



LORDS INSTITUTE OF ENGINEERING & TECHNOLOGY

Approved by AICTE/Affiliated to OU/Estd.2002.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE OUTCOME

(Academic Year: 2020-21 Even Semester)

IV Semester(OU)

Course Outcomes:**C221** Indian Constitution

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C221.1	Understand the concept of Indian Constitution	TL2
C221.2	Outline the Fundamental Rights and Fundamental Duties	TL2
C221.3	Analyze the Directive Principles of State policy CO4 Analyze the distribution of powers between of Union and states	TL4
C221.4	Able to know the Emergency Provision of Indian Constitution	TL2

Course Outcomes:**C222** Effective Technical Communication in English

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C222.1	Acquire and apply Technical Communication professionally	TL2,TL3
C222.2	Correspond technically through various methods and style of technical writing	TL3,TL4,TL6
C222.3	Gain and apply different technical writing skills of report writing	TL2, TL3
C222.4	Obtain efficient skills in creating and designing technical manuals	TL3,TL6
C222.5	Utilise and obtain various styles of information transfer	TL3, TL4, TL6

Course Outcomes:**C223** Finance and Accounting

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C223.1	To understand the basic concepts of financial accounting, cost accounting and management accounting	TL2
C223.2	To understand Accounting Standards and their Importance in Global Accounting Environment, to prepare, understand, interpret and analyze financial statements	TL3
C223.3	To Understand the procurement of Finance in Financial Markets for Strengthening countries economy	TL2
C223.4	To understand Capital budgeting techniques	TL3
C223.5	To understand the different types of Ratios like Liquidity, Turn over, Profitability, Leverage and Structural Ratios	TL4
C223.6	To Acquire knowledge on Finance and Accounting	TL2

Course Outcomes:**C224** Mathematics – III (Probability & Statistics)

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C224.1	Understand real life and Engineering Problems through mathematics	TL 1,TL 2,TL 4
C224.2	get logical thinking and creativity	TL 3, TL 4
C224.3	obtain the knowledge of Probabilty, Random Variables,distributions and its applications	TL 1 TL 2,TL 4
C224.4	learn the concepts of discrete and continuou distributions	TL 2, TL 3
C224.5	get the knowledge of curve fitting,regression and testing of hypothesis for various parameters	TL 1, TL 3, TL 4
C224.6	Know the Concepts of F-distribution and chi-square distribtion,goodness of fit and test for dependence	TL 4,TL 5

Course Outcomes:**C225** Elements of Mechanical Engineering

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C225.1	Expalining about the working, functions and applications of engines and explaining the different parts of the engines and classifing the different parts and explaining the concepts of Turbines and their applications.	TL1, TL2
C225.2	Analyse the governing equations of heat exchangers, and their applications of heat exchangers and solving the problems	TL3
C225.3	Domenstration of hydraulic turbines and pumps with calculations	TL3
C225.4	classification of power transmission with the mechanisms	TL2
C225.5	Different types of manufacturing processes and advance machining and additive manufacturing processes	TL4, TL6

Course Outcomes:**C226** Electrical Machines – I

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C226.1	Understand the concepts of magnetic circuits	TL2
C226.2	Understand working principle, laws and working of DC machines	TL2
C226.3	Analyze the construction, characteristics and applications of various types of DC generators	TL4
C226.4	Analyze the construction, characteristics and applications of various types of DC motors and testing of DC motors	TL4
C226.5	Understand working principle, laws and working of 1-Phase Transformer, losses, efficiency and various tests on transformers	TL2

Course Outcomes:**C227** Digital Electronics and Logic Design

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C227.1	Examine the structure of number systems and perform the conversion among different number systems	TL1
C227.2	Illustrate reduction of logical expressions using boolean algebra, k-map and tabulation method and implement the functions using logic gates	TL2

C227.3	Realize combinational circuits for given application	TL3
C227.4	Design and analyses synchronous and asynchronous sequential circuits using flipflops	TL5
C227.5	Implement combinational logic 3 circuits using programmable logic devices	TL4

Course Outcomes:**C228** Power Electronics

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C228.1	Understand the characteristics and performance of various power electronic devices.	TL2
C228.2	Analyse single and three phase controlled rectifier circuits.	TL4
C228.3	Understand choppers circuits and AC voltage controllers	TL2
C228.4	Understand the performance of single phase inverter circuits.	TL2
C228.5	Analyse the operation of three phase voltage source inverters.	TL4
C228.6	Analyse single and three phase controlled rectifier circuits.	TL4

