



RISE KRISHNA SAI PRAKASAM GROUP OF INSTITUTIONS::ONGOLE

(Approved by AICTE-NEW DELHI, Affiliated to JNTUK KAKINADA)

NH-16, Valluru,-523272, Ongole, Prakasam District, A.P

DEPARTMENT OF ECE

COURSE OUTCOMES SUMMARY

I Year I Semester

A Y:2018-2019

CO No.	Subject: English-I	Taxonomy Level
After completing the course the student shall be able to		
C111.1	Students enhanced communication skills and team work	Applying
C111.2	students can understand the structure of a paragraph	Understanding
C111.3	students will improve self motivation and self esteem	Creating
C111.4	students can apply problem solving adaptability and stress management in their lives	Applying
C111.5	students will learn personal presentation	Analyzing
C111.6	students will develop conversation proficiency	Applying

CO No.	Subject: Mathematics-I	Taxonomy Level
After completing the course the student shall be able to		
C112.1	Find the solutions of first order ordinary differential equations.	Understanding
C112.2	Apply the technique of solving ordinary differential equations in some engineering problems like electrical circuits, simple harmonic motions etc.	Applying
C112.3	Define Laplace transform and inverse Laplace transform of various functions and solve ordinary differential equations using Laplace transform.	Applying
C112.4	Utilize the technique of partial differentiation to find the extreme values of functions of several variables.	Applying
C112.5	Find the solutions of linear and nonlinear partial differential equations of first order.	Understanding
C112.6	Solve the higher order linear partial differential equations.	Understanding

CO No.	Subject: Mathematics-II	Taxonomy Level
After completing the course the student shall be able to		
C113.1	Understand the most basic numerical method to solve simultaneous linear equations.	Understanding
C113.2	Define interpolation and compute interpolating polynomial from the given data using interpolating formula.	Remembering
C113.3	Solve differential equations numerically using numerical methods.	Applying
C113.4	Understand the basic concepts of complex function and analytic functions using C-R equations.	Remembering
C113.5	Make use of Cauchy's theorem and Cauchy's Integral theorem to evaluate complex integration.	Applying
C113.6	Make use of residues to evaluate complex integration.	Applying

CO No.	Subject: Applied Physics	Taxonomy Level
After completing the course the student shall be able to		
C114.1	Explain the properties of light supporting the wave nature and working of optical instruments	Understanding



C114.2	Apply Lasers in scientific research and engineering by developing knowledge on basic principle in the working of Lasers & optical fibers.	Applying
C114.3	Describe the concept of Electrical or Electronic gadgets and their performance under E- or H- fields.	Understanding
C114.4	Explain the concept of Acoustics of Buildings, and the behavior of materials in the external magnetic and electric fields and physical significance of Maxwell's equations.	Understanding
C114.5	Explain the concept of matter waves, free electron theory and origin of energy band formation in solids .	Understanding
C114.6	Explain the intrinsic and extrinsic semiconductors ,drift ,diffusion currents in semiconductors.	Understanding

CO No.	Subject: Computer Programming	Taxonomy Level
After completing the course the student shall be able to		
C115.1	Explain the basic terminology used in computer programming	Understanding
C115.2	Discuss the design of Algorithms, writing and executing programs	Understanding
C115.3	Explain the different data types, selection and Basic loop structures	Understanding
C115.4	Apply the modular programming and recursive solution formulations.	Applying
C115.5	Demonstrate the data representations using arrays.	Applying
C115.6	Implement data structures, dynamic memory, create, update data files	Applying

CO No.	Subject: Engineering Drawing	Taxonomy Level
After completing the course the student shall be able to		
C116.1	Learn the usage of drawing instruments and how to draw Polygons, Engineering Curves and Scales	Remembering
C116.2	Explain about the Orthographic Projections, Projection of Points And Lines	Understanding
C116.3	Solve and draw the projections of straight lines inclined to both the planes	Applying
C116.4	Solve and draw the projection of planes	Applying
C116.5	Solve and draw the projection of solids	Applying
C116.6	Draw the Isometric Views to Orthographic Views and vice versa .	Applying




