

COURSECODE/ SUBJECT CODE & NAME : C201 / MA8353 & Transforms and Partial Differential Equations  
 YEAR / SEM : II / III

Course Outcomes (COs)

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C201.1	Understand how to solve the given standard partial differential equations.
2	C201.2	Solve differential equations using Fourier series analysis which plays a vital role in engineering applications
3	C201.3	Appreciate the physical significance of Fourier series techniques in solving one and two dimensional heat flow problems and one dimensional wave equations.
4	C201.4	Understand the mathematical principles on transforms and partial differential equations would provide them the ability to formulate and solve some of the physical problems of engineering.
5	C201.5	Use the effective mathematical tools for the solutions of partial differential equations by using Z transform techniques for discrete time systems.

COURSECODE/ SUBJECT CODE & NAME : C202/EE8351-DIGITAL LOGIC CIRCUITS  
 YEAR / SEM : II / III

. Course Outcomes (COs)

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C202.1	Understand basic concept of various number systems and digital logic families.
2	C202.2	Design and realize combinational hardware circuits.
3	C202.3	Analyze and design synchronous sequential hardware circuits.
4	C202.4	Analyze and design asynchronous sequential hardware circuits.
5	C202.5	Design digital circuits using VHDL.

COURSECODE/ SUBJECT CODE & NAME : C203/EE8391 & ELECTROMAGNETIC THEORY

YEAR / SEM : II / III

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C203.1	Introducing the basic mathematical concepts related to electromagnetic vector fields.
2	C203.2	Studying the concepts of electrostatics, electrical potential, energy density and their applications.
3	C203.3	Impart knowledge on the concepts of magneto statics, magnetic flux density, scalar and vector potential and its applications.
4	C203.4	Impart knowledge on the concepts of Faraday's law, induced emf and Maxwell's equations
5	C203.5	Understanding the concepts of electromagnetic waves and Pointing vector.

COURSECODE/ SUBJECT CODE & NAME : C204/ EE8301& ELECTRICAL MACHINES - I

YEAR / SEM : II / III

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C204.1	Understanding the concepts of magnetic-circuit analysis and introduce magnetic materials
2	C204.2	Familiarizing the constructional details, the principle of operation, prediction of performance, the methods of testing the transformers and three phase transformer connections
3	C204.3	Studying the working principles of electrical machines using the concepts of electromechanical energy conversion principles and derive expressions for generated voltage and torque developed in all Electrical Machines
4	C204.4	Studying and understanding the working principles of DC machines as Generator types, determination of their no-load/load characteristics, starting and methods of speed control of motors.
5	C204.5	To estimate the various losses taking place in D.C. Motor and to study the different testing methods to arrive at their performance.

COURSECODE/ SUBJECT CODE & NAME : C 205/ EC8353 & ELECTRON DEVICES AND CIRCUITS  
YEAR / SEM : II / III

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C205.1	Understand and explain basic electronic devices.
2	C205.2	Analyze and design transistors.
3	C205.3	Analyze and design amplifiers.
4	C205.4	Analyze and design multistage and differential amplifiers.
5	C205.5	Analyze and design oscillators.

COURSECODE/ SUBJECT CODE & NAME : C206/ ME8792 & Power Plant Engineering  
YEAR / SEM : II / III

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C206.1	Explain the various subsystems of coal power plant and calculate the efficiency of Rankine cycle.
2	C206.2	Discuss the merits & demerits of combined power plants and calculate the efficiency of gas power
3	C206.3	Differentiate pressurized water reactor & boiling water reactor and explain the various waste disposal system in nuclear power plant.
4	C206.4	Explain the working principle of various renewable energy power plants.
5	C206.5	Explain the different tariff procedures for energy consumption and differentiate fixed and operating costs involved in power production.

COURSECODE/ SUBJECT CODE & NAME : C207/ EC8311& ELECTRONICS LABORATORY

YEAR / SEM : II / III

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C207.1	Study experimentally the characteristics of semiconductor diodes.
2	C207.2	Verify practically the response of various special purpose electron devices.
3	C207.3	Design and test oscillators.
4	C207.4	Realize experimentally multi-vibrators and passive filters.
5	C207.5	Realize experimentally the characteristics of transistors.

COURSECODE/ SUBJECT CODE & NAME : C208/ EE 8311 -ELECTRICAL MACHINES LABORATORY - I

YEAR / SEM : II / III

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C208.1	Gaining hands on knowledge in the operation of D.C Machines and Transformers
2	C208.2	Ability to model and analyze electrical apparatus and their application to power system
3	C208.3	Ability to develop applications in related to DC motor
4	C208.4	Ability to develop applications in related to Transformers
5	C208.5	Ability to design and analyze DC Motor and Transformer to various Industries application

COURSE CODE /SUBJECT CODE & NAME : C209/MA8491& Numerical Methods  
YEAR / SEM : II / IV

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C209.1	Understand the basic concepts and techniques of solving algebraic and transcendental equations.
2	C209.2	Apply the numerical techniques of interpolation and error approximations in various intervals in real life situations.
3	C209.3	Apply the numerical techniques of differentiation and integration for engineering problems.
4	C209.4	Understand the knowledge of various techniques and methods for solving first and second order ordinary differential equations.
5	C209.5	Solve the partial and ordinary differential equations with initial and boundary conditions by using certain techniques with engineering applications.

