also list different types of fracture.	Understand
				C207.3	Explain phase diagrams and identify various phases, composition by analyzing the phase diagrams.	Analyze
				C207.4	Classify different types of plain carbon steels, cast irons and explain their applications.	Analyze
				C207.5	Explain various heat treatment techniques, effects of the alloying elements on the properties of steel and select various alloying elements for a particular engineering application.	Apply
				C207.6	Explain the properties, of non-ferrous metals, ceramics, polymers, composites and choose a particular material for an application.	Apply
8	PC222ME	Engineering Thermodynamics	Mr. K. Srinivasa Raghavan	C208.1	Define Thermodynamics concept of Zeroth law of thermodynamics, Temperature Scales and Thermodynamics Equilibrium, partial pressures and partial volumes	Remember
				C208.2	Evaluate Heat and work interactions and calculate work done during flow processes	Evaluate
				C208.3	Determine of entropy change during various thermodynamic processes	Evaluate
				C208.4	Make use of steam Tables and Mollier diagram for properties of steam	Apply
				C208.5	Determine efficiency of power cycles	Evaluate
				C208.6	Solve the problems on heat engine, heat pump and refrigerator	Apply
9	PC251ME	Metallurgy & Material Testing Lab	Dr. PRABHU RAJ & Mr. Venkatratnam / Mr. V. Manoj & Mrs. I. Sowjanya	C209.1	Apply the procedure for preparing the sample for metallographic observation.	Apply
				C209.2	Identify different materials by examining the phases in their microstructure.	Apply
				C209.3	Analyze the effects of various heat treatment by studying the grain structure	Analyze
				C209.4	Determine the tensile, compressive and impact strength for various materials	Evaluate
				C209.5	Measure hardness, shear strength and check their suitability for a given design requirement.	Evaluate
				C209.6	Determine the shear force,bending moment and Youngs modulus of different beams under various loading conditions.	Evaluate
10	PC252ME	M.D.M Lab- Machine Drawing and Modeling Lab	Dr. P. RAVI CHANDER/ Mr. Srikanth Rangdal	C210.1	Develop the skills in draftingvarious machine components using AutoCad software.	Understand
				C210.2	Interpret the conventions & symbols used in technical drawings into their physical meanings & vice versa	Understand
				C210.3	Construct orthographic views of simple machine components.	Apply
				C210.4	Demonstrate the working knowledge in solidworks to model, assemble and generate orthographic views.	Understand
				C210.5	Develop 3D models, assemble and generate drawings of components using Solidworks.	Evaluate
				C210.6	Observe 3D interactive CAD models and determine the steps used in modelling them.	Evaluate

Assessment cell Co-ordinator

Head-Mechanical

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Department of Mechanical Engineering

Course Outcomes

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S No	Code	Course Title	Faculty Name	CO No.	Course Outcome	Taxonomy Level
1.0	PC 501 ME	DOM - Dynamics of Machines	Mr. M. Prasad	C301.1	Understand the gyroscopic effects in ships, aero planes and road vehicles	Understand
				C301.2	Analyze and design centrifugal governors& Flywheels	Analyze
				C301.3	Analyze balancing problems in rotating machinery	Analyze
				C301.4	Analyze balancing problems in reciprocating machinery	Analyze
				C301.5	Understand free and forced vibrations of single degree freedom systems	Understand
				C301.6	Understand Torsional vibrations of single degree freedom systems	Understand
2.0	PC 502 ME	MP - Manufacturing Processes	Mrs. Gayathri Lahari /	C302.1	Explain the process of pattern making,preparation of sand mould and design the gating system in casting industry	Understand
				C302.2	Identify the suitable special casting process and causes of casting defects and its remedies	Apply
				C302.3	Select the appropriate joining process according to industrial application.	Apply
				C302.4	Explain the concepts of solid state welding and examine the weldability and defects.	Understand
				C302.5	Choose the appropriate metal forming techniques to produce the components	Apply
				C302.6	Demonstrate plastic molding process and concept of MEMS in manufacturing field.	Understand
3.0	PC 503 ME	MD - Machine Design	Mr. Abdul Fazal	C303.1	Demonstrate different types of springs and their applications, and analyze the springs for static and fluctuating loads equal to working environment	Analyze
				C303.2	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
				C303.3	Design spur, helical, bevel and worm gears under strength and wear considerations. complete design of suitable gear drive based on the application.	Create
				C303.4	Estimate the load delivering capacity of situation for axial and thrust loads, moreover Compare Load –life relationship for static and cyclic loads and Explain the principle of hydro static lubrication and hydrodynamic lubrication.	Evaluate
				C303.5	Design of piston, crank shaft and flywheel and design these components under mechanical and thermal loads.	Create
				C303.6	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.	Evaluate

