RISE KRISHNA SAI PRKASAM GROUP OF INSTITUTIONS
DEPARTMENT OF ELCTRICAL AND ELECTRONICS ENGINEERING
COURSE OUTCOMES

ACADEMIC YEAR: 2019-20   **EEE**   **YEAR/ SEM: I / I**

CO.NO.	SUBJECT : ENGLISH	B.T.LEVEL
Cl11.1	Understand social or transactional dialogues spoken by native speakers of English and identify the context, topic, and pieces of specific information.	.Understanding
Cl11.2	Recall the familiar topics and general questions to the students	Remembering
Cl11.3	Rephrase suitable strategies for note-making to locate specific information.	Understanding
Cl11.4	Identify the paragraph structure and able to match beginning/sending/heading with paragraph.	Applying
Cl1 1.5.	Make use of grammatical structure and correct word forms.	Applying

CO.NO.	SUBJECT : MATHEMATICS-I	B.T.LEVEL
Cl12.1	Test the convergence of an infinite series , utilize mean value theorems to real life problems and express a function in terms of power series.	Applying
Cl12.2	Solve first order and first degree differential equations arising in various Engineering fields.	Applying
Cl12.3	Solve linear differential equations of higher order and use the knowledge to study LCR Circuits and SHM. —	Applying
Cl12.4	Apply the techniques of multivariable differential calculus to determine extrema and series Expansions of a function of several variables.	Applying
Cl12.5	Using multiple integrals to find areas, surface areas and volumes.	Applying

CO.NO	SUBJECT : APPLIED CHEMISTRY	BT LEVEL
C113.1	Analyzedifferenttypesofcompositematerialsandthepreparation,properties andapplicationsofthepolymers	Analysing
C113.2	Applytheknowledgeofusingredoxchemistryinstoragedevices(batteries)andtechniquesusedforpreventingcorrosion	Applying
C113.3	Summarizetheimportanceofmaterialslikenanomaterials,superconductors,liquidcrystalsandsemiconductors	Understanding
C113.4	Analyzetheprinciplesandapplicationsofanalyticaltechniquesanddifferenttypesofnonconventionalenergysources	Analysing
C113.5	Demonstratetheimportanceofmolecularmachinesandcomputationalchemistry. —	Understanding

CO.NO.	SUBJECT : Programming for Problem Solving Using C	B.T.LEVEL
C1 14.1	To use different operators, data types and write programs that use two-way/ multi-way selection	Applying
C1 14.2	To select the best loop construct for a given problem	Applying
C1 14.3	To design and implement programs to analyze the different pointer applications	Applying
C1 14.4	To decompose a problem into functions and to develop modular reusable code	Understanding
C1 14.5	To apply File, I/O operations	Applying

CO.NO.	SUBJECT : ENGINEERING DRAWING	B.T.LEVEL
C 115.1	Represent dimensions of an object. construct polygons, curves and scales	Remembering
C 115.2	Comprehend theory of projections for points and lines.	Applying
C 115.3	Understand the theory of projection in planes using 1st Angle projection.	Understanding
C 115.4	Understand the projections of solids, when it is inclined to both planes simultaneously.	Understanding
C 115.5	Convert the pictorial views into orthographic view and vice versa and Creating 2D&3D drawings using CAD.	Create

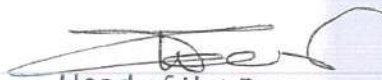| CO.NO	SUBJECT : ENGLISH-LAB	B.T.LEVEL
C116.1	Develop phonetic sounds and uses.	Applying
C116.2	Utilize the knowledge of contrastive word stress, recall word stress and syllabic words.	Applying
C116.3	Classify Rhythm and intonation.	Understanding
C116.4	Identify the context and specific pieces of information to answer a series of questions in speaking.	Applying
C116.5	Identify the structure of reports for professional writing and expertise in it.	Applying

CO.NO	LAB NAME: APPLIED CHEMISTRY-LAB	B.T Level
C117.1	Describetheexperimentalskillstodesignnewexperimentsinengineering.	Understanding
C117.2	Explainthedifferenttypesoftitrationsandacquireskillsininstrumentation.	Understanding
C117.3	Determine hardness of various water samples.	Evaluating
C117.4	Determinethenooffreeionsandchargesinamixtureofacidsusingconductivitymeter.	Evaluating
C117.5	Calculate the potential between reference electrode and unknown solution by using potentiometer.	Evaluating

CO.NO	Programming for Problem Solving Using C Lab	B.T.LEVEL
C118.1	Gains knowledge on various concepts of a C Language.	Understanding
C118.2	Able to draw flow charts and write algorithms.	Applying
C118.3	Able to design and development to C problem solving skills	Applying
C118.4	Able to design and develop modular programming skills	Applying
C118.5	Able to trace and debug a program.	Applying