CO No.	Subject: English-Communications Skills Lab-I	Taxonomy Level
After completing the course the student shall be able to		
C117.1	Explain the basic concepts of language useful for pupils in their career	Applying
C117.2	Illustrate the usage of tenses in everyday life.	Understanding
C117.3	Apply the techniques of science through language ability in a practical way.	Applying
C117.4	Make use of grammatical sentences for perfect communication	Creating
C117.5	Analyze the importance of future tense with examples	Analyzing
C117.6	Find the speaking and writing skills through reading ability of safety measures	Applying

CO No.	Subject: Applied Physics Lab	Taxonomy Level
After completing the course the student shall be able to		
C118.1	Explain the appropriate application of Optics in Newton rings	Understanding
C118.2	Explain the appropriate application of Optics in Diffraction Grating	Understanding
C118.3	Apply the basic concepts of laser and techniques for the optics experiments.	Applying
C118.4	Apply the mathematical concepts/equations to obtain quantitative results.	Applying
C118.5	Explain the basic concepts of semiconductor physics, which are useful to understand the operation of Zener diode and PN junction diode	Understanding
C118.6	Develop basic communication skills through working in groups in performing the laboratory experiments and by interpreting	Evaluating

CO No.	Subject: Engineering Workshop & IT Workshop	Taxonomy Level
After completing the course the student shall be able to		
C119.1	Identify the different tools and prepare prototypes in the trades of Carpentry and Tinsmithy such as Cross half lap joint, Dove tail joint, rectangular Tray and Open scoop	Applying
C119.2	Identify the different tools and prepare prototypes in the trades of Fitting and Black smithy	Applying
C119.3	Apply the various House Wiring techniques such as connecting one lamp with one switch, connecting one lamp with two switches, connecting a fluorescent tube	Applying
C119.4	Apply the knowledge for computer assembling, software installation and trouble shoot and up gradation of system	Applying
C119.5	Learn MS-office package, internet tools and Apply the tools for preparation of PPT, Document, Word, spread sheet etc	Applying




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DEPARTMENT OF ECE

COURSE OUTCOMES

I Year II Semester

A Y:2018-2019

CO No.	Subject: English-II	Taxonomy Level
After completing the course the student shall be able to		
C121.1	Acquire the knowledge of education and how to serve the society accordingly	Remembering
C121.2	Classify the different perspective of science in the sense of a common man and scientist	Understanding
C121.3	Apply the knowledge to adjust ourselves towards the environmental conditions in the society	Applying
C121.4	Create an awareness on the present day and traditional beliefs	Applying
C121.5	Create the awareness on health threats due to climate changes.	Applying
C121.6	Identify the greatness and the hard work of the pioneers and try to inspire in attaining language communication skills	Remembering

CO No.	Subject: Mathematics-III	Taxonomy Level
After completing the course the student shall be able to		
C122.1	Applying analytical and numerical techniques to solve linear system of equations using matrices.	Applying
C122.2	Find the Eigen values and Eigen vectors of the square matrices and discuss the nature of quadratic forms.	Remembering
C122.3	Applying the techniques of multiple integrals to find the areas and volumes.	Applying
C122.4	Find the values of definite integrals using Beta and Gamma functions.	Remembering
C122.5	Find the gradient of scalar point functions, divergence and curl of vector point functions.	Remembering
C122.6	Applying Green's, Stokes and Gauss's divergence theorems to find line, surface and volume integrals.	Applying

CO No.	Subject: Applied Chemistry	Taxonomy Level
After completing the course the student shall be able to		
C123.1	Differentiate the plastics and rubber materials and their uses.	Analysing
C123.2	Explain the origin of fuel and their economic advantages and limitations.	Understanding
C123.3	Explain the working of batteries and its applications.	Understanding
C123.4	Describe the synthesis of nano materials and green methods.	Understanding
C123.5	Classify the types of solids and magnetic materials	Understanding
C123.6	Discuss the non conventional energy resources and fuel cells	Understanding



CO No.	Subject: Electrical & Mechanical Technology	Taxonomy Level
After completing the course the student shall be able to		
C124.1	Explain the principles of electrical law's, principles of operation details of DC machine and transformers	Understanding
C124.2	Analyze the principle and operation of alternator&3-phase Induction motor	Analyzing
C124.3	Explain the principle & construction of various measuring instruments	Understanding
C124.4	Identify renewable energy sources and their utilization & demonstrate the ability to perform a thermodynamic analysis of Otto, Diesel, and Dual cycle models.	Applying
C124.5	Understand how heat and energy is transferred between the elements of a system for different configurations.	Understanding
C124.6	Understand mechanism of power transfer through belt, rope, chain and gear drives & also functions and operations of machine tools	Understanding