COURSE CODE /SUBJECT CODE & NAME : C210/EE8401& Electrical Machines - II  
YEAR / SEM : II / IV

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C210.1	Understand and analyze the working of salient and non – salient type synchronous generators.
2	C210.2	Understand and explain the principle of operation and performance of synchronous motor
3	C210.3	Understand and explain the principle of operation and performance of Induction Machine,
4	C210.4	Understand and explain the various starting and speed control of three-phase induction motors.
5	C210.5	Study the working ,Construction, principle of operation and performance of single phase Induction motors and special machines.

COURSE CODE /SUBJECT CODE & NAME : C211/ EE8402 &Transmission and Distribution  
YEAR / SEM : II / IV

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C211.1	Understanding the concept of structure of electric power system and develop expressions for the computation of transmission line parameters.
2	C211.2	Understanding the concept of equivalent circuits for the transmission lines based on distance and determine voltage regulation and efficiency
3	C211.3	Understanding the concept of mechanical design of transmission lines and analyze the voltage distribution in insulator strings to improve the efficiency.
4	C211.4	Understanding the concept of types, construction of cables and methods to improve the efficiency.
5	C211.5	Understanding the concept of distribution systems, types of substations, methods of grounding, EHVAC, HVDC and FACTS.

COURSE CODE/SUBJECT CODE & NAME : C212/EE8403 Measurements and Instrumentation  
YEAR / SEM : II / IV

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C212.1	Ability to understand the concept of instrument functions, instrument characteristics, Error calculation, calibration process and measuring standards.
2	C212.2	Ability to measure the electrical power, energy, frequency and determine the phase sequence with appropriate instrument.
3	C212.3	Ability to select appropriate signal conditioning circuits, shielding and grounding technique for relevant parameter measurement.
4	C212.4	Ability to employ CRO and different types of recorders for respective indicating and recording function.
5	C212.5	Ability to monitor the instrumentation system with various type of transducers and data acquisition systems.

COURSE CODE/SUBJECT CODE & NAME : C213/EE8451 Linear Integrated Circuits and Applications  
 YEAR / SEM : II / IV

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C213.1	Develop the skills in IC packaging and fabrication.
2	C213.2	Learn and analyze the characteristics of operational amplifier.
3	C213.3	Understand and analyze the applications of operational amplifier.
4	C213.4	Impart the knowledge about special IC'S.
5	C213.5	Understand and analyze the applications of IC.

COURSE CODE /SUBJECT CODE & NAME : C214/IC8451& Control Systems  
 YEAR / SEM : II / IV

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C214.1	Understanding the use of transfer function models for analysis physical systems and introduce the control system components.
2	C214.2	Providing adequate knowledge in the time response of systems and steady state error analysis.
3	C214.3	Accord basic knowledge in obtaining the open loop and closed-loop frequency responses of Systems.
4	C214.4	Introduce stability analysis and design of compensators
5	C214.5	Introduce state variable representation of physical systems and study the effect of state feedback

COURSE CODE /SUBJECT CODE & NAME : C215/ EE8411& Electrical Machines Laboratory - II  
YEAR / SEM : II / IV

**Course Outcomes (COs)**

<b>COURSE CODE</b>	<b>COURSE OUTCOME</b>
C215.1	Expose the students to the operation of three phase alternator and give them experimental skill.
C215.2	Understand and explain characteristics Three Phase Synchronous Motor.
C215.3	Understand and explain characteristics Single phase induction motors
C215.4	Understand and explain characteristics Three phase induction motors
C215.5	Understand of Induction motor Starters

COURSE CODE/SUBJECT CODE & NAME : C216/EE8461 Linear and Digital Integrated Circuits Laboratory  
YEAR / SEM : II / IV

**Course Outcomes (COs)**

<b>S.NO.</b>	<b>COURSE CODE</b>	<b>COURSE OUTCOMES (COs)</b>
1	C216.1	Design a combinational hardware circuits using Boolean simplification techniques.
2	C216.2	Design and implement combinational circuits.
3	C216.2	Design and implement sequential circuits.
4	C216.2	Design and Develop applications of Operational amplifier.
5	C216.2	Design and application voltage controlled oscillator and phase locked loop circuits



COURSE CODE/SUBJECT CODE & NAME : C217/ EE8412 & Technical Seminar  
YEAR / SEM : II / IV

**Course Outcomes (COs)**

<b>S.NO.</b>	<b>COURSE CODE</b>	<b>COURSE OUTCOMES (COs)</b>
1	C217.1	Ability to present technical seminar.
2	C217.2	Ability to review, prepare and present technological developments
3	C217.2	Ability to face the placement interviews
4	C217.2	Encourage the students to attend various technical competitions.
5	C217.2	Students can ability to Prepare and present technical reports.