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Course Outcomes

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S No	Code	Course Title	Faculty Name	CO No.	Course Outcome	Taxonomy Level
4.0	PC 504 ME	HT - Heat Transfer	avi Chander / Mr. M. Guru Vishnu	C304.1	Describe heat conduction problems in rectangular, cylindrical and spherical coordinates	Understand
				C304.2	Analyze heat transfer through the fins and familiarize with the time dependent heat transfer	Analyze
				C304.3	Estimate the convective heat transfer coefficient in Free and Forced convection	Evaluate
				C304.4	Determine the radiation heat transfer by calculating the emissivities and shape factors.	Evaluate
				C304.5	Determine the LMTD and NTU in heat exchangers	Evaluate
				C304.6	Explain the mechanisms involved in boiling and condensation.	Understand
5.0	PC 505 ME	OR - Operations Research	Mrs. I. Sowjanya	C305.1	Apply mathematical model (linear programming problem) for a physical situations like production, distribution of goods and economics	Apply
				C305.2	Explain and Apply the concept of simplex method and its extensions to dual simplex algorith	Apply
				C305.3	Analyze the various methods under transportation model and apply the model for testing	Analyze
				C305.4	Analyze and apply the various replacement policy and gaming strategies for the arriving at optimal decision	Analyze
				C305.5	Analyze and Applying the knowledge of sequencing model and to develop optimum model for job scheduling	Analyze
				C305.6	Explain the Queuing theory models and Optimization techniques.	Apply
6.0	PC 506 ME	CAD/CAM - Computer Aided Designing & Manufacturing	Mr. Srikanth Rangdal	C306.1	Explain the basic concepts of geometric modeling and design in engineering applications.	Understand
				C306.2	Interpret the various modeling techniques and explain the importance of solid modeling in product development.	Apply
				C306.3	Identify the design applications and Solve numericals on transformation.	Apply
				C306.4	Develop CNC part programs.	Create
				C306.5	Explain various CAD/CAM technologies.	Understand
				C306.6	Identify the entities learnt in the subject in different CAD packages available in the market based on their characteristics	Evaluate
7.0	MC 901 EG	GS - Gender Sensitization	Mrs. Hepzibah ilal /	C307.1	Develop a better Explaining of important issues related to gender in contemporary India.	Understand
				C307.2	Change the basic dimensions of the biological. Sociological, psychological and legal aspects of gender through discussions, facts, everyday life, literature and film	Understand
				C307.3	Analyze how gender discrimination works in our society and how to counter it.	Analyze
				C307.4	Identify and plan better ways of working and living together as equals.	Apply
				C307.5	Develop a sense of appreciation of women in all walks of life	Create
				C307.6	Enable in developing good interpersonal relationships at work places and to develop a sustain interest in gender equality	Understand

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S No	Code	Course Title	Faculty Name	CO No.	Course Outcome	Taxonomy Level
8.0	PC551ME	CAPD & CAM Lab - Computer Aided Production Drawing & CAM Lab	Rangdal / Mrs. I Sowjanya	C308.1	Create the models of the components	Create
				C308.2	Demonstrate the documentation and presentation skills	Understand
				C308.3	Construct the production drawings of the parts from the given assembly drawing using suitable CAD package	Apply
				C308.4	Develop the bill of materials and indicate details pertaining to manufacturing requirements.	Apply
				C308.5	Identify the importance of Computer Aided Manufacturing and prepare a simple part program to perform machining on a CNC machine.	Apply
				C308.6	Develop the process plan & produce various machine components by performing different machining operations.	Apply
9.0	PC552ME	MP Lab - Manufacturing Processes Lab	h / Mrs. Gayathri Lahari	C309.1	Explain the design of patterns, mopuld making procedures and testing the sand properties.	Understand
				C309.2	Apply the various joining techniques to fabricate different geometries.	Apply
				C309.3	Demonstrate the blanking and piercing operations for simple components.	Understand
				C309.4	Explain the Applications of plastics and manufacture a simple component by using plastic injection moulding processes.	Understand
				C309.5	Evaluate the mechanical properties of welded joints	Evaluate
				C309.6	Select suitable manufacturing processes to manufacture the products optimally.	Apply
10.0	PC553ME	Dynamics Lab	bdul Fazal / M. Prasad	C310.1	Analyze the performance and draw the characteristic curves for different types of governors.	Analyze
				C310.2	Evaluate the effect of gyroscopic couple at different speeds.	Evaluate
				C310.3	Evaluate kinematic and dynamic behavior of different types of cams.	Evaluate
				C310.4	Evaluate static and dynamic balancing of rotating masses.	Evaluate
				C310.5	Analyze natural frequencies of various beams with different constraints.	Analyze
				C310.6	Determine the critical speed for shafts of various diameter.	Evaluate