CO.No.	SUBJECT : ENVIRONMENTAL STUDIES	BT LEVEL
C119.1	Explain the concepts of the ecosystem and its functions in the environment	Understand
C119.2	Summarize the natural resources and their importance for the sustenance of life & need to conserve the natural resources.	Understand
C119.3	Demonstrate the values, threats, conservation practices to protect the biodiversity	Apply
C119.4	Describe various attributes of the pollution and their impacts and measures to reduce pollution along with waste management practices.	Remember
C119.5	Evaluate social issues both rural and urban environment and the possible means to combat the challenges, with help of environmental legislations of India.	Evaluate

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Department of S&H
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COURSE OUTCOMES SUMMARY

ACADEMIC YEAR 2019-2020   **EEE**   **YEAR/ SEM: I / II**

CO.NO.	SUBJECT : MATHEMATICS-II	BT LEVEL
C121.1	Solve system of linear algebraic equations using matrix techniques and find Eigen values and Eigen vectors.	Applying
C121.2	Use Cayley-Hamilton theorem to find inverse and higher powers of matrices and study the nature of Quadratic forms.	Applying
C121.3	Evaluate a root of algebraic and transcendental equations and a solution for system of equations using numerical methods.	Evaluating
C121.4	Apply Newton's interpolation and Lagrange's interpolation formula to find interpolating polynomial.	Applying
C121.5	Evaluate the solutions of ordinary differential equations to its analytical computations using different methods.	Evaluating

CO.NO.	SUBJECT : MATHEMATICS-III	BT LEVEL
C122.1	Interpret the physical meaning of different operators such as gradient, curl and divergence, estimate the work done against a field, circulation and flux and discuss the relation between line, surface, volume integrals using integral theorems	Applying
C122.2	Apply the Laplace transform for solving differential equations	Applying
C122.3	Find or compute the Fourier series of periodic signals and be able to apply integral expressions for the Fourier and inverse Fourier transform to a range of non-periodic waveforms	Applying
C122.4	Formation of partial differential equation and Identify solution methods for first order partial differential equations	Applying
C122.5	Classify higher order partial differential equations and solve heat flow and wave problems	Applying

CO.NO.	SUBJECT : APPLIED PHYSICS	BT LEVEL
C123.1	Analyze the differences between interference and diffraction with applications	Analyzing
C123.2	Explain the fundamental concepts of quantum mechanics.	Understanding
C123.3	Explain the various electron theories .	Understanding
C123.4	Classify the energy bands of semiconductors	Understanding
C123.5	Explain the applications of dielectric and magnetic materials	Understanding

CO.NO.	SUBJECT : FUNDAMENTALS OF COMPUTERS	BT LEVEL
C124.1	Explain the concept of input and output devices of Computers and how it works and recognize the basic terminology used in computer programming	Understanding
C124.2	Recognize the Computer networks, types of networks and topologies	Understanding
C124.3	Summarize the concepts of Operating Systems and Databases	Understanding
C124.4	Recite the Advanced Computer Technologies like Distributed Computing & Wireless Networks.	Applying
C124.5		

CO.NO.	SUBJECT : Electrical Circuit Analysis - I	BT LEVEL
C125.1	Analyze basic concepts of electrical circuits of active and passive circuits	Analyzing
C125.2	Find out Co-efficient of coupling for magnetic circuits	Applying
C125.3	Estimate of power factor for lagging and leading networks	Evaluating
C125.4	Draw the locus diagrams for series and parallel RL & RC networks	Applying
C125.5	Apply theorems for electrical circuits both DC & AC networks.	Remembering

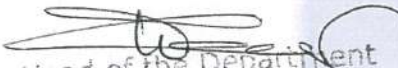| CO.NO.	SUBJECT : Electrical Engineering Workshop	BT LEVEL
C126.1	Identify the tools, and its symbols, resistors, capacitors	Understanding
C126.2	Explain the limitations, tolerances, safety aspects of electrical systems and wiring.	Understanding
C126.3	Selectwires/cablesandotheraccessoriesusedindifferenttypesofwiring.	Understanding
C126.4	Make simple lighting and power circuits.	Applying
C126.5	Measure current, voltage and power in a circuit.	Applying

