



Koneru Lakshmaiah Education Foundation

(Category -1, Deemed to be University estd. u/s. 3 of the UGC Act, 1956)

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Department of Mechanical Engineering

Program: M.Tech-Thermal Engineering

Academic Year :2020-2021

S.No	Course Code	Course Title	Co No.	Course Outcome Description
1	18ME5109	NUMERICAL METHODS IN THERMAL ENGINEERING	CO1	Apply mathematical knowledge in Solving an algebraic or transcendental equation, linear system of equations
			CO2	Apply knowledge of differential equations in appropriate numerical method. Solving the initial boundary value problems and boundary value problems using finite
			CO3	Apply knowledge of finite element methods in selection of appropriate numerical methods to solve various types of problems
			CO4	Apply knowledge of engineering and science in consideration the minimum number of mathematical operations involved, accuracy requirements and available computational resources.
2	18ME5110	ADVANCED THERMODYNAMICS	CO1	Apply thermodynamics concepts for various applications like availability analysis and thermodynamic relations
			CO2	Analyze Phase transition, types of equilibrium and stability, multi component and multi-phase systems, equations of state. Chemical thermodynamics, combustion. Third law of thermodynamics
			CO3	Analyze the basic concepts of Statistical and Irreversible thermodynamics.
			CO4	Analyze the behavior of real gas behavior, availability analysis, statistical and irreversible thermodynamics
3	18ME5111	DESIGN OF THERMAL SYSTEMS	CO1	Apply the modelling concepts to the design of thermal systems
			CO2	Analyze the design of thermal systems by considering its economic viability
			CO3	Analyze about the problem formulation for optimization and its search methods and understanding Lagrange multiplier

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14	18ME5216	MEASUREMENTS IN THERMAL ENGINEERING	CO3	ply various experimental measurement techniques for the measurement of field quantities with probe and non-instructive techniques
			CO4	Evaluate the measurement of derived quantities and analytical methods and design and conduct the experiments, as well as to organize, analyze and interpret data to produce meaningful conclusions and recommendations
15	18ME52G1	PRINCIPLES OF TURBO MACHINERY	CO1	Analyze the design principles of turbomachinery to improve and optimize its performance
			CO2	sign and analyses the performance of Turbo machines for engineering applications
			CO3	Analyze the energy transfer process in Turbomachines and governing equations of various forms.
			CO4	Design various Turbomachines for power plant and aircraft applications
16	18ME52G2	GAS TURBINE ENGINEERING	CO1	Apply the concepts of air standard cycle to analyze the performance of ideal and actual gas turbine cycles
			CO2	Apply gas turbine theory to jet propulsion and understand fabrication techniques of components.
			CO3	Analyse the Performance of compressors and combustion chambers
			CO4	Analyze the Performance of gas turbine and cogeneration systems.
17	18ME52G3	TURBO COMPRESSORS	CO1	Apply the concepts of thermodynamics to analyze compression and expansion processes
			CO2	Analyze the performance of compressors and centrifugal blowers
			CO3	Analyze the performance of turbines
			CO4	Analyze the Performance of compressors, centrifugal blowers and fans.
18	18ME52H1	ENERGY CONSERVATION, MANAGEMENT AND AUDIT	CO1	Analyze the present energy scenario and understand the need of energy conservation
			CO2	Apply various instruments in energy audit
			CO3	ply various measures of energy conservation and financial implications for various thermal utilities.
			CO4	audit the power plants, the various measures for energy conservation and financial implications for various thermal utilities.
			CO1	Understand concept of various forms of Non-renewable and renewable energy


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19	18ME52H2	RENEWABLE ENERGY TECHNOLOGY	CO2	line division aspects and utilization of renewable energy sources for both domestic and industrial applications
			CO3	Study the environmental and cost economics of using renewable energy sources compared to fossil fuels
			CO4	Understand the commercial energy and renewable energy sources. Know the working principle of various energy systems
20	18ME52H3	SOLAR ENERGY AND WIND ENERGY	CO1	pose to Solar energy and its applications, wind energy and its applications, alternate energy sources
			CO2	Demonstrate the importance of renewable energy source and various applications of solar and wind systems
			CO3	Preliminary analysis related to wind energy systems and design of solar PV and solar thermal systems
			CO4	Identify the power electronic converters for solar PV and wind energy systems



Professor I/C Academics



HOD-ME
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