



**DEPARTMENT OF ELECTRICAL ENGINEERING**

**2.6.1. Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website and attainment of POs and COs are evaluated (SEM – VII – C – SCHEME )**

**2022 REGULATION-COURSE OUTCOMES**

SEMESTER	COURSE CODE	COURSE NAME	COURSE ID	COURSE OUTCOME
VII	EEC701	Electrical Drives & Control	CO 1	To apply the knowledge of dynamics to solve problems on electrical drives.
			CO 2	To select the power rating of a motor based on duty cycle
			CO 3	To illustrate the modes of operation and control schemes (both open and closed loop) of electrical drive
			CO 4	To analyze the speed control of DC drives with waveforms
			CO 5	To analyze various methods of speed control and braking methods used in induction motor drives
			CO 6	To describe the advanced control techniques used in induction motor drives
VII	EEC702	Electrical Power System III	CO 1	Solve Load scheduling and unit commitment problem .
			CO 2	Define and classify power system stability
			CO 3	Determine critical clearing angle using techniques like equal area criterion
			CO 4	Formulate load flow problem and solve it by using different techniques
			CO 5	Model single area load frequency control and analyse its steady state and dynamic behavior
			CO 6	Understand concept of interchange of power and energy
VII	EEDO7012	HVDC Transmission Systems	CO 1	1. Identify significance of dc over ac transmission systems, types of HVDC link, Components of HVDC system and applications.
			CO 2	Analyze multi-pulse converters
			CO 3	Illustrate the basic control of HVDC system and its limitation, features and implementation
			CO 4	Describe the converter firing control schemes for starting and stopping of HVDC link.
			CO 5	Understand and analyze faults and protection of HVDC system
			CO 6	Illustrate the harmonics, their causes, effects and use of different filters



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<b>VII</b>	<b>EEDO7024</b>	<b>Electrical Machine Design</b>	<b>CO 1</b>	Understand the construction and performance characteristics of electrical machines.
			<b>CO 2</b>	Understand the various factors which influence the design: electrical, magnetic and thermal loading of electrical machines
			<b>CO 3</b>	Understand the principles of electrical machine design and carry out a basic design of an ac machine
			<b>CO 4</b>	Use software tools to do electrical machine design calculations
<b>VII</b>	<b>EEIO7018</b>	<b>Energy Audit and Management</b>	<b>CO 1</b>	To understand the importance energy security for sustainable development and the fundamentals of energy conservation.
			<b>CO 2</b>	To introduce performance evaluation criteria of various electrical and thermal installations to facilitate the energy management
			<b>CO 3</b>	To relate the data collected during performance evaluation of systems for identification of energy saving opportunities
			<b>CO 4</b>	

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<b>VIII</b>	<b>EEC801</b>	<b>Electrical System Design, Management and Auditing</b>	<b>CO 1</b>	To do sizing, selecting transformer, switchgear and cable as required for distribution system.
			<b>CO 2</b>	To illustrate Engineering knowledge in energy audit and energy efficient technologies to improve energy efficiency
			<b>CO 3</b>	Describe the energy conservation through energy monitoring and targeting
			<b>CO 4</b>	Analyse and Evaluate the energy audit data for targeting possible opportunities of energy saving
<b>VIII</b>	<b>EEDO8011</b>	<b>Power Quality and FACTs</b>	<b>CO 1</b>	<ol style="list-style-type: none"> <li>1. Illustrate the aspects of flexible ac transmission system over conventional ac transmission system</li> <li>2. .</li> <li>3. .</li> </ol>



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				4.
			<b>CO 2</b>	Analyze the concept of load compensation.
			<b>CO 3</b>	Categorize the static shunt and series compensation for transmission line
			<b>CO 4</b>	Outline the concept of voltage and phase angle regulators. Understand unified power flow controllers using circuit diagram and phasor
<b>VIII</b>	<b>EEDO8021</b>	<b>Power System Planning and Reliability</b>	<b>CO 1</b>	To explain the basic modelling of power system components for reliability evaluation and planning.
			<b>CO 2</b>	To describe load forecasting models for short-term and long-term power system planning.
			<b>CO 3</b>	To describe the methodologies to solve generation system reliability calculation and generation planning
			<b>CO 4</b>	To describe how to calculate reliability indices for combined generation and transmission systems
			<b>CO 5</b>	To carry out planning and reliability for distribution system
<b>VIII</b>	<b>EEIO8029</b>	<b>Environmental Management</b>	<b>CO 1</b>	Understand the concept of environmental management
			<b>CO 2</b>	Understand ecosystem and interdependence, food chain etc
			<b>CO 3</b>	.Understand and interpret environment related legislations