CO.NO.	SUBJECT : APPLIED PHYSICS LAB	BT LEVEL
C127.1	Apply the basic concepts of mechanics to determine rigidity modulus of a material by using Torsional pendulum.	Applying
C127.2	Apply the basic concepts of laser and techniques for the Diffraction Grating.	Applying
C127.3	Apply the basic concepts of magnetism to study the variation of B versus H.	Applying
C127.4	Apply the basic concepts of dielectrics to determine dielectric constant by charging and discharging method.	Applying
C127.5	Apply the mathematical concepts/equations to obtain quantitative results	Evaluating

CO.NO.	SUBJECT : COMMUNICATION SKILLS LAB	BT LEVEL
C128.1	Develop phonetic sounds and uses.	Applying
C128.2	Recall words stress and syllabic words.	Remembering
C128.3	Classify Rhythm an intonation.	Understanding
C128.4	Utilize the knowledge of contrastive word stress.	Applying
C128.5	Compose weak and strong forms.	Creating

CO.NO.	SUBJECT : ENGINEERING EXPLORATION PROJECT	BT LEVEL
C129.1	Demonstrate a through and systematic understanding of project contents.	Understanding
C129.2	Design a system, component or process to meet desired needs in electrical engineering.	Analyzing
C129.3	Understand methodologies and professional way of documentation and communication.	Applying
C129.4	Know the key stages in development of the project.	Analyzing
C129.5	Extend or use the idea in mini project for major project.	Applying

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Department of Electrical and Electronics Engineering

COURSE OUTCOME SUMMARY

AY: 2019-20   **SEM: I**   **YEAR: II**

CO No.	Course Name: ECA-II	Taxonomy level
After completion of this course the student will be able to		
C 211.1	Explain the concepts Balanced three phase circuit.	Remembering
C 211.2	Explain the concepts three phase unbalanced circuit.	Understanding
C 211.3	find out transient response of electrical networks with different types of excitations	Applying
C 211.4	Estimate the different types of two port network parameters.	Applying
C 211.5	Synthesize the different networks	Creating
C 211.6	Extract different harmonics components from the response of a electrical network.	Analyzing
CO. No	Course Name: EM-I	Taxonomy level
C 212.1	Explain the principles of electromechanical energy conversion.	Understanding
C 212.2	Describe the performance of DC machines.	Understanding
C 212.3	Distinguish speed control methods.	Analyzing
C 212.4	Analyze the performance of single phase transformers.	Analyzing
C 212.5	Illustrate the methods of testing of single-phase transformer.	Applying
C 212.6	Identify the three phase transformers connections.	Understanding
CO No.	Course Name: BED	Taxonomy level
C213.1	Describe the basic concepts of semiconductor physics, which are useful to understand the operation of diodes and Transistors.	Understanding
C213.2	Analyze the operation & V-I characteristics of diodes	Analyzing
C213.3	Design operation and design aspects of rectifiers and regulators	Designing
C213.4	Analyze biasing methods, Stabilization and Compensation techniques of Transistors.	Analyzing
C213.5	Explain the operation and characteristics of FET, Thyristors, Power IGBTs and Power MOSFETs	Understanding
C213.6	Explain the merits and demerits of positive and negative feedback and the role of feedback in oscillators and amplifiers	Understanding

CO. No	Course Name: EMF	Taxonomy level
C214.1	Develop the electric field and potentials using Gauss's law or solving Laplace's and Poisson's equation	Applying
C214.2	Solve the capacitance, energy stored in dielectrics and get the concept of conduction and convection currents	Applying
C214.3	find magnetic field intensity due to current , the application of Ampere's law and the Maxwell's second and third equations	Remembering
C214.4	Explain magnetic forces and torque produced by currents in magnetic fields	Understanding
C214.5	Calculate self and mutual inductances and energy stored in the magnetic field	Applying
C214.6	Apply the knowledge on time varying fields and get ability to calculate induced emf. Concepts of displacement current and poynting vector and associated problems are solved.	Applying
CO. No	Course Name: T&HPM	Taxonomy level
C215.1	Distinguish various types of internal combustion engines and calculate the performance of different types of internal combustion engines.	Applying
C215.2	Understand steam formation and the standard steam data tables and	Understanding
C215.3	Understand the methods to improve the efficiency of gas turbines	Applying
C215.4	Understand fluid jets and various types of pumps, working and performance	Analyzing
C215.5	Discuss about various types of hydraulic turbines and calculate the performance of hydraulic turbines	Analyzing
C215.6	To train the areas of types of hydro electric power plants, estimation and calculation of different loads by considering various factors.	Evaluating
CO. No	Course Name: MEFA	Taxonomy level
C216.1	Relate Economic Principles with Business Practices for getting successful outcomes	Remembering
C216.2	Make use of Cost analysis to find Break Even Point (BEP) of an enterprise in order to avoid losses	Applying
C216.3	Compare the Price – out determinations under different competitions in the Markets and Pricing strategies	Understanding
C216.4	Interpret different forms of business organizations and the new economic environment in the real business	Understanding
C216.5	Make use of the financial statements and relevant ratios for evaluating company's financial performance to make optimal decisions	Applying
C216.6	Illustrate different Capital Budgeting Methods to estimate the best investment decision in business practices	Understanding
CO. No	Course Name: TH&PM LAB	Taxonomy level

