



**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**II YEAR II SEMESTER COURSE OUTCOMES**

SL.No.	COURSE CODE:	R2022021	COURSE NAME:	PYTHON PROGRAMMING
1	CO1:	Develop essential programming skills in computer programming concepts like data types, containers		
	CO2:	Apply the basics of programming in the Python language Solve coding tasks related		
	CO3:	Conditional execution, loops		
	CO4:	Solve coding tasks related to the fundamental notions and techniques used in object- oriented programming		
2	COURSE CODE:	R2022022	COURSE NAME:	DIGITAL ELECTRONICS
	CO1:	Classify different number systems and apply to generate various codes.		
	CO2:	Use the concept of Boolean algebra in minimization of switching functions		
	CO3:	Design different types of combinational logic circuits.		
	CO4:	Apply knowledge of flip-flops in designing of Registers and counters		
CO5:	The operation and design methodology for synchronous sequential circuits and algorithmic state machines.			
3	COURSE CODE:	R2022023	COURSE NAME:	POWER SYSTEMS - I
	CO1:	Identify the different components of thermal power plants.		
	CO2:	Identify the different components of nuclear Power plants.		
	CO3:	Identify the different components of air and gas insulated substations.		
	CO4:	Identify single core and three core cables with different insulating materials.		
CO5:	Analyse the different economic factors of power generation and tariffs.			
4	COURSE CODE:	R2022024	COURSE NAME:	INDUCTION AND SYNCHRONOUS MACHINES
	CO1:	Explain the operation and performance of three phase induction motor.		
	CO2:	Analyze the torque-speed relation, performance of induction motor and induction generator		
	CO3:	Implement the starting of single phase induction motors.		
	CO4:	Develop winding design and predetermine the regulation of synchronous generators.		
CO5:	Explain hunting phenomenon, implement methods of starting and correction of power factor with synchronous motor			
5	COURSE CODE:	R2022015	COURSE NAME:	MANAGERIAL ECONOMICS & FINANCIAL ANALYSIS
	CO1:	The Learner is equipped with the knowledge of estimating the Demand and demand elasticities for a product.		
	CO2:	The knowledge of understanding of the Input-Output-Cost relationships and estimation of the least cost combination of inputs		
	CO3:	The pupil is also ready to understand the nature of different markets and Price Output determination under various market conditions and also to have the knowledge of different Business Units		
	CO4:	The Learner is able to prepare Financial Statements and the usage of various Accounting tools for Analysis		
CO5:	The Learner can able to evaluate various investment project proposals with the help of capital budgeting techniques for decision making.			

