

Galgotias College of Engineering and Technology Department of Electrical Engineering	
List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: Universal Human Values	
Course Code:KVE301	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Understand the need, concept and content of value-education in individual's life and modifies their aspirations for happiness & prosperity.
CO2	Comprehend the term self-exploration and its application for self-evaluation and development.
CO3	Reconstruct the concepts about different values & discriminate between them.
CO4	Analyze the concept of co-existence & evaluate the program to ensure self regulation.
CO5	Identify the holistic perception of harmony at level of self, family, society, nature and explain it by various examples.
CO6	Apply professional ethics in their future profession & contribute for making a value based society.

Galgotias College of Engineering and Technology Department of Electrical Engineering	
List of Courses with Course Outcomes Year of Study: 3	
Course Name: Electromagnetic Field Theory	
Course Code: KEE301	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Understand the different coordinate systems and their applications in different EM Fields
CO2	Explain the concept of static electric field and different boundary conditions.
CO3	Describe the concept of static magnetic field.
CO4	Discuss the forces due to magnetic field and magnetic boundary conditions.
CO5	Application of Maxwell's equation, wave propagation and Transmission line.

Galgotias College of Engineering and Technology	
Department of Electrical Engineering	
List of Courses with Course Outcomes	
Year of Study: 2020-21	
Course Name: Electrical Measurement & Instrumentation	
Course Code:KEE302	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Measure various electrical parameters with accuracy, precision and able to get relative error if any.
CO2	Design AC and DC bridges for relevant parameter measurement
CO3	Study Instrument transformers with their design considerations and testing
CO4	Design Signal Generator, frequency counter, CRO and digital IC counter for appropriate measurement.
CO5	Application of appropriate passive or active transducers and data acquisition systems for measurement of physical phenomenon

Galgotias College of Engineering and Technology	
Department of Electrical Engineering	
List of Courses with Course Outcomes	
Year of Study: 2020-21	
Course Name: Basic Signals & Systems	
Course Code:KEE303	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Represent the various types of signals & systems and perform mathematical operations on them.
CO2	Analyze the response of LTI system using Fourier Series and Fourier transform.
CO3	Analyze the properties of continuous time signals and system using Laplace transform
CO4	Apply the concepts of state- space models to SISO & MIMO systems.
CO5	Implement the concepts of Z transform to solve complex engineering problems using difference equations.

Galgotias College of Engineering and Technology Department of Electrical Engineering List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: Electrical Workshop Course Code:KEE353	
<i>Course Outcomes</i>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Understand various types of wiring systems, wiring tools, lighting & wiring accessories, wiring estimation & costing, etc.
CO2	Understand rectifier in electronic systems.
CO3	Understand all the fundamental concepts involving electrical and electronics Engineering.

Galgotias College of Engineering and Technology Department of Electrical Engineering List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: Electrical Measurements & Instrumentation Lab Course Code:KEE352	
<i>Course Outcomes</i>	
Course Outcome	On completion of this course, the student will be able to:
CO1	To study the importance of calibration of measuring instruments.
CO2	To describe the construction and working of different measuring instruments.
CO3	To compute the various physical parameters using different sensors.

Galgotias College of Engineering and Technology	
Department of Electrical Engineering	
List of Courses with Course Outcomes	
Year of Study: 2020-21	
Course Name: Electronics Engineering	
Course Code: KOE038	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Understand the concept of PN junction and special purpose diodes.
CO2	Study the application of conventional diode and semiconductor diode
CO3	Analyse the I-V characteristics of BJT and FET.
CO4	Analyze the of Op-Amp, amplifiers, integrator, and differentiator
CO5	Understand the concept of digital storage oscilloscope and compare of DSO with analog oscilloscope

Galgotias College of Engineering and Technology	
Department of Electrical Engineering	
List of Courses with Course Outcomes	
Year of Study: 2020-21	
Course Name: ANALOG ELECTRONICS LAB	
Course Code:KEE351	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Familiarize with the analogue electronic components.
CO2	Understand the difference between voltage and current controlled devices.
CO3	Understand the importance of the characteristics of triggering.

Galgotias College of Engineering and Technology Department of Electrical Engineering	
List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: CONSTITUTION OF INDIA, LAW AND ENGINEERING	
Course Code:KNC501	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Identify and explore the basic features and modalities about Indian constitution.
CO2	Differentiate and relate the functioning of Indian parliamentary system at the center and state level.
CO3	Differentiate different aspects of Indian Legal System and its related bodies.
CO4	Discover and apply different laws and regulations related to engineering practices
CO5	Correlate role of engineers with different organizations and governance models

Galgotias College of Engineering and Technology	
Department of Electrical Engineering	
List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: Control System	
Course Code: KEE-502	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Mathematical modelling of physical system to find transfer function
CO2	Analysis of control system using standard test signal
CO3	Design of controller & compensators
CO4	Study of different component of control system
CO5	Analysis of stability of control system in time & frequency domain

Galgotias College of Engineering and Technology Department of Electrical Engineering List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: Power System-I	Course Code: KEE-501
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Apply the knowledge of various kinds of Electrical components for Generation, Transmission and Distribution in a power system.
CO2	Estimate the parameters of transmission line and examine their performance characteristics.
CO3	Solve practical problems of Corona and its interference with communication lines.
CO4	Design the overhead transmission line, insulators and cables.
CO5	Apply the various methods of grounding.

