



Course Outcome of IVth- sem of Electrical engineering

SEMISTER:- IVTH SEM (IIND YR)

Course Title : Electrical Machine – I(EM-I)

Course Code : 4EE209PC

CO1	Explain the Construction, working operation, of DC Machines
CO2	Illustrate the different Characteristics, types, their Application and Parallel Operation of DC Generator.
CO3	Demonstrate the various types of DC motor, characteristics, starting method, testing method, speed control method and braking operation on DC motors.
CO4	Explain the Construction, working, types of Single-Phase Transformer and testing of Single-phase transformer.
CO5	Explain the Construction, working, different connections, applications and testing of three phase transformers.

Course Title : Control System(CS)

Course Code : 4EE210PC

CO1	Demonstrate the fundamental concepts of automatic Control and mathematical modeling of the Systems
CO2	Analyze the transfer functions, Signal flow graphs and feedback system for stability and noise reduction.
CO3	Examine the functionality and applications of various control system components like motors and encoders.
CO4	Analyze time response characteristics of first and second order system with error analysis.
CO5	Apply stability criteria using Routh-Hurwitz and frequency response methods.
CO6	Assess system stability through Bode plots, Nyquist plots and gain/phase margin analysis.

Course Title : Electromagnetic Fields(EMF)

Course Code : 4EE211PC

CO1	Demonstrate the basic mathematical concepts related to electromagnetic vector fields.
CO2	Apply the principles of electrostatics to the solutions of problems relating to electric fields
CO3	Apply the principles of magneto statics to the solutions of problems relating to magnetic field.
CO4	Apply Maxwell's equation in different forms (differential and integral) to diverse engineering problems.

Course Title : Electrical Measurements (EM)

Course Code : 4EE214MD

CO1	Classify the various measuring instruments like PMMC, MI, Electrodynamic type.
CO2	Explain the measurement of power and energy by wattmeter and energy meter.
CO3	Analyze various methods for measurement of resistance, inductance, and capacitance using AC/DC bridges.

Course Title : ELECTRICAL MACHINES

Course Code : 4EE216OE2

CO1	Demonstrate their knowledge of construction, working, types, characteristics, starters, and speed control method of DC motor.
CO2	Describe the construction, working operation, performance characteristics, starters, speed control & application of three phase Induction Motor.
CO3	Explain the construction, working operation & performance characteristics of single phase Induction Motor and special motors like universal motor, BLDC Motor.



Course Title : Electrical Drives(ED)

Course Code : 4EE216OE1

CO1	Explain the basic of electrical drives and Power Electronics devices
CO2	Demonstrate various modern speed control techniques of DC drives
CO3	Demonstrate various modern speed control techniques of AC drives

Course Title : Engineering Economics

Course Code : 4EE217EM

CO1	Apply the concepts economics to assess demand and, including elasticity and laws of returns.
CO2	Demonstrate the understanding of cost and revenue structures, market types and inflationary trends, and banking principles
CO3	Make use of the principles of time value of money, economic equivalence, and depreciation to evaluate engineering projects through various methods.