LORDS INSTITUTE OF ENGINEERING & TECHNOLOGY

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DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
COURSE OUTCOMES (CO)
II-I SEMESTER

Course Name: Mathematics - IV (C113BD)

Items	Course Outcomes
C113BD.1	Analyze the complex functions with reference to their analyticity, integration using Cauchy's integral theorem
C113BD.2	Find the Taylor's and Laurent's series expansion of complex functions
C113BD.3	Evaluating system of the bilinear transformation
C113BD.4	Express any periodic function in term of sines and cosines
C113BD.5	Express a non-periodic function as integral representation
C113BD.6	Analyze one dimensional wave and heat equation

Course Name: Network Theory (C113BK)

Items	Course Outcomes
C113BK.1	Use network techniques, like node analysis and loop analysis, to write equations for large linear circuits.
C113BK.2	Apply Thevenin & Norton theorems to analyze and design for maximum power transfer
C113BK.3	Apply the concept of linearity and the associated technique of superposition to circuits and networks.
C113BK.4	Apply phasor analysis to AC circuits in sinusoidal steady state.
C113BK.5	Analyze the frequency response of circuits containing inductors and capacitors
C113BK.6	Analyze transient response of I and II order circuits & circuits using graph theory

Course Name: Electronic Circuits (C113AQ)

Items	Course Outcomes
C113AQ.1	Student get idea on Various electronics circuits like oscillators
C113AQ.2	Student able to describe the Multi-vibrations, freq. response analysis clippers and clampers
C113AQ.3	Students will able to describe the Switching characteristics of semiconductor devices, concept of wave-shaping
C113AQ.4	Student can apply sufficient analysis for solving real world problems.
C113AQ.5	Student get idea on Various types of amplifiers
C113AQ.6	Student able to understand the concept of characteristics of switching devices

Course Name: Electromagnetic Fields (C133AP)

Items	Course Outcomes
C133AP.1	Should be able to specify the "constitutive relationships" for fields and understand why they are required.
C133AP.2	Have an ability to determine and describe static and dynamic electric and magnetic fields for technologically important structures: the coil, charge distributions, the dipole, the coaxial cable, dielectric and conducting spheres immersed in electric fields.

C133AP.3	Knowledge of, physical interpretation, and ability to apply Maxwell's equations to determine field waves, potential waves, energy and charge conservation conditions. Evaluate
C133AP.4	Experimental measurement of voltages induced by time varying magnetic flux. Flux determination.
C133AP.5	A knowledge of and experimental measurement of the influence of boundaries on waves. Thus, knowledge of and the application of boundary conditions for fields, Brewster's angle to eliminate reflections and polarize radiation, total reflection from a boundary, evanescent fields, and some knowledge of their application to modern optics
C133AP.6	Basic concept of the guiding of electromagnetic waves by constructive multiple reflections from conductors and dielectrics.

Course Name: Electrical Machines -I (C133BM)

Items	Course Outcomes
C133BM.1	Student get idea on electromechanical energy conversion
C133BM.2	Students should analyze the operation & characteristics of speed control methods.
C133BM.3	Calculate losses, efficiency, voltage reg. and other parameters of different machines.
C133BM.4	Student able to apply different operating conditions where one type of machine is replaced by other to get higher efficiency.
C133BM.5	Students can able to apply the above conceptual things to real-world electrical and electronics problems and applications.
C133BM.6	Testing of different types of DC Generators and DC motors

Course Name: Electrical Machines Lab-I (C13309)

Items	Course Outcomes
C13309.1	Students will able to perform experiments on DC Machines
C13309.2	Analysis and performance aspects of dc machines has been improved
C13309.3	Students will able to evaluate, from experimental data, the operating characteristics of DC Machines
C13309.4	Practical analysis through viva voce examination conducted for students.
C13309.5	Students will able to perform experiments on motor generator set.
C13309.6	.Students will able to perform experiments on compound motors