CO No.	Subject: Data Structures	Taxonomy Level
After completing the course the student shall be able to		
C125.1	Find solutions to different problems using arrays.	Understanding
C125.2	Find solutions to different problems using stack and queue	Understanding
C125.3	Perform different operations for storage and retrieval of data on linked lists.	Applying
C125.4	Handle various operations like searching, insertion, deletion, Traversing mechanism etc. on various Trees data structures	Applying
C125.5	Handle various operations like searching, Traversing mechanism etc. on various Graph data structure	Applying
C125.6	Explain concepts of sorting techniques	Understanding



CO No.	Subject: Environmental Studies	Taxonomy Level
After completing the course the student shall be able to		
C126.1	Explain the concepts of the ecosystem and its functions in the environment.	Understanding
C126.2	Summarize the natural resources and their importance for the sustenance of life & need to conserve the natural resources	Understanding
C126.3	Demonstrate the values, threats, conservation practices to protect the biodiversity.	Applying
C126.4	Describe various attributes of the pollution and their impacts and measures to reduce pollution along with waste management practices.	Understanding
C126.5	Evaluate social issues both rural and urban environment and the possible means to combat the challenges, with help of environmental legislations of India	Evaluating
C126.6	Implement Environmental Impact Assessment, Green campus, business, & politics in their daily life	Applying


CO No.	Subject: English Communication Skills Lab-II	Taxonomy Level
After completing the course the student shall be able to		
C127.1	Explain the importance of body language.	Understanding
C 127.2	Summarize the skill of general English through dialogue.	Understanding
C 127.3	Develop short presentations on simple topics.	Applying
C 127.4	Summarize training offered to students through Group Discussion.	Analyzing
C 127.5	Describe the stand of interview skills through that students will successes.	Remembering
C 127.6	Explain the knowledge ability to communicate the needs and requirements of Debate.	Understanding

CO No.	Subject: Engineering Chemistry Laboratory	Taxonomy Level
After completing the course the student shall be able to		
C128.1	Describe the experimental skills to design new experiments in engineering.	Understanding
C 128.2	Explain tge different types of titrations and acquire skills in instrumentation.	Understanding
C 128.3	Determine hardness of various water samples.	Evaluating
C 128.4	Determine tge no of free ions and charges in a mixture of acids using conductivity meter .	Evaluating
C 128.5	Calculate the potential between reference electrode and un known solution by using potentiometer	Understanding



CO No.	Subject: Computer Programming Lab	Taxonomy Level
After completing the course the student shall be able to		
C129.1	Explain the basic terminology of C programming development environment	Understanding
C129.2	Discuss the design of Algorithms, writing, compiling, debugging and executing Programs.	Understanding
C129.3	Analyzing the complexity of problems and modular programming	Analyzing
C129.4	Understand and apply the in-built and user defined functions for solving problems.	Applying
C129.5	Understand and apply the pointers and memory allocations techniques for solving Problems.	Applying
C129.6	Implement different data structures, and create, update data files	Applying

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RISE KRISHNA SAI PRAKASAM GROUP OF INSTITUTIONS
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

AY: 2018-19

SEM:I

YEAR: II

COURSE OUTCOMES

CO No	Subject: Electronic Devices and Circuits	Taxonomy
Student should be able to		
C211.1	Explain the basic concepts of semiconductor physics.	Understanding
C211.2	Explain the formation of p-n junction and how it can be used as a p-n	Understanding
C211.3	Describe the construction, working principle of rectifiers with and without	Applying
C211.4	Explain the construction, principle of operation of transistors, BJT and	Understanding
C211.5	Make use of transistor biasing, various biasing techniques for BJT and FET	Applying
C211.6	Perform the analysis of small signal low frequency transistor amplifier	Analyzing