C217.1	Understand various engine systems along with their function and necessity.	Understanding
C217.2	Conduct constant speed and variable speed tests on IC engines and interpret their performance.	Applying
C217.3	Test the performance of impact of Jets.	Applying
C217.4	Calibrate flow discharge measuring device used in pipes channels and tanks.	Applying
C217.5	Test the performance of pumps and turbines.	Applying
CO. No	**Course Name: EC LAB**	**Taxonomy level**
C218.1	Verify the various theorems for the given network.	Analyzing
C218.2	Determine the Z, Y, ABCD, Hybrid parameters for the network.	Applying
C218.3	Determine the resonance frequency, quality factor and bandwidth for RLC series and parallel network	Applying
C218.4	Determine the self, mutual inductance and coupling co-efficient of given circuit.	Applying
C218.5	Draw the locus diagrams for given circuits	Understanding
C218.6	Measure the three phase power for unbalanced loads	Understanding

Coordinator

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COURSE OUTCOMESUMMARY

AY: 2019-20   SEM: II   YEAR: II

CO No.	Course Name: EM	Taxonomy Level
After completion of this course the student will be able to		
C221.1	Match right type of instrument for measurement of voltage and current for ac and dc.	Remembering
C221.2	Select right type of instrument for measurement of power and energy able to calibrate energy meter by suitable method	Remembering
C221.3	Analyze ammeter and potentiometer	Analyzing
C221.4	select suitable bridge for measurement of electrical parameters	Remembering
C221.5	use the ballistic galvanometer and flux meter for magnetic measuring instruments	Understanding
C221.6	Measure frequency and phase difference between signals using CRO. Able to use digital instruments in electrical measurements.	Understanding
CO. No	Course Name: EM-II	Taxonomy Level
C222.1	Explain about the constructional details and principle of operation of Three Phase Induction Motor	Understanding
C222.2	Analyze about speed torque characteristics and find the speed control methods of Three Phase Induction Motor	Analyzing
C222.3	Explain about the constructional details and principle of operation of Single Phase Induction Motor	Understanding
C222.4	Design winding factors and predetermine the regulation of Synchronous Generator	Evaluating
C222.5	Predetermine the load sharing on Synchronous Generator	Evaluating
C222.6	Avoid hunting phenomenon, implementation methods of starting and correction of power factor with Synchronous Motor	Applying
CO No.	Course Name: STLD	Taxonomy Level
C223.1	Illustrate numbering systems.	Understanding
C223.2	Apply Boolean theorems and postulates in minimization of switching functions	Applying
C223.3	Design combinational circuits.	Creating
C223.4	Compare realization of Boolean functions using PROM, PAL, PLA.	Understanding
C223.5	Classify various sequential circuits.	Understanding
C223.6	Analyze sequential circuits.	Analyzing
CO. No	Course Name: CS	Taxonomy Level

CO. No	Course Name	Taxonomy Level
C2241	Derive the transfer functions of a physical system.	Applying
C2242	calculate time domain specifications of the LTI systems	Applying
C2243	Analyze stability of LTI systems by plotting root locus	Analyzing
C2244	Draw bode and Nyquist plots for stability analysis of LTI systems	Analyzing
C2245	Design compensators to improve system performance.	Evaluating
C2246	Model the physical systems in state space.	Applying
CO. No	Course Name: PS-1	Taxonomy Level
C225.1	Explain the construction and operation of thermal power station	Understanding
C225.2	Identify different components in nuclear power station	Understanding
C225.3	Distinguish between AC and DC distribution system and estimate voltage drops	Applying
C225.4	Illustrate different components of air and gas insulated substations	Applying
C225.5	Identify single core and multi core cables with different insulating	Analyzing
C225.6	Analyze different economic factors of power generation and tariff	Applying
CO. No	Course Name: MS	Taxonomy Level
C226.1	Apply management science in decision making process& its importance, evaluation of management thought, how organisation structure is designed and its principle and types.	Applying
C226.2	List the types of management about work study, how quality is controlled, control charts and inventory control and their types.	Remembering
C226.3	Explain the main functional areas of organisation i.e., Financial Management, Production Management, Marketing Management, Human resource Management, Product life cycles and Channels of Distribution.	Understanding
C226.4	Illustrate the Development of Network And Identifying Critical Path.	Understanding
C226.5	Explain the concept of strategic management, environmental scanning, swot analysis and steps in strategy formulation and implementation.	Understanding
C226.6	Illustrate basic concepts of MIS, MRP,JIT,TQM, Six sigma, CMM, S ply chain management, ERP , BPO , about performance management, nch marking and balance score	Understanding
CO. No	Course Name: EM-I LAB	Taxonomy Level
C227.1	Determine the performance of DC machines and transformers.	Applying
C227.2	Determine the performance of transformers	Applying
C227.3	Describe three phase to two phase transformation and parallel connection of transformers	Applying
CO. No	Course Name: EDC LAB	Taxonomy Level
C228.1	Identify different active and passive electronic components used in the lab.	Applying

