DRONACHARYA
College of Engineering
Khentawas, Farrukh Nagar, Gurugram, Haryana
Approved by: All India Council for Technical Education (AICTE), New Delhi
Affiliated to: Gurugram University, Gurugram

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACADEMIC YEAR 2023-24

SEMESTER IV

TRANSMISSION AND DISTRIBUTION

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand the basic laws of Transmission and Distribution.
(CO2)	Knowledge about the Structure and present-Day Scenario of a power system.
(CO3)	Analyses of transmission and distribution line parameters.
(CO4)	Uderstand mechanical design of transmission line with skin effect and proximity effect.
(CO5)	Understand the various cables and insulators gradings as well as ratings.
(CO6)	To Know the performance of transmission line.

ELECTRICAL MACHINE -II

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand the concepts of rotating magnetic fields.
(CO2)	Overview of construction of ac machines.
(CO3)	Understand the operation of ac machines.
(CO4)	Analyse performance characteristics of ac machines.
(CO5)	Impart knowledge on speed and torque characteristics of ac machines.
(CO6)	Prepare the students to have a basic knowledge about motoring , generating and braking mode of ac machines.

POWER ELECTRONICS

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand the differences between signal level and power level devices.
(CO2)	Understand working of AC regulators.
(CO3)	Analyse controlled rectifier circuits.
(CO4)	Analyse the operation of DC-DC choppers.
(CO5)	Analyse the operation of voltage source inverters.
(CO6)	Analyse cycloconverters.

ELECTRONICS MEASUREMENT AND INSTRUMENTATION

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Analyze the performance characteristics of each instrument.
(CO2)	Illustrate basic meters such as voltmeters and ammeters.
(CO3)	Explain about different types of signal analyzers.
(CO4)	Explain the basic features of oscilloscope and different types of oscilloscopes.
(CO5)	Identify the various parameters that are measurable in electronic instrumentation.
(CO6)	Employ appropriate instruments to measure given sets of parameters.

ELECTRICAL ENGINEERING MATERIALS

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Learn the basics of metal.
(CO2)	Learn the basics of conductivity.
(CO3)	Realize the dielectric properties of materials.
(CO4)	Explain the importance of magnetic properties.
(CO5)	Explain the behavior of conductivity of metals and
(CO6)	Classify semiconductor material.

PROBABILITY THEROY AND STOCHASTIC PROCESSES

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Develop understanding of basics of probability theory.
(CO2)	Understand random variables.
(CO3)	Identify different distribution functions and their relevance.
(CO4)	Apply the concepts of probability theory to different problems.
(CO5)	Extract parameters of a stochastic process and use them for process characterization.
(CO6)	Apply regression analysis.

TRANSMISSION AND DISTRIBUTION LABORATORY

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand the basic laws of Transmission and Distribution.
(CO2)	Knowledge about the Structure and present-Day Scenario of a power system.
(CO3)	Analyses of transmission and distribution line parameters.
(CO4)	Uderstand mechanical design of transmission line with skin effect and proximity effect.
(CO5)	Understand the various cables and insulators gradings as well as ratings.
(CO6)	To Know the performance of transmission line.

ELECTRICAL MACHINE –II LABORATORY

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand the concepts of rotating magnetic fields.
(CO2)	Overview of construction of ac machines.
(CO3)	Understand the operation of ac machines.
(CO4)	Analyse performance characteristics of ac machines.
(CO5)	Impart knowledge on speed and torque characteristics of ac machines.

POWER ELECTRONICS LABORATORY

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand the differences between signal level and power level devices.
(CO2)	Understand working of AC regulators.
(CO3)	Analyse controlled rectifier circuits.
(CO4)	Analyse the operation of DC-DC choppers.
(CO5)	Analyse the operation of voltage source inverters.
(CO6)	Analyse cycloconverters.

ELECTRONICS MEASUREMENT AND INSTRUMENTATION LABORATORY

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Analyze the performance characteristics of each instrument.
(CO2)	Illustrate basic meters such as voltmeters and ammeters.
(CO3)	Explain about different types of signal analyzers.
(CO4)	Explain the basic features of oscilloscope and different types of oscilloscopes.
(CO5)	Identify the various parameters that are measurable in electronic instrumentation.
(CO6)	Employ appropriate instruments to measure given sets of parameters.

SCIENTIFIC & TECHNICAL WRITING SKILLS

Course Outcome (CO)	Details of Course Outcomes
Activities on Writing Skills	Structure and presentation of different types of writing - letter writing/Resume writing/ e-correspondence/ Technical report writing/ Portfolio writing - planning for writing -improving one's writing.
Activities on Presentation Skills	Oral presentations (individual and group) through JAMsessions/seminars/PPTs and written presentations through posters/ projects/ reports/ e-mails/ assignmentsetc.
Activities on Group Discussion and Interview Skills	Dynamics of group discussion, intervention,summarizing, modulation of voice, body language, relevance, fluency and organization of ideas andrubrics for evaluation- Concept and process, pre-interview planning, opening strategies, answeringstrategies, interview through tele-conference & video-conferencing and Mock Interviews.