CO No	Subject: Switching Theory & Logic Design	Taxonomy
Student should be able to		
C212.1	Explain the basics of different number systems, logic operations and codes	Understanding
C212.2	Simplify the Boolean functions using Minimization techniques	Analyzing
C212.3	Design different combinational circuits	Evaluating
C212.4	Develop a PLD for the given Boolean functions	Applying
C212.5	Design different sequential circuits	Evaluating
C212.6	Design FSM's by using sequential circuits	Analyzing

CO No	Subject: Signals & Systems	Taxonomy
Student should be able to		
C213.1	Characterize the signals and systems and principles of vector spaces, Concept of	Understanding
C213.2	Analyze the continuous-time signals and continuous-time systems using Fourier	Analyzing
C213.3	Apply sampling theorem to convert continuous-time signals to discrete-time signal	Applying
C213.4	Understand the relationships among the various representations of LTI systems	Understanding
C213.5	Understand the Concepts of convolution, correlation, Energy and Power density and	Understanding
C213.6	Apply z-transform to analyze discrete-time signals and systems.	Applying

CO No	Subject: Network Analysis	Taxonomy
Student should be able to		
C214.1	Student able to explain the basic network elements and analyze the performance of periodic waveforms	Analyzing
C214.2	Student Will analyze the RLC circuits behavior in detailed	Analyzing
C214.3	Student able to analyze the coupled circuit and resonance	Analyzing
C214.4	Student will apply theorems for electrical circuits both ac and dc	Applying
C214.5	Student Gain the knowledge in characteristics of two port network parameters	Evaluating
C214.6	Student will analyze the filter design concepts in real world applications.	Analyzing



CO No	Subject: Random variables & Stochastic Process	Taxonomy
Student should be able to		
C215.1	Determine the random variables and solve simple probabilistic problems	Understanding
C215.2	Illustrates the different types of moments and transformations of random variables	Understanding
C215.3	Applying distributions, density and moments theory for multiple random variables	Applying
C215.4	Determine and explain the random process and stationary levels	Understanding
C215.5	Evaluating the different types of correlations and their spectral and temporal	Evaluating
C215.6	Analyze the LTI systems with random inputs and analyze these systems in the	Analyzing

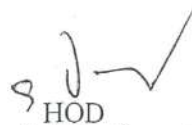
CO No	Subject: Managerial Economics & Financial Analysis	Taxonomy
Student should be able to		
C216.1	Determine the objectives, nature, scope, role & responsibilities of a manager	Understanding
C216.2	Predict the demand for a product or product mix of a company, Examine optimum	Understanding
C216.3	Recognize Types of Business Organization and Business Cycles	Understanding
C216.4	Explore the knowledge in competitive markets, pricing strategies, forms of business	Applying
C216.5	Prepare the accounting concepts like Journal, Ledger, Trial Balance, financial	Applying
C216.6	Explain the significance of capital in business and knowing the steps, methods,	Understanding

CO No	Subject: EDC Lab	Taxonomy
Student should be able to		
C217.1	Identifying of electronic components and electronic equipment	Remember
C217.2	Analyzing characteristics of different diodes and transistors	Understanding
C217.3	Describe application of diode	Applying
C217.4	Analyze the different transmitters and receivers techniques	Understanding
C217.5	Understanding the use of RPS and CRT	Understanding
C217.6	Analyzing experimental data and preparing a lab record	Applying

CO No	Subject: N&ET Lab	Taxonomy
Student should be able to		
C218.1	Analyze RLC Circuits And Understand Resonant Frequency And Q-Factor.	Analyzing
C218.2	Determine the Z,Y-parameters	Evaluating
C218.3	Apply network theorems to analyze the electrical network.	Applying
C218.4	Determine the performance of dc shunt machine.	Evaluating
C218.5	Determine the performance of 1-phase transformer.	Evaluating
C218.6	Perform tests on 3-phase induction motor and alternator to determine their performance	Evaluating


COORDINATOR




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RISE KRISHNA SAI PRAKASAM GROUP OF INSTITUTIONS
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

AY: 2018-19

SEM:II

YEAR: II

COURSE OUTCOMES

CO No	Subject: Electronic Circuit Analysis	Taxonomy level
Student should be able to		
C221.1	Design of small signal high frequency transistor amplifier using BJT and FET.	Analyzing
C221.2	Design of multi stage amplifiers using BJT & FET	Analyzing
C221.3	Apply the concept of feedback to various types of amplifier circuits	Applying
C221.4	Apply the principle of oscillations and to different types of oscillators	Applying
C221.5	Analyse different power amplifiers and their analysis with performance comparison.	Analyzing
C221.6	Analyse different tuned amplifiers based on their performance	Analyzing