C228.2	Observe the characteristics of PN and Zener diode.	Analyzing
C228.3	Analyze the characteristics of Half wave and Full wave Rectifiers with and without filters	Analyzing
C228.4	Observe the characteristics of BJT, FET, UJT and SCR.	Analyzing
C228.5	Measure the Lissajous figures using CRO.	Evaluating
C228.6	Measure the frequency response characteristics of BJT and FET Amplifiers.	Evaluating

Faculty Coordinator

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Department of Electrical and Electronics Engineering

COURSE OUTCOMESUMMARY

AY: 2019-20   SEM: I   YEAR: III

CO. No	Course Name: PS-II	Taxonomy level
_C311.1	Calculate the parameters of various types of transmission lines during different operating conditions.	Applying
C311.2	Analyze short and medium transmission lines	Analyzing
C311.3	Model long transmission lines.	Applying
C311.4	Compare travelling waves on transmission lines at different conditions	Analyzing
C311.5	Describe various factors related to charged transmission lines.	Understanding
C311.6	Calculate sag/tension of transmission lines and performance of line insulators.	Applying
CO. No	Course Name: RES	Taxonomy level
C312.1	Identify energy resources across the world and India.	Understanding
C312.2	Analyze the performance of flat plate collector, introducing solar air heaters and solar pond.	Analyzing
C312.3	Design solar Photo Voltaic systems	Applying
C312.4	Compare types of wind turbines, wind generators.	Understanding
C312.5	Explain the working principle of hydro and tidal power systems.	Understanding
C312.6	Differentiate biomass, fuel and geo-thermal energy resources.	Understanding
CO. No	Course Name: S&S	Taxonomy level
C313.1	Classify the signals and systems and principles of vector spaces, Concept of orthogonality.	Understanding
C313.2	Analyze the continuous-time signals and continuous-time systems using Fourier series and Fourier transform.	Analyzing
C313.3	Apply sampling theorem to convert continuous-time signals to discrete-time signal and reconstruct back.	Applying
C313.4	Explain the relationships among the various representations of LTI systems and concepts of convolution, correlation, Energy and Power density spectrum and their relationships.	Understanding
C313.5	Apply Laplace-transform to analyze continuous-time signals and systems.	Analyzing
C313.6	Apply z-transform to analyze discrete-time signals and systems.	Analyzing
CO. No	Course Name: PDC	Taxonomy level
C314.1	Design linear wave shaping circuits.	Designing
C314.2	Design non-linear wave shaping circuits.	Designing

C314.3	Apply the fundamental concepts of wave shaping for various switching, Analysis of Bistable Multivibrator.	Applying
C314.4	Analysis of Mono stable multi vibrator and Astable Multivibrator.	Analyzing
C314.5	Analysis of different Time base Generators	Analyzing
C314.6	Understand the concept of Logic gates & Sampling gates	Understanding
CO. No	**Course Name: PE**	**Taxonomy level**
C315.1	Explain the characteristics of various power semi conductor devices	Understanding
C315.2	Design firing circuits for scr	creating
C315.3	Explain the operation of single phase full wave converters	Understanding
C315.4	Explain the operation of three phase full wave converters	Understanding
C315.5	Analyze the operation ofsingle phase cyclo converters	Analyzing
C315.6	Explain the working of inverters	Understanding
CO. No	**Course Name: IPRP**	**Taxonomy level**
C319.1	Outline different types of Intellectual Properties (IPs), the right of ownership, scope of protection as well as the ways to create and to extract value from IP.	Understanding
C319.2	Recognize the crucial role of IP in organizations of different industrial sectors for the Purposes of product and technology development.	Remembering
C319.3	Identify activities and constitute IP infringements and the remedies available to the IP owner.	Understanding
C319.4	Describe the precautious steps to be taken to prevent infringement of proprietary rights.	Understanding
C319.5	Understand importance of IP in products and technology development.	Understanding
C319.6	Discuss with the processes of Intellectual Property Management (IPM) and various approaches for IPM	Creating
CO. No	**Course Name: EM-II LAB**	**Taxonomy level**
C316.1	Determine the efficiency and regulation of transformer's and their performance	Applying
C316.2	Determine the regulation of three phase alternator by various methods and X_d/X_q ratio of alternator and the performance of the synchronous motor	Applying
C316.3	Apply various tests on the induction motor to know its performance	Applying
CO. No	**Course Name: CS LAB**	**Taxonomy level**
C317.1	Analyze The Performance And Working Magnetic Amplifier, D.C. Servo Motors, A.C. Servo Motors And Synchronous Motors.	Analyzing
C317.2	Design P,PI,PD And PID Controllers And Control The Temperature Using PID Controller	Creating
C317.3	Design Lag, Lead And Lag–Lead Compensators	Creating
C317.4	Determine The Transfer Function Of D.C Motor And Control The Position Of D.C Servo Motor Performance	Evaluating