Course Name: Network Theory Lab (C13327)

Items	Course Outcomes
C13327.1	Students will able to perform experimental verification of Thevenin and Norton equivalent circuits and the principle of superposition
C13327.2	Students will able to measure the sine wave parameters, such as peak value, rms value, frequency, period and phase angle and dc offset
C13327.3	Students will able to analyze simulation of DC circuits
C13327.4	Students will able to use PSPICE simulation of DC transient response, Mesh Analysis and Nodal Analysis
C13327.5	Students will able to perform experiments on two port networks
C13327.6	Students will able to perform experiments on RLC series and parallel circuits.

Course Name: Electronic Devices and Circuits Lab. (C13310)

Items	Course Outcomes
C13310.1	Students can able to operate the laboratory equipments
C13310.2	Students will design and analyze the simple electronic circuits

C13310.3	Students will design the rectifier circuits and single stage BJT or MOSFET amplifier circuits
C13310.4	Students will design and analyze the simple amplifier circuits
C13310.5	Students will design the rectifier ckts and single stage MOSFET amplifier circuits
C13310.6	Student will design and analyze the clippers & clamper circuits

COURSE OUTCOMES (CO)
III -I SEMESTER

Course Name: Renewable Energy Sources (C125AD)

Items	Course Outcomes
C125AD.1	learn and justify the Energy Scenario of Nation
C125AD.2	understand the Impact of renewable energy generation on environment, Kyoto Protocol and develop themselves to play the role of ideal electrical engineer
C125AD.3	learn the strategy for meeting the future energy requirements in Global and National scenarios, prospects of renewable energy sources and apply the knowledge to plan for future
C125AD.4	Learn the basic concept of harnessing different renewable sources of energy like Solar, Wind, Biomass, Geothermal Energy etc. and Biomass in perspective.
C125AD.5	formulate the Mathematical equation for designing plants for conversion of energy into electrical form based on Solar, Ocean, Fuel Cell, Magneto Hydrodynamic generation etc
C125AD.6	Perform different Hands on Experiment on Solar Energy and set up new laboratory experiments for benefit of the students.

Course Name: Fundamentals of Management (C125AD)

Items	Course Outcomes
C125AD.1	study the functions of management, objectives, goals, mission and vision on modeling
C125AD.2	Organization and different types of organization.
C125AD.3	To describe Plant layouts, plant location, productivity, and types
C125AD.4	To write Work study, work measurement, methods of work study
C125AD.5	Describe the Statistical control and different types of control charts.

Course Name: Power System-II (C125AH)

Items	Course Outcomes
C125AH.1	Brief about resistance, inductance and capacitance of transmission line conductors
C125AH.2	Students Can study the Performance of short, medium and long transmission lines.
C125AH.3	Calculate Sag and tension of overhead lines, Underground cable basics
C125AH.4	Study the Concepts of skin, proximity effect, corona and Ferranti effect.
C125AH.5	Optimal economical operation of power systems
C125AH.6	Cost evaluation of power systems

Course Name: Electrical Measurements and Instrumentation (C125EF)

Items	Course Outcomes
C125EF.1	To use the techniques and skills for electrical projects.
C125EF.2	Measurement of R,L,C ,Voltage, Current, Power factor , Power, Energy
C125EF.3	Ability to balance Bridges to find unknown values.
C125EF.4	Ability to measure frequency, phase with Oscilloscope.
C125EF.5	Ability to use Digital voltmeters.

C125EF.6	Ability to measure strain, displacement, And Velocity, temp., Pressure, Vacuum, and Flow.