CO No	Subject: Control Systems	Taxonomy level
Student should be able to		
C222.1	Describe concepts of feedback and its advantages to various control systems	Understanding
C222.2	Determine the transfer function for a given system using block diagram and signal flow graph methods	Evaluating
C222.3	Analyse the transient and steady state response of control systems.	Analyzing
C222.4	Calculate the stability of a system.	Applying
C222.5	Design compensation networks	Applying
C222.6	Analyze of state variables and state models	Analyzing

CO No	Subject: Electromagnetic Waves and Transmission Lines	Taxonomy level
Student should be able to		
C223.1	Determine electric & magnetic fields intensity using various laws and identify the applications of electro magneto static fields	Evaluating
C223.2	Apply the Maxwell equations to analyze the time varying behavior of EM waves	Applying
C223.3	Analyze the wave propagation in various media and determine the characteristics of uniform plane wave	Analyzing
C223.4	Analyze reflection and refraction of plane waves in conductor's and dielectrics	Analyzing
C223.5	Determine the primary and secondary constants of transmission lines under different conditions	Evaluating
C223.6	Determine reflection coefficient, VSWR of a transmission line, theoretically using smith chart	Evaluating

CO No	Subject: Analog Communications	Taxonomy level
Student should be able to		
C224.1	Understand the fundamentals of analog communication systems.	Understanding
C224.2	Demonstrate various amplitude modulation and demodulation schemes and compare their spectral characteristics	Understanding
C224.3	Understand the power and bandwidth requirements of FM and compare with AM counterparts	Understanding



C22.4.4	Analyze various functional blocks of transmitters and receivers	Analyzing
C22.4.5	Analyze noise characteristics of various analog modulation schemes	Analyzing
C22.4.6	Understand the various pulse analog modulation schemes and demonstrate FDM & TDM techniques.	Understanding

CO No	Subject: Pulse and Digital Circuits	Taxonomy level
Student should be able to		
C22.5.1	Design linear wave shaping circuits.	Analyzing
C22.5.2	Design non-linear wave shaping circuits.	Analyzing
C22.5.3	Classification of switching circuits and logic families.	Understanding
	Analysis of different multi vibrators.	Applying
C22.5.5	Analysis of different synchronization frequency division circuits and sampling gates.	Applying
C22.5.6	Analysis of different Time base Generators	Applying

CO	Subject: Management Science	Taxonomy level
Student should be able to		
C226.1	equip with the concept and practical issues relating to Strategic Management	Remembering.
C226.2	Explain the need and importance of Business Ethics and Communication Skills in	Understanding
C226.3	equip with the contemporary management practices, i.e., MIS, MRP, JIT and ERP etc.,	Remembering.
C226.4	equip with the concept and practical issues relating to Strategic Management	Remembering.
C226.5	Explain the need and importance of Business Ethics and Communication Skills in	Understanding
C226.6	Able to equip with the contemporary management practices, i.e., MIS, MRP, JIT and	Remembering.

CO No	Subject: ECA Lab	Taxonomy level
Student should be able to		
C227.1	Design small signal single stage amplifiers and then observe it's frequency response.	Analyzing
C227.2	Design multi stage amplifiers and then observe it's frequency response.	Analyzing
C227.3	Design feedback amplifiers and then observe it's frequency response.	Analyzing
C227.4	Design an oscillator circuit and calculate it's output frequency.	Analyzing
C227.5	Design power amplifiers and then observe it's frequency response.	Analyzing
C227.6	Design tuned amplifiers and then observe it's frequency response.	Analyzing

CO No	Subject: Analog Communications Lab	Taxonomy level
Student should be able to		
C228.1	Analyze the modulation and demodulation techniques of conventional AM scheme.	Analyzing
C228.2	Analyze the modulation and demodulation techniques of conventional DSB & SSB	Analyzing
C228.3	Analyze the modulation and demodulation techniques of conventional angle	Analyzing
C228.4	Analyze the different transmitters & receivers techniques.	Analyzing
C228.5	Analyze the circuit diagrams of PLL & AGC.	Analyzing
C228.6	Analyze the different digital modulation and de-modulation techniques.	Analyzing