CO. No	Course Name: EM LAB	Taxonomy level
C318.1	Calculate the electrical parameters voltage, current, power, energy and electrical characteristics of resistance, inductance and capacitance.	Applying
C318.2	Testing of transformer oil for its effectiveness.	Analyzing
C318.3	Calculate the parameters of inductive coil.	Applying
C318.4	Measure the power using C.T's	Analyzing

Coordinator

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COURSE OUTCOMESUMMARY

AY: 2019-20   **SEM: II**   **YEAR: III**

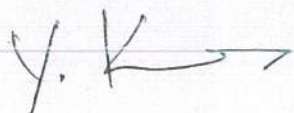| CO. No	Course Name: PEC&D	Taxonomy level
C321.1	Explain the fundamentals of electric drive and different electric braking methods.	Understanding
C321.2	Analyze the operation of three phase converter fed dc motors and four quadrant operations of dc motors using dual converters.	Analyzing
C321.3	Classify the converter control of dc motors in various quadrants of operation.	Understanding
C321.4	Know the concept of speed control of induction motor by using AC voltage controllers and voltage source inverters.	Understanding
C321.5	Compare the stator side control and rotor side control of three phase induction motor.	Understanding
C321.6	Explain the speed control mechanism of synchronous motors.	Understanding
CO. No	Course Name: PSA	Taxonomy level
C322.1	Draw an impedance diagram and construct Y_{BUS} matrix for a power system network.	Understanding
C322.2	Find out the load flow solution of a power system network using different load flow methods.	Analyzing
C322.3	Compute Z_{BUS} for a power system network.	Applying
C322.4	Derive and find out the fault current for different types of faults.	Analyzing
C322.5	Find out the sequence components of currents for any unbalanced power system network and draw the sequence network diagrams.	Analyzing
C322.6	Analyze the steady state, transient and dynamic stability concepts of a power system.	Analyzing
CO. No	Course Name: MP&MC	Taxonomy level
C323.1	Analyze the organization and architecture of 8086 Micro Processor	Analyzing
C323.2	Analyze the addressing modes to access memory	Analyzing
C323.3	Apply the interfacing concepts of 8086 microprocessor with IO as well as other devices	Analyzing
C323.4	Analyze the features and programming tools of 8051 microcontrollers.	Understanding

