Department: Electrical Engineering

Course Outcomes

Third Year - Odd Semester

Semester	Course Code	Course Name	Course Outcome
V	BTEEC501	Power System Analysis	Study different parameters of power system operation and control
			Study load flow and Diff. methods of reactive power control
			Understand diff. methods of fault analysis and stability study
V	BTEEC502	Micropressor and micro Controller	Study the architecture of 8085.
			Understand interfacing of 8085 and 8051.
			Understand interrupt features of 8085 and 8051.
			Develop program for basic applications.
			Understand typical applications of 8085 & 8051
V	BTEEC503	Power Electronics	Review principle of construction, operation and characteristics of basic semiconductor devices
			Understand and analyze performance of controlled and uncontrolled converters.
			Understand and analyze performance of DC to DC converters. DC to AC converters.
			Understand AC to AC Power conversion using choppers and Cyclo converters
			Understand and analyze performance of AC voltage controllers.
V	BTEEPE 504A	Group B (HVDC)	Understand importance, configuration & types of HVDC transmission.
			Understand benefits, roles & realities of types of FACTs controllers.
			Analyze the reactive power control and VAR sources.
			Analyze the operation of variable impedance type series compensator.
			Understand types of STATCOM and working of UPFC.
V	BTEEOE 505	Group C (Embedded System)	Understand the Embedded System Design
			Understand working and applications of Sensor and Actuator.
			Understand Real time operating systems.
			Understand the Embedded Systems Architecture and working.
			Understand different Embedded Networks.

V	**BTEEL507**	**Power System Analysis Lab**	Study different parameters of power system operation and control
			Study load flow and Diff. methods of reactive power control
			Understand diff. methods of fault analysis and stability study
V	**BTEEL508**	**Microprocessor and Microcontroller Lab**	To study assembly language programming.
			To analyze different flags in 8085 after execution of program.
			To study interfacing with 8085.
V	**BTEEL509**	**Power Electronics Lab**	Use the power electronics simulation packages to develop the power converters.
			Analyze the different converters output waveforms for R and RL loads
			Understand operating principle of various power electronics circuits//converter.
VI	**BTEEC601**	**Switchgear and Protection**	Understand the concept of protective relay
			Understand the concept of static and Numerical Relay
			Understand the concept of Circuit breaker and Fuses
			Understand the concept of protection of Transmission Line
			Understand the concept of protection of Transformer and Alternator Protection

Third Year - Even Semester

Semester	Course Code	Course Name	Course Outcome
VI	**BTEEC602**	**Electrical Machine Design**	Explain principles of electric machine design.
			Explain different types of electrical apparatus
			Describe types and parameters of AC and DC windings
			Explain Heating, Cooling and Ventilation for electrical machine
			Design Transformer for different ratings
VI	**BTEEC603**	**Control System Engineering**	Study the different basic concepts and components of a control system.
			Derive transfer functions of basic control system components.
			Analyze stability analysis using time domain response on a given system.
			Design and analyze PID controller.
			Understand and analyze state variable technique.

VI	**BTEEPE 604**	**Group D (FACTS)**	Understand importance, configuration & types of HVDC transmission.
			Understand benefits, roles & realities of types of FACTs controllers.
			Analyze the reactive power control and VAR sources.
			Analyze the operation of variable impedance type series compensator.
			Understand types of STATCOM and working of UPFC.
VI	**BTEEOE 605**	**Group E (Power Plant Engineering)**	To understand the principles of operation of thermal power plant.
			To understand the principles of operation of nuclear and gas power plant
			To understand the principles of operation of hydro power plant.
			To understand the principles of operation of Renewable energy sources.
			To understand economics of Power generation.
VI	**BTEEL606**	**Switchgear and Protection lab**	Identify and understand the functions of various components of switchgear.
			Analyze and interpret the test results to evaluate the condition of circuit breakers.
			Analyze fault currents and voltages during system faults.
			Analyze the working principles of circuit breakers and relays.
			Calibrate protective relays to ensure accurate and reliable operation.
VI	**BTEEL607**	**Electrical Machine Design Lab**	Illustrate electrical symbol & electrical installation procedure
			Design of DC shunt motor starter & Start Delta Starter
			Design of AC DC winding
			Design of transformer
VI	**BTEEL608**	**Control System Engineering Lab**	To understand and use various components of Analog Computer System.
			To understand concepts of MATLAB programing and simulation tools.
			To analyze Control System using MATLAB programming commands.
			To simulate nonlinear control systems using MATLAB simulation tool.
			To obtain solutions of state space equations using MATLAB
VI	**BTEEM 609**	**Seminar**	Updates the student with the latest progress and issues in a particular field.
			Facilitates to search new ideas and innovations.
			Develops the oral communication skills as well as confidence for self-education.
			To develop ability of lifelong learning.