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1	PC701ME	Thermal Turbo Machinery	Dr. U. S. Vara Prasad	C401.1	Analyze the compressible flow patterns and apply it in ducts and other configurations with friction	Analyze
				C401.2	Analyze the flow in ducts with heat transfer and normal shock behaviors. Also evaluate the effects of stagnation conditions.	Analyze
				C401.3	Evaluate the thermodynamic behaviour and analyze the cycles, work done and efficiencies of rotary compressors, centrifugal compressors and axial flow compressors.	Evaluate
				C401.4	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
				C401.5	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
				C401.6	Build knowledge in TTM to solve problems encountered in the field.	Create
2	PC702ME	Finite Element Analysis	Dr. Md. Fakhrudin / Mr. Kamal Kumar Ojha	C402.1	Understand equations of elasticity and formulate finite element modeling of one dimensional element using Potential energy approach .	Understand
				C402.2	Create finite element modeling of truss and frame elements	Create
				C402.3	Rember Hermitian shape function of beam element in natural coordinate system.	Remember
				C402.4	Create stiffness matrix for a plane stress & plane strain conditions on a CST, Axisymmetric elements .	Create
				C402.5	Analyse finite element model to steady state heat transfer analysis using one & two dimensional elements	Analyze
				C402.6	Remember mass and stiffness matrices of 1D & beam elements to establish Eigen values &Eigen vectors using Lagarangian and Hamilton principles.	Remember
3	PC703ME	Industrial Engineering	Dr. Prabhu Raj	C403.1	Apply the knowledge of scientific management in industrial environment	Apply
				C403.2	Demonstrate the importance of production planning & control in manufacturing industry	Understand
				C403.3	Estimate the appropriate inventory control models and financial management practice are applied in industries	Evaluate
				C403.4	Analyses the quality control charts and sampling plan in production unit.	Analyse
				C403.5	Apply the concept of decision making theory and uncertainty risk in work place.	Apply
				C403.6	Develop industrial engineering concepts in industrial environment	Create
4	PC704ME	Production and Operation Management	Dr. P. Shailesh / Mr. R. V. Prasad	C404.1	Understand production system and develop a suitable layout	Understand
				C404.2	Remember the forecasting and scheduling techniques to the production system.	Remember
				C404.3	Material requirement planning and analyze aggregate planning techniques.	Analyze
				C404.4	Evaluate the inventory system for independent demand and cost benefit	Evaluate
				C404.5	Understand the usages of PERT/CPM techniques for a given project and develop suitable quantitative models for the projects	Understand
				C404.6	Apply a wide variety of production and operation management problems in production and service organizatio	Apply