C323.5	Discuss the features of PIC microcontrollers	Understanding
C323.6	Implement programs for PIC microcontroller based systems for real time applications using high-level language C.	Understanding
CO. No	**Course Name: DS**	**Taxonomy level**
C324.1	Demonstrate array adt and its operations	Applying
C324.2	Discuss about stack adt, queue adt and its operations	Understanding
C324.3	Perform different operations for storage and retrieval of data on linked lists	Applying
C324.4	Demonstrate binary search tree, heap tree, threaded binary tree and binary tree	Applying
C324.5	Design different types of graphs and the algorithm based on the graphs	Applying
C324.6	Explain concepts of sorting techniques	Understanding
CO. No	**Course Name: NN&FL**	**Taxonomy level**
C325.1	Identify different models of artificial neuron	Understanding
C325.2	Illustrate learning methods of ANN.	Understanding
C325.3	Select suitable algorithm of ANN for the given application	Applying
C325.4	Classify between classical and fuzzy sets	Understanding
C325.5	Explain Fuzzy logic controller.	Understanding
C325.6	Discuss the applications of Neural Networks and fuzzy logic	Applying
CO. No	**Course Name: PE LAB**	**Taxonomy level**
C326.1	Determine the characteristics of various power electronic devices and analyze gate drive circuits of IGBT.	Analyzing
C326.2	Analyze the performance of single–phase and three–phase full–wave bridge converters with both resistive and inductive loads.	Analyzing
C326.3	Analyze the performance of single phase AC voltage regulators with different loads and working principles of single phase and three phase converters	Analyzing
C326.4	Explain the working of inverters and application of PWM techniques for voltage control and harmonic mitigation	Understanding
CO. No	**Course Name: MP&MC LAB**	**Taxonomy level**
C327.1	Write and Simulate arithmetic; logical operations using TASM	Analyzing
C327.2	Write and Simulate string operations using TASM	Analyzing
C327.3	write an ALP to generate interrupt using 8259 PIC and display a message using 8279	Analyzing
C327.4	write an ALP to generate a waveform using PPI and also to communicate between two processors	Analyzing
C327.5	Write and simulate to make serial communication, reading & writing , timers using 8051 MC	Analyzing
C327.6	Verify interfacing modules like optoisolator, DC motor using C language with PIC 18	Analyzing
CO. No	**Course Name: DS LAB**	**Taxonomy level**
C328.1	Implement and test the functionally data structures like stacks, queues, and linked list	Analyzing

C328.2	Implement and test the functionally of searching and sorting techniques	Analyzing
C328.3	Implement and test the functionally of trees and graph traversal techniques	Analyzing
C328.4	Improve individual or team work skills, communication and report writing skills	Understanding

Coordinator

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Department of Electrical and Electronics Engineering

COURSE OUTCOMESUMMARY

AY: 2019-20   —   SEM: I   YEAR: IV

CO. No	Course Name: UEE	Taxonomy level
C411.1	Identify a suitable motor for electric drives and industrial applications	Applying
C411.2	Explain with the different types of heating and welding techniques	Applying
C411.3	Explain the basic principles of illumination and its measurement	Understanding
C411.4	Understand the different types of lightning system including designs	Understanding
C411.5	Determine the speed/time characteristics of different types of traction devices	Applying
C411.6	Analyze energy consumption levels at various modules of operation	Analyzing
CO. No	Course Name: LICA	Taxonomy level
C412.1	Analyze the characteristics of different amplifiers	Analyzing
C412.2	Analyze the DC and AC characteristics of operational amplifiers	Analyzing
C412.3	Design linear and non linear applications of op-ampa	Applying
C412.4	Design active filters using op-amps	Applying
C412.5	Implement the applications of special ICs like Timer and PLL	Understanding
C412.6	Analyze the conversion techniques of DAC and ADC using op-amps	Applying
CO. No	Course Name: PSOC	Taxonomy level
C413.1	Select optimal scheduling for generators.	Applying
C413.2	Understand and demonstrate hydrothermal scheduling.	Understanding
C413.3	Solve unit commitment problem.	Applying
C413.4	Understand load frequency control problem.	Applying
C413.5	Demonstrate various PID controllers in single area and two area systems.	Understanding
C413.6	Apply reactive power control techniques or line power compensation.	Applying
CO. No	Course Name: SGP	Taxonomy level
C414.1	Explain the principles of arc interruption for application to high voltage circuit breakers	Understanding

CO. No		Taxonomy level
C414.2	Describe the working principles and constructional features of different types of electro magnetic protective relays	Understanding
C414.3	Identify faults that is observed to occur in highnpower generator and transformers and protective schemes used for all protection	Remembering
C414.4	Differentiate various types of protective schemes used for feeders and bus bar protection	Understanding
C414.5	Illustrate types of static relays with a view to application in the transmission system	Applying
C414.6	Identify types of over voltages appearing in the system, including existing protective schemes required for insulation coordination	Remembering
CO. No	**Course Name: INS**	**Taxonomy level**
C415.1	Classify the various types of signals and modulation techniques	Understanding
C415.2	Acquire proper knowledge to use various types of transducers	Understanding
C415.3	Classify and measure various parameters such as strain velocity, temperature and pressure etc	Applying
C415.4	Develop proper knowledge and working principles of various types of digital voltmeters	Understanding
C415.5	Measure various parameters like magnitude, phase and frequency of a signal with the help of a CRO	Understanding
C415.6	Acquire proper knowledge and able to handle various types of signal analyzers	Understanding
CO. No	**Course Name: SEM**	**Taxonomy level**
C416.1	Distinguish between brushed DC motor and brushless DC motor	Understanding
C416.2	Explain the performance and control of stepper motors	Understanding
C416.3	Discuss operation and control of switched reluctance motor	Understanding
C416.4	Derive the torque equation of BLDC motor	Applying
C416.5	Compare between BLDC and PMSM motors	Understanding
C416.6	Understand the construction and operation of LIM	Understanding
CO. No	**Course Name: ES LAB**	**Taxonomy level**
C417.1	Simulate integrator circuit, differentiator circuit, Boost converter, Buck converter, full convertor and PWM inverter, transmission line by incorporating line, load and transformer models.	Analyzing
C417.2	Perform transient analysis of RLC circuit by PSPICE.	Analyzing
C417.3	Find load flow solution for a transmission network with Newton– Rampson method, by using MATLAB.	Analyzing
CO. No	**Course Name: PS LAB**	**Taxonomy level**
C418.1	Determine the sequence impedance of Alternator and	Analyzing