Course Outcomes:**C229** Electrical Machines Lab – I

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C229.1	Understand electrical principle, laws, and working of DC machines.	TL2
C229.2	Analyse the construction and characteristics and application of various type of DC generators.	TL4
C229.3	Analyse the construction and characteristics and application of various type of DC motors and testing of motors.	TL4
C229.4	Understand electrical principle, laws, and working of 1 phase transformer and losses and also conduct various test on the transformer	TL2
C229.5	Understand the performance of various DC and AC machines	TL2

Course Outcomes:**C2210** Digital Electronics and Logic Design Lab

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C2210.1	Understand working of logic families and logic gates	TL2
C2210.2	Design and implement Combinational and Sequential logic circuits	TL6
C2210.3	Understand the process of Analog to Digital conversion and Digital to Analog conversion.	TL2
C2210.4	Use PLCs to implement the given logical problem.	TL5
C2210.5	Analysis of synchronous and asynchronous counters.	TL4

COURSE OUTCOME
(Academic Year: 2020-21 Even Semester)
III Year -II Semester(R18)

Course Outcomes:**C321** Fundamentals of Internet of Things

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C321.1	Understand the definition, concepts and significance of the Internet of Things.	TL1,TL2
C321.2	Understand basics of networking concepts and communication protocols in wireless network.	TL1,TL2
C321.3	Understand the basic concepts of programing for Python Language.	TL3,TL4,TL5
C321.4	Understand the basic concepts of interfacing of Raspberry pi.	TL3,TL4,TL5
C321.5	Understand the programing and configuration on Arduino boards for various designs	TL3,TL5
C321.6	Analyze and design IOT applications in different domains.	TL3,TL4,TL6

Course Outcomes:**C322** Wind and Solar Energy systems

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C322.1	Knowledge the energy scenario and the consequent growths of the Power generates renewable energy sources.	TL1
C321.2	Understand the basic physics of wind power generation.	TL2
C322.3	Understand the basics of solar power generation.	TL2
C322.4	Design suitable power controller for wind and solar applications	TL6
C322.5	Analyze the issues involved in the integration of solar and wind energy systems to grid	TL4
C322.6	Understand the solar thermal power generation	TL2

Course Outcomes:**C323** Signals and Systems

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C323.1	Able to Understand mathematical description and representation of continuous and discrete time signals and systems.	TL-1,TL-2
C323.2	Able to derive Fourier series for continuous time signals and can find Fourier transform for different signals.	TL-3, TL-5
C323.3	Able to develop input output relationship for linear shift invariant system and understand the convolution operator for continuous and discrete time system	TL-2,TL-4
C323.4	Classify systems based on their properties and determine the response of LSI system using convolution.	TL-2,TL-4
C323.5	Apply the Laplace transform and Z- transform for analyze of continuous-time and discrete-time signals and systems.	TL-3, TL-5
C323.6	Able to Understand the process of sampling and the effects of under sampling.	TL-1,TL-2

Course Outcomes:**C324** Microprocessors & Microcontrollers

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
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C324.1	Students will be able to learn the internal architecture ,memory organization and can develop assembly language programming of 8086 processors.	T2,T3
C324.2	Students will be able to learn the internal architecture ,memory organization and can develop assembly language programming of 8051 microcontroller.	T2,T3
C324.3	Students will be able to understand the interfacing techniques to 8051 based systems	T2,T3,T4
C324.4	The knowledge of Communication between peripherals and the processors and controllers will be clear	T1,T2
C324.5	Students will be able to learn the internal architecture of ARM Processors and basic concepts of ARM processors	T2,T3
C324.6	Students will be able to learn the internal architecture and instruction set of CORTEX Processors and basic concepts of CORTEX processors	T1,T3

Course Outcomes:C325 Power System Protection

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C325.1	Compare and contrast electromagnetic, static and microprocessor-based relays	TL4
C325.2	Apply technology to protect power system components.	TL4
C325.3	Select relay settings of over current.	TL5
C325.4	Analyze quenching mechanisms used in air, oil and vacuum circuit breakers	TL4, TL5
C325.5	Understand the concept of distance relays.	TL2
C325.6	Understand the protection schemes employed for AC Machines and Bus Zone Protection	TL2

Course Outcomes:C326 Power System Operation and Control

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C326.1	Understand the importance of Load flow studies and approach to poper method for investigating problems in power system operating and planning	TL2
C326.2	Analyze various functions of Energy Management System (EMS) functions and can understand the importance to reduce the operating cost of generation to the minimum	TL4
C326.3	To Understand importance of transient deviations and to restore the balance between load and generation	TL2
C326.4	Analyze whether the machine is can able to meet the demand or not	TL4, TL5
C326.5	Understand the need of computer in power systems	TL2