COORDINATOR



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RISE KRISHNA SAI PRAKASAM GROUP OF INSTITUTIONS
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

AY: 2018-19

SEM:I

YEAR: III

COURSE OUTCOMES

CO No.	Subject: Computer Architecture and Organization	Taxonomy
After going through this course the student will be able to		
C311.1	Demonstrate evolution of the computer and Explain the performance of the computer	Understanding
C311.2	Explain Instruction formats and decode the register transfer notations and assembly	Understanding
C311.3	Apply different types of addressing modes to address an operand of Arithmetic and	Applying
C311.4	Define the different I/O modules and their interfacing	Remembering
C311.5	Classify the different types of memory systems to understand the memory	Understanding
C311.6	Analyze hardwired and micro programmed control to design control unit.	Analyzing

CO No	Subject: Linear I C Applications	Taxonomy
Student should be able to		
C312.1	Analyze the characteristics of differential amplifiers	Analyzing
C312.2	Analyze the DC&AC characteristics of OP-Amp	Analyzing
C312.3	Design linear and nonlinear applications of op-amps	Creating
C312.4	Design Active filters using opamps	Creating
C312.5	Implement the applications of special IC's like Timer and PLL	Applying
C312.6	Analyze the conversion techniques of DAC and ADC using op-amps	Analyzing

CO No	Subject: Digital I C Applications	TAXONOMY
Student should be able to		
C313.1	Explain the concepts of logic families used in ics	Understanding
C313.2	Develop digital logic with vhdl simulation and synthesis	Applying
C313.3	Develop vhdl applications by using different statements	Applying
C313.4	Design the combinational circuits using vhdl for real time applications	Applying
C313.5	Design the sequential circuits using vhdl for real time applications	Applying
C313.6	Design state diagrams state tables state reduction with the help of mealay and	Applying

CO No	Subject: Digital Communications	TAXONOMY
Student should be able to		
C314.1	Analyse the performance of dc system using pulse digital modulation techniques	Analysis
C314.2	Analyse digital transmission method s and detection techniques for base band transmisson	Analysis
C314.3	Evaluate the error performance of digital modulation schemes	Evaluation
C314.4	Analyse the information theory in communication systems	Analysis
C314.5	Apply source coding technique on transmission mediam in digital communicaton system	Application
C314.6	Apply the channel coding techniques in digital communication system in order to provide	Application



CO No	Subject: Antenna and Wave Propagation	TAXONOMY
Student should be able to		
C3 15.1	Describe all the basic parameters of an antenna	Understanding
C3 15.2	Analyze the parameters of linear wire antennas and explain the antenna theorems	Analyzing
C3 15.3	Design and analyze various antenna arrays	Creating
C3 15.4	Explain the operation of non resonant antennas	Understanding
C3 15.5	Describe about VHF, UHF and Microwave antennas and its measurements.	Understanding
C3 15.6	Explain the characteristics of radio wave propagation	Understanding

CO No	Subject: PDC Lab	TAXONOMY
Student should be able to		
C3 16.1	Design linear and non linear wave shaping circuits	Analyzing
C3 16.2	Design transistor as a switch	Analyzing
C3 16.3	Examine the functionality of combinational and sequential logic circuits	Analyzing
C3 16.4	Examine the performance of sampling gates	Analyzing
C3 16.5	Design astable, bistable and monostable multivibrators using transistors	Applying
C3 16.6	Design UJT relaxation oscillator and bootstrap sweep circuit	Applying

CO No	Subject: LICA Lab	TAXONOMY
Student should be able to		
C31 7.1	Design and construct adder, subtractor, comparator, integrator and differentiator using op-amp	Analyzing
C31 7.2	Design and construct different types of active filters	Applying
C31 7.3	Design and construct different oscillator circuits and function generator using IC 741	Applying
C31 7.4	Design and construct different multivibrators using IC 555 timer	Understanding
C31 7.5	Use IC 565 for PLL, IC 566 for VCO, IC 723 for voltage regulator	Understanding
C31 7.6	Design 4-bit DAC using op-amp	Applying