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5	OE773EC	Fundamental of IOT	Dr. Prabhu / Dr. John	C405.1	Understand the variuos applications of IOT and other enabling technologies	Understand
				C405.2	Comprehend variuos protocols and communication technologis used in IOT	Analyze
				C405.3	Design simple IOT systems with requisite hardware and C programming software	Apply
				C405.4	Understand the relevance of cloud compution and data analytics to IOT	Understand
				C405.5	Comprehend the business model of IOT from developing a prototype to launching a product	Analyze
6	OE781CE	Road Safety Engineering	Mr. Bharath Naik	C406.1	Demonstrate about road accidents and its study objectives. Prepare accident investigation reports and database based on data collected.	Understand
				C406.2	Apply design principles for roadway geometrics improvement with various types of traffic safety appurtenances/tools	Apply
				C406.3	Explain the road safety design operations, counter measures & characteristics to manage traffic including incident management	Understand
				C406.4	Illustrate the concept of Road Safety Auditing its principles, procedures and code of good practice and checklists	Understand
				C406.5	Explain about design and working principles of road signs and traffic signals	Understand
				C406.6	Describe applications of ITS in effectively managing the traffic incidents.	Understand
7	HS901MB	Managerial Economics and Accountancy	Mrs. A. Brindavani	C407.1	Understand the responsibility of a manager and fundamental concepts of managerial economics	Understand
				C407.2	Understand demand analysis and determinants of demand	Understand
				C407.3	Analyse production and markets and compute the future sales level	Analyze
				C407.4	Apply traditional & modern techniques of capital budgeting in long term investments, to test whether to invest in a particular project or not.	Apply
				C407.5	Understand the basic concepts of financial accounting&classify preparation of various books of accounts&Analyze & interpret financial statements.	Understand
				C407.6	Develop the ability to apply the concepts, tools and techniques of economics in analysing and interpreting business decisions.	Apply
8	PC751ME	Thermal Engineering Lab	Mr. Y. Madhu M. Reddy / Mr. K. Srinivasa Raghavan	C408.1	Analyze the effective thermal resistance in composite slabs and thermal conductivity of metal bar	Analyze
				C408.2	Evaluate heat transfer coefficient in Free &Forced convection.	Evaluate
				C408.3	Evaluate the effectiveness and efficiency of parallel flow and counter flow heat exchanger	Evaluate
				C408.4	Analyze the COP of the Refrigeration test rig aand Pressure distribution of specimen in wind tunnel.	Analyze
				C408.5	Analyze the overall efficiency of axial flow fan &Centrifugal blower	Analyze
				C408.6	Evaluate the surface emissivity of a test plate& Stefan Boltzmann constant	Evaluate
9	PC752ME	CAE Lab	Dr.Md. Fakhruddin H.N. / Mr. Kamal Kumar Ojha	C409.1	Analyse 2D, 3D truss to determine stress and strain in mechanical memeber.	Analyze
				C409.2	Measure internal Pressure in case of Curved shell.	Evaluate
				C409.3	Measure buckling & natural frequencies and mode shapes of Cantilever Beam.	Evaluate
				C409.4	Analyse static stress analysis in case of plate with a hole .	Analyze
				C409.5	Analyse two dimesional heat conduction in case of a plate .	Analyze
				C409.6	Evaluate Heat Conduction in case of composite wall.	Analyze

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11	SI 671ME	Summer Internship	Dr. A. Rajasekhar / Dr. P. Shailesh	C410.1	Explain and identify various materials, processes, products and their applications and limitations.	Understand
				C410.2	Apply the fundamental and advanced Technical / Engineering knowledge in real industrial situations.	Apply
				C410.3	Explain the importance and learn through experience professional ethics, communication and adaptability skills to work in teams to solve real life problems.	Evaluate
				C410.4	Explain the social, economic and administrative considerations that influence the working environment of industrial organizations.	Evaluate
				C410.5	Explain and sharpen the real time technical / managerial skills required to meet the industry needs.	Understand
				C410.6	Compile the information and knowledge gained from the internship and present a written document.	Create
12	PW761ME	Project Work - I	Dr.Md. Fakhruddin H.N. / Dr. U. S. Vara Prasad	C411.1	Adapt the attitude of writing reviews on the literature	Create
				C411.2	Develop practical & professional skills	Apply
				C411.3	Apply the tools and technicals of documentations	Apply
				C411.4	Make use of the Team work	Apply
				C411.5	Develop to the industrial practice and Research Practices	Apply
				C411.6	Develop skill to work with Innovative and entrepreneurial ideas	Apply

Assessment Cell Coordinator

Head- Mechanical

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

Department of Mechanical Engineering
CO-PO Mapping Summary
(A.Y. 2019-2020)
Odd Sem

METHODIST
COLLEGE OF ENGINEERING AND TECHNOLOGY
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DEPARTMENT OF MECHANICAL ENGINEERING

BE Even Sem (2019-2020)