Course Name: Microprocessors and Microcontrollers (C125AF)

Items	Course Outcomes
C125AF.1	The Students gained subject of microprocessors and controllers with the basics of CSO,LDICA and STLD
C125AF.2	Can implement hardware interfacing techniques has been improved
C125AF.3	Simple programs involving logical branch & cell instruction
C125AF.4	Study Serial communication standards, serial data transfer schemes
C125AF.5	Overview of 8051 micro controller, Architecture.
C125AF.6	Concept of microcontroller architecture and it interfacing with various I/O devices

Course Name: Electrical Simulation Lab(C125AG)

Items	Course Outcomes
C125AG.1	Analyze signal generation in different systems.
C125AG.2	Analyze network by various techniques.
C125AG.3	Analyze circuit responses.
C125AG.4	Analyze bridge rectifiers.
C125AG.5	design an electrical component or system to meet desired needs

Course Name: Electrical Measurements and Instrumentation Lab. (C12502)

Items	Course Outcomes
C12502.1	Acquire hand on experience about different measurement devices and its working principles
C12502.2	Acquire knowledge of dealing with magnetic circuit and measurement of its parameters like determination of B-H curve μr -H curve and μr - B curve using standard solenoid, search coil and Hibbert's magnetic standard.
C12502.3	Acquire knowledge of principle of calibration of a measuring instrument and plotting of calibration curves.
C12502.4	Acquire hand on experience and knowledge on working of ammeter, voltmeter, wattmeter, Kelvin's double bridge and wheat stone' s bridge, AC bridges,
C12502.5	Acquire hand-on experience on measurement of parameters and verification of laws of illumination.
C12502.6	Acquire hand on experience about different measurement devices and its working principles

Course Name: Electrical Measurements and Instrumentation Lab. (C12502)

Course Name: Switch Gear and Protection (C127HX)

Items	Course Outcomes
C127HX.1	Analyze elementary principles of circuit breakers and ARC interruptions
C127HX.2	Detailed study about types of circuit breakers
C127HX.3	Concepts of electromagnetic and static relay
C127HX.4	Concepts of Neutral grounding and protection against over voltages.
C127HX.5	Analysis of generators and transformers operation

C127HX.6	Study the generation of over voltages in power systems & protection against the lightning over voltage

Course Name: Power System Operation and Control (C127GQ)

Items	Course Outcomes
C127GQ.1	To study detailed features of optimum generation allocation including the effect of transmission power.
C127GQ.2	To design the modeling of turbine generator and automatic controller.
C127GQ.3	Analyze the concepts of reactive power control and reactive power compensation in transmission system.
C127GQ.4	To study the advantages and disadvantages of different types compensating equipment for transmission system
C127GQ.5	To study the advantages and disadvantages of different types compensating equipment for transmission system
C127GQ.6	Concept of two area frequency control system

Course Name: Electrical Distribution Systems (C127CT)

Items	Course Outcomes
C127CT.1	concept of electrical distribution system
C127CT.2	concept of various electrical loads
C127CT.3	concept of distribution feeders
C127CT.4	concept of voltage drop and power loss
C127CT.5	types of various protective devices
C127CT.6	concept of voltage control and power factor improvement

Course Name: Utilization of Electrical Engineering (C127JJ)

Items	Course Outcomes
C127JJ.1	Types of electric drives and its starting and running characteristics
C127JJ.2	Concept of heating and welding
C127JJ.3	Concept of Illumination
C127JJ.4	Basic principles of light control
C127JJ.5	Concept of electric traction
C127JJ.6	Calculation of attractive efforts and specific energy

Course Name: Digital Signal Processing (C127CK)

Items	Course Outcomes
C127CK.1	Able to calculate Z-transforms for discrete time signals and system functions
C127CK.2	Ability to calculate discrete time domain and frequency domain of signals using discrete Fourier series and Fourier transform
C127CK.3	Ability to develop Fast Fourier Transform (FFT) algorithms for faster realization of signals and systems.
C127CK.4	Able to design Digital IIR filters from Analog filters using various techniques
C127CK.5	Able to design Digital FIR filters using window techniques, Fourier methods and frequency sampling technique.
C127CK.6	Ability to demonstrate the impacts of finite word length effects in filter design.