Course Outcomes:C327 Power System Lab

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C327.1	Perform various load flow techniques.	TL5
C327.2	Analyze the Characteristic of different relays.	TL4
C327.3	To perform fault analysis on Transmission line and Generators.	TL5

C327.4	Understand Different protection methods	TL2,TL3
C327.5	Formation of bus	TL5
C327.6	Analyze the experimental data and draw the conclusions.	TL4

Course Outcomes:**C328** Microprocessors & Microcontrollers Lab

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C328.1	Students will be familiar with the instruction set of 8086 and programming principles	T1,T2
C328.2	Students will be able to learn the basic programming skills	T2,T3
C328.3	student will be able to write simple ALP using different instructions	T2,T4
C328.4	Students can develop the applications like interfacing and the concept of communication.	T3,T5,T6
C328.5	Students can program and interface with the external devices like matrix, converters etc.	T3,T6

Course Outcomes:**C329** Signals and Systems Lab

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C329.1	Able to use MATLAB simulation tool and know its advantages and capable to generate various signals and sequences using MATLAB tool	TL-2,TL-3
C329.2	Able to get knowledge about removal of noise from any signal	TL-2,TL-3
C329.3	Able to get practical knowledge on how to perform different operations on various signals and sequences.	TL-3,TL-5
C329.4	Able to get clear idea about spectrum and converting various time domain signals in to frequency domain	TL-1,TL-6
C329.5	Analyze various signals to avoid aliasing effect while generating various signals of different frequencies	TL-2,TL-4
C329.6	Will get Practical knowledge about generating random noise using Gaussian distribution	TL-3,TL-6 TL5

Course Outcomes:**C3210** Environmental Science

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C3210.1	Understand ecological principles which in turn helps in sustainable development	TL2
C3210.2	Analyze Environmental regulations which in turn helps in development	TL4
C3210.3	Develop technologies on the basis of ecological principles and environmental regulations	TL6
C3210.4	Apply principles and environmental regulations which in turn helps in sustainable development	TL3
C3210.5	Evaluate environmental regulations which in turn helps in sustainable development	TL 5

COURSE OUTCOME
(Academic Year: 2020-21 Even Semester)
IV Year -II Semester (R16)

Course Outcomes: **C421** Electronic Measuring Instruments

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C421.1	Identify the various electronic instruments based on their specifications for carrying out a particular task of measurement.	TL1
C421.2	Measure various physical parameters by appropriately selecting the transducers	TL5
C421.3	Use various types of signal generators, signal analyzers for generating and analyzing various real-time signals.	TL3
C421.4	understanding of use of various measuring techniques for measurement of different physical parameters using different classes of transducers.	TL2
C421.5	understanding of principle of operation, working of different electronic instruments	TL2
C421.6	Strain Gauges, Bounded, unbounded; Force and Displacement Transducers, Resistance Thermometers,	TL4

Course Outcomes: **C422** Wind, Solar and Hybrid Energy Systems

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C422.1	Understand the energy scenario and the consequent growths of the power generate renewable energy sources.	TL1, TL2
C422.2	Understand the basic physics of wind generation.	TL2
C422.3	Understand the of wind generation topologies with different configurations.	TL3, TL4
C422.4	Understand the basic physics of solar power generation.	TL2
C422.5	Understand the power electronic interfaces for wind and solar generation.	TL3, TL4
C422.6	Understand the issues related to the grid-integration of solar and wind energy systems	TL4, TL5

Course Outcomes: **C423** Utilization of Electric Power

Student will able to

CO. No.	Description	Bloom s Taxonomy Level
C423.1	Acquire knowledge on, electric drives characteristics and their applicability in	TL1 , TL2
C423.2	Understands the concepts and methods of electric heating, welding, illumination and electric traction	TL2
C423.3	Apply the above concepts to real-world electrical and electronics problems and applications.	TL4
C423.4	Design and Understand Calculations of tractive effort, power, specific energy	TL5 , TL2
C423.5	Apply Knowledge for System of electric traction and track electrification	TL4
C423.6	Apply Speed-time curves for different services	TL4

Course Outcomes: C424 Major Project

Student will be able to

CO. No.	Description	Bloom s Taxonomy Level
C424.1	Demonstrate the ability to synthesize and apply the knowledge and skills acquired in the academic program to the real-world problems.	TL6
C424.2	Evaluate different solutions based on economic and technical feasibility	TL5
C424.3	Effectively plan a project and confidently perform all aspects of project management	TL6
C424.4	Demonstrate effective written and oral communication skills	TL5