CO-PO Mapping Summary Sheet

IV Sem

S No	Course Code	CO No.	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
1	MC112CE	C211	-	-	-	3.0	3.0	2.0	3.0	2.7	-	-	-	2.8	-	-	-
2	MC113PY	C212	2.3	2.0	2.0	2.0	1.0	-	-	-	-	-	-	-	2.3	-	1.0
3	HS213MP	C213	2.3	2.0	2.0	2.0	1.0	-	-	-	-	-	-	-	2.3	-	1.0
4	BS206BZ	C214	3.0	2.3	-	-	-	-	2.5	2.3	2.8	-	-	3.0	-	-	-
5	ES213ME	C215	2.3	1.7	1.0	2.0	-	-	3.0	2.3	3.0	3.0	2.0	-	-	-	3.0
6	PC231ME	C216	-	3.0	2.7	2.7	3.0	2.7	-	1.0	1.0	1.0	-	-	2.4	-	1.0
7	PC232ME	C 217	3.0	2.3	2.0	2.0	1.0	-	-	1.0	1.0	1.0	-	-	3.0	-	3.0
8	PC233ME	C218	2.8	2.6	2.0	-	2.3	-	2.0	2.0	2.0	2.3	-	2.3	3.0	1.3	1.7
9	PC234ME	C219	2.8	1.6	-	1.3	1.0	-	-	1.0	1.0	2.5	-	-	-	2.8	-
10	PC262ME	C220	2.8	2.3	-	1.8	0.0	-	-	1.0	2.0	1.5	-	3.0	2.5	3.0	-
11	PC261ME	C221	3.0	2.2	2.0	3.0	-	-	3.0	-	2.5	2.0	2.3	2.5	-	-	3.0

VI Sem

S No	Course Code	CO No.	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
1	PC 601ME	C311	3.0	2.0	2.0	2.0	1.0	-	-	-	1.0	1.0	-	-	-	2.7	-
2	PC602ME	C312	3.0	3.0	3.0	-	3.0	-	-	1.0	1.0	1.0	-	-	-	-	3.0
3	PC603ME	C313	2.8	2.5	3.0	2.3	1.0	-	-	1.0	1.0	1.0	-	-	-	-	3.0
4	PC604ME	C314	2.0	2.2	2.2	2.0	1.7	1.5	1.3	1.0	1.7	1.3	1.8	1.5	-	-	-
5	PC605ME	C315	3.0	1.7	2.3	1.5	1.0	-	-	1.0	1.0	1.0	-	-	-	-	2.5
6	PE601ME	C316	3.0	2.8	1.7	2.3	2.8	2.2	3.0	3.0	-	-	-	3.0	-	-	3.0
7	PE602ME	C317	3.0	1.8	2.0	2.3	2.3	2.0	1.0	-	2.0	2.0	2.0	3.0	-	3.0	-
8	OE601CE	C318	2.0	2.2	-	3.0	-	2.0	3.0	-	-	-	-	-	-	-	-
9	PC651ME	C319	3.0	1.7	-	-	-	-	-	1.0	1.0	1.0	-	-	-	3.0	-
10	PC652ME	C320	3.0	2.2	2.0	1.0	1.0	-	-	1.0	1.0	1.0	-	1.0	-	-	3.0

VIII Sem

S No	Course Code	CO No.	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
1	PE821ME	C412	3.0	2.2	2.2	2.0	1.5	1.2	1.0	-	1.0	1.0	-	1.0	1.0	1.0	-
2	PE824ME	C413	3.0	2.3	-	1.6	1.0	-	-	1.0	1.0	1.0	-	1.0	-	2.7	-
3	PE826ME	C414	3.0	2.5	2.0	2.0	1.0	-	1.5	2.0	1.0	1.0	1.3	2.5	-	-	3.0
4	PE829ME	C415	3.0	2.3	1.7	2.0	1.3	3.0	-	1.0	1.0	1.0	-	-	-	2.2	-
5	PE832ME	C416	2.8	2.0	2.5	3.0	2.0	-	2.0	1.0	1.0	1.0	-	3.0	3.0	3.0	-
6	PE834ME	C417	2.8	2.5	1.3	3.0	1.0	1.0	3.0	3.0	3.0	3.0	3.0	1.0	-	-	-
7	PE843ME	C418	3.0	1.8	1.3	2.0	1.0	-	3.0	1.0	1.0	1.0	-	-	-	-	2.6
8	PE841ME	C419	1.0	1.3	1.7	1.0	1.0	1.3	1.0	1.5	-	1.0	2.0	1.0	-	-	-
9	PW961ME	C420	3.0	3.0	2.0	2.0	2.3	3.0	2.0	1.7	3.0	2.3	3.0	2.2	3.0	3.0	3.0

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