6	<b>COURSE CODE:</b>	<b>R2022025</b>	<b>COURSE NAME:</b>	<b>PYTHON PROGRAMMING LAB</b>
	<b>CO1:</b>	Write, Test and Debug Python Programs		
	<b>CO2:</b>	Use Conditionals and Loops for Python Programs		
	<b>CO3:</b>	Use functions and represent Compound data using Lists, Tuples and		
	<b>CO4:</b>	Dictionaries Use various applications using python		
7	<b>COURSE CODE:</b>	<b>R2022026</b>	<b>COURSE NAME:</b>	<b>INDUCTION AND SYNCHRONOUS MACHINES LAB</b>
	<b>CO1:</b>	Assess the performance of single phase and three phase induction motors.		
	<b>CO2:</b>	Control the speed of three phase induction motor.		
	<b>CO3:</b>	Predetermine the regulation of three-phase alternator by various methods.		
	<b>CO4:</b>	Find the $X_d/X_q$ ratio of alternator and asses the performance of three-phase synchronous motor		
<b>CO5:</b>	Determine the performance of single phase AC series motor			
8	<b>COURSE CODE:</b>	<b>R2022027</b>	<b>COURSE NAME:</b>	<b>DIGITAL ELECTRONICS LAB</b>
	<b>CO1:</b>	Learn the basics of gates, filp-flops and counters.		
	<b>CO2:</b>	Construct basic combinational circuits and verify their functionalities		
	<b>CO3:</b>	Apply the design procedures to design basic sequential circuits		
	<b>CO4:</b>	To understand the basic digital circuits and to verify their operation		
<b>CO5:</b>	Apply Boolean laws to simplify the digital circuits.			
9	<b>COURSE CODE:</b>	<b>R2022028</b>	<b>COURSE NAME:</b>	<b>SKILL ORIENTED COURSE IOT APPLICATIONS OF ELECTRICAL ENGINEERING</b>
	<b>CO1:</b>	Apply various technologies of Internet of Things to real time applications.		
	<b>CO2:</b>	Apply various communication technologies used in the Internet of Things.		
	<b>CO3:</b>	Connect the devices using web and internet in the IoT environment.		
<b>CO4:</b>	Implement IoT to study Smart Home, Smart city, etc.			
10	<b>COURSE CODE:</b>	<b>R202202</b>	<b>COURSE NAME:</b>	<b>COMMUNICATION SYSTEMS (Honors Engineering Course)</b>
	<b>CO1:</b>	Understand the basics of communication system, analog and digital modulation techniques.		
	<b>CO2:</b>	Apply the knowledge of digital electronics and understand the error control coding techniques.		
<b>CO3:</b>	Summarize different types of communication systems and its requirements.			
11	<b>COURSE CODE:</b>	<b>R202202</b>	<b>COURSE NAME:</b>	<b>ELECTRICAL WIRING, ESTIMATION AND COSTING (Honors Engineering Course)</b>
	<b>CO1:</b>	Demonstrate the various electrical apparatus and their interconnections.		
	<b>CO2:</b>	Examine various components of electrical installations.		
	<b>CO3:</b>	Estimate the cost for installation of wiring for different types of building and small industries.		
	<b>CO4:</b>	Illustrate the components of electrical substations.		
<b>CO5:</b>	Design suitable control circuit for starting of three phase induction motor and synchronous motor.			

<b>12</b>	<b>COURSE CODE:</b>	<b>R202202</b>	<b>COURSE NAME:</b>	<b>ELECTRICAL DISTRIBUTION SYSTEMS (Honors Engineering Course)</b>	
	<b>C01:</b>	Discriminate various factors of distribution system - load modelling and characteristic of loads.			
	<b>C02:</b>	Know the concept of design considerations of substation and feeders.			
	<b>C03:</b>	Determine the voltage drop and power loss for different types of distribution loads.			
	<b>C04:</b>	Analyse the protection and its coordination for distribution systems.			
	<b>C05:</b>	Analyse the effect of compensation for p.f improvement and voltage improvement.			
<b>13</b>	<b>COURSE CODE:</b>	<b>R202202</b>	<b>COURSE NAME:</b>	<b>FUNDAMENTALS OF ELECTRICAL CIRCUITS (Minors Engineering Course)</b>	
	<b>C01:</b>	Understand about the basic elements of electrical circuits.			
	<b>C02:</b>	Learn to do steady state analysis of single-phase AC systems.			
	<b>C03:</b>	Apply network theorems to analyze electrical circuits.			
	<b>C04:</b>	Learn to analyze three-phase balanced and unbalanced circuits			
	<b>C05:</b>	Perform transient analysis of different RL, RC & RLC circuits			
<b>14</b>	<b>COURSE CODE:</b>	<b>R202202</b>	<b>COURSE NAME:</b>	<b>CONCEPTS OF ELECTRICAL MEASUREMENTS (Minors Engineering Course)</b>	
	<b>C01:</b>	Choose right type of instrument for measurement of ac and dc voltage and current.			
	<b>C02:</b>	Analyse the operation of wattmeter and energy meter.			
	<b>C03:</b>	Differentiate the operation of AC and DC bridges.			
	<b>C04:</b>	Describe the operation various Transducers.			
	<b>C05:</b>	Know the importance of Digital Meters and their working principles.			

**PRINCIPAL**