	Transformer.	
C418.2	Determine the transmission line parameters.	Applying
C418.3	Estimate the dielectric breakdown voltage of transformer oil.	Analyzing
C418.4	Study the operation and calibrate tong tester	Remembering
C418.5	Design and simulation of load frequency controllers, stability analysis and load flow studies of power system network	Analyzing

Coordinator

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(An ISO 9001:2015 certified Institute)
NH-16, Valluru,-523272, Ongole, Prakasam District, A.P
Department of Electrical and Electronics Engineering

COURSE OUTCOMESUMMARY

AY: 2019-20   SEM: II   YEAR: IV

CO. No	Course Name: DCS	Taxonomy level
C421.1	Analyze the Frequency Domain Characteristics Of Hold Circuits.	Analyzing
C421.2	Solve pulse transfer functions to find open loop and closed loop responses.	Applying
C421.3	Test the controllability and observability of discrete time systems.	Analyzing
C421.4	Analyze the stability of a given discrete time systems.	Analyzing
C421.5	Design of discrete–time control systems by Root locus technique.	Applying
C421.6	Design of state feedback controller.	Analyzing
CO No.	Course Name: HVAC&DC	Taxonomy level
C422.1	Explain the mechanical considerations of HV transmission system.	Understanding
C422.2	Illustrate the corona effects on transmission lines	Understanding
C422.3	Compare DC & AC transmission systems	Understanding
C422.4	Analyze the characteristics HVDC converters	Analyzing
C422.5	Describe reactive power control in HVDC	Analyzing
C422.6	Design of filters for harmonic elimination in transmission line.	Analyzing
CO. No	Course Name: EDS	Taxonomy level
C423.1	Explain the various factors of distribution system.	Understanding
C423.2	Explain the substation and feeders.	Understanding
C423.3	Determine the voltage drop and power loss of distribution systems	Applying
C423.4	Describe the protection and its coordination of distribution system	Understanding
C423.5	Discuss the effect of compensation , power factor improvement in distribution systems	Understanding
C423.6	Discuss the effect of voltage, current in distribution system	Understanding

CO. No	Course Name: FACTS	Taxonomy level
C424.1	Determine power flow control in transmission lines by using FACTS controllers	Analyzing
C424.2	Describe operation and control of voltage source inverters	Analyzing
C424.3	Demonstrate compensation methods to improve stability and reduce power oscillations in the transmission lines	Understanding
C424.4	Explain the method of shunt compensation by using static VAR compensators	Understanding
C424.5	Apply the methods of compensation by using series compensators	Applying
C424.6	Illustrate the operation of modern power electronic controllers	Understanding
CO. No	Course Name: SEMINAR	Taxonomy level
C425.1	Show competence in identifying relevant information, defining and explaining topics under discussion	Understanding
C425.2	Demonstrate that they have paid attention to what others say and can respond constructively	Understanding
C425.3	Develop persuasive speech, present information in a compelling, well- structured , and logical sequence, respond respectfully to opposing ideas	Analyzing
C425.4	Demonstrate use of methodologies , show insight to a topic, and clarity of purpose	Understanding
C425.5	Show a rich vocabulary , appropriate use of register, time clarity, and appropriate voice modulation	Understanding
C425.6	Develop their ability to synthesize, evaluate and reflect on information	Analyzing
CO. No	Course Name: PROJECT	Taxonomy level
C426.1	Identify, analyze, formulate and handle projects with a systematic approach.	Analyzing
C426.2	Select an appropriate tool/design procedure for implementation of the project.	Analyzing
C426.3	Apply the theoretical concepts to solve industrial problems with teamwork and multidisciplinary approach.	Applying
C426.4	Communicate with engineers and the community at large in written and oral.	Applying
C426.5	Demonstrate the knowledge, skills and attitudes of a professional engineer.	Understanding
C426.6	Ability to understand advanced technological solutions to engineering problems.	Understanding

Coordinator

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