Galgotias College of Engineering and Technology Department of Electrical Engineering List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: Control System Lab	Course Code:KEE-552
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Analyze stability of various control system using time domain stability analysis methods
CO2	Design and simulate various control systems in time /frequency domain using MATLAB

Galgotias College of Engineering and Technology Department of Electrical Engineering List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: Electrrical Machine -II	
Course Code: KEE-503	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Understand the basic concept of synchronous generator
CO2	Analyse the basic principle and working of synchronous motor
CO3	Evalute the basic concept of three phase induction motor
CO4	Study the working of high torque three phase induction motor
CO5	Explain the basic concept of single phase induction motor

Galgotias College of Engineering and Technology Department of Electrical Engineering List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: Electrical Machine -II Lab	
Course Code:KEE-553	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Conduct various tests on alternators and obtain their performance indices using standard analytical , graphical and software methods..
CO2	analyse the performance of induction machines using standard analytical ,graphical and software methods.

Galgotias College of Engineering and Technology Department of Electrical Engineering	
List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: NEURAL NETWORKS AND FUZZY SYSTEM	
Course Code: KEE 056	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Apply the concepts of feed forward neural networks and their learning techniques.
CO2	Comprehend the architecture, develop algorithms and apply the concepts of back propagation networks.
CO3	Differentiate between the fuzzy and the crisp sets, apply the concepts of fuzziness and fuzzy set theory.
CO4	Select the membership functions, write rules and develop the fuzzy controller for Industrial applications.
CO5	Demonstrate the working of fuzzy neural networks and identify its applications.
Galgotias College of Engineering and Technology Department of Electrical Engineering	
List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: INDUSTRIAL AUTOMATION AND CONTROL	
Course Code: KEE 053	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Understand the concept of automation, its terminology and basic communication protocol.
CO2	Apply Relay logic for automation
CO3	Learn about PLC, its operation and application in automation.
CO4	Analyze the industrial sensors, its terminology and how one can interface with PLC.
CO5	Demonstrate Pneumatic system and its application in industry.

Galgotias College of Engineering and Technology Department of Electrical Engineering	
List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: Utilization of Electrical Energy and Traction	
Course Code: REE-071	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Understand the processes of electrical heating and their application
CO2	Explain the working of various Electric Welding and Electrolyte processes along with their applications
CO3	Understand the designing of indoor and outdoor lighting system along with the working of the refrigeration and air-conditioning systems
CO4	Describe the mechanics of train movement and the different types of electric traction
CO5	Comprehend the use of power electronics control in ac and dc traction drives.

Galgotias College of Engineering and Technology Department of Electrical Engineering	
List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: Project-1	
Course Code: REE-754	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Identify the particular problem in the field and demonstrate independent learning.
CO2	Plan, design and analyze the particular problem as project.
CO3	Demonstrate the usefulness of project in society and understanding of professional ethics and participate in a class or project team

Galgotias College of Engineering and Technology Department of Electrical Engineering	
List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: Power System Lab	
Course Code: REE-752	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	To study and analyze the transient and subtransient reactance of alternator.
CO2	Analyze and calculate the different fault of power system.
CO3	Study and undersatnd the function of different types of relayof power system network.

Galgotias College of Engineering and Technology Department of Electrical Engineering	
List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: Electric Drives	
Course Code: REE-701	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Understand Fundamentals of Electric Drives and its parts.
CO2	Explain Dynamics of motor-load combination of Electric Drive .
CO3	Understand Electric Braking of various 3.machines.
CO4	Apply Power Electronics for Control of DC Drives
CO5	Apply Power Electronics for Control of AC Drives

Galgotias College of Engineering and Technology Department of Electrical Engineering List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: Power System Protection	
Course Code: REE-702	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Explain the purposes of protection and zones of protection, in relation to major types of relays and protection principles
CO2	Understand the working of comparators in static relays and their use in the realization of static overcurrent, directional, distance and differential relays
CO3	Comprehend the different schemes used for protection of transmission line
CO4	Understand the various phenomena associated with the formation and extinction of arc in circuit breakers in addition to their ratings and testing methodologies
CO5	Describe the construction, working and capabilities of different type of circuit breaker used in power system protection.
CO6	Explain the fundamental principles associated with the protection of apparatus such as transformer, generator and motor.
Galgotias College of Engineering and Technology Department of Electrical Engineering List of Courses with Course Outcomes Year of Study: 2020-21	
Course Name: Energy Efficiency and Conservation	
Course Code: REE-076	
<u>Course Outcomes</u>	
Course Outcome	On completion of this course, the student will be able to:
CO1	Understand the basic principle of energy conservation in small scale industries, Large scale industries and in power system.
CO2	Understand the energy audit in different field such as Electrical Systems, HVAC, Buildings etc.
CO3	Explain the concept and implementation of demand side management
CO4	Understand the importance of reactive power support in distribution systems
CO5	Analyze the importance of efficiency in motor and lightning system

Galgotias College of Engineering and Technology
Department of Electrical Engineering

List of Courses with Course Outcomes
Year of Study: 2020-21

Course Name: INDUSTRIAL AUTOMATION & PLC LAB

Course Code: REE-751

Course Outcomes

Course Outcome	On completion of this course, the student will be able to:
CO1	Understand the automation of various plants.
CO2	Understand the use of ladder programming for programmable logic controller.