CO No	Subject: DICA Lab	TAXONOMY
Student should be able to		
C318.1	Implement & Design Logic Gates By Using Vhdl Or Hardware	Analyzing
C318.2	Implement & Design 3 To 8 Decoder -74138 By Using Vhdl or Hardware.	Analyzing
C318.3	Implement & Design 8 X 1 Multiplexer By Using Vhdl or Hardware	Analyzing
C318.4	Implement & Design D-Flipflop By Using Vhdl or Hardware	Analyzing
C318.5	Implement & Design Shift Register By Using Vhdl or Hardware	Analyzing
C318.6	Implement & Design ALU By Using Vhdl Or Hardware	Analyzing

COORDINATOR



Head of HOD Department
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 RISE Krishna Sai Prakasam Group of Institutions, VALLURU- 523 214



RISE KRISHNA SAI PRAKASAM GROUP OF INSTITUTIONS
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

AY: 2018-19

SEM:II

YEAR: III

COURSE OUTCOMES

CO No	Subject: Micro Processors & Micro Controllers	Taxonomy level
Student should be able to		
C32.1.1	Analyze the basic architecture, various activities and formats of 8086 microprocessor.	Analyzing
C32.1.2	Implement programs with an assembler for 8086 Microprocessor based systems on real time applications using low-level language like ALP.	Applying
C32.1.3	Apply the interfacing concepts of 8086 microprocessor with different peripherals.	Applying
C32.1.4	Analyze the features and architectural differences of advanced microprocessors like	Analyzing
C32.1.5	Analyze the features, programming tools and assembly language programming of 8051	Analyzing
C32.1.6	Discuss the characteristics and instruction set of PIC microcontrollers	Creating

CO No	Subject: Micro Wave Engineering	Taxonomy level
Student should be able to		
C322.1	Evaluate the Expression for fields in TE and TM modes in Rectangular waveguides.	Evaluating
C322.2	Evaluate the Expression for fields in TE and TM modes Circular waveguides,	Evaluating
C322.3	Understand the operation of various types of O-type microwave tubes.	Understanding
C322.4	Understand the operation of various types HELIX TWTS, M-type tubes.	Understanding
C322.5	Develop the S-Matrix of Microwave components.	Evaluating
C322.6	Describe about microwave solid state devices their classification, operation and	Understanding

CO No	Subject: VLSI Design	Taxonomy level
Student should be able to		
C323.1	Describe the IC Technologies and various MOS fabrication techniques	Understanding
C323.2	Design N-MOS, P-MOS & C-MOS stick and layout diagrams with various techniques.	Creating
C323.3	Measure the various types of sheet resistance concept applied to MOS transistor.	Evaluating
C323.4	Describe the chip inputs, outputs and its testability	Understanding
C323.5	Describe FPGA design	Understanding
C323.6	Describe Low Power VLSI Design	Understanding

CO No	Subject: Digital Signal Processing	Taxonomy level
Student should be able to		
C324.1	Examine discrete-time signals and systems, linear constant coefficient difference equation and frequency domain representation.	Analyzing
C324.2	Analyze Discrete Fourier Series, Discrete Fourier Transform and Fast Fourier Transform algorithms	Analyzing



C3243	Design structures for digital filters and solve difference equations using Z-Transforms.	Evaluating
C3244	Design digital IIR filter using analog filter and digital FIR filter using windowing techniques.	Evaluating
C3245	Distinguish Decimation and interpolation for Multi-rate signal processing.	Analyzing
C3246	Describe DSP processors, memory architecture for DSP, addressing modes and registers	Understanding

CO No	Subject: Bio-Medical Engineering	Taxonomy level
Student should be able to		
C325.1	Expalijn the concepts of bio medical potentials	understanding
C325.2	Classify the different types of electrodes and transducers	understanding
C325.3	Analysis about cardiovascular system and respiratory system	Analyzing
C325.4	Explain about patient care monitoring therapeutic devices and prosthetic devices	Evaluating
C325.5	Illustate diagnostic techniques and bio telemetry	understanding
C325.6	Demonstrate monitors and recorders and shocking Hazards	understanding

CO No	Subject: MPMC Lab	Taxonomy level
Student should be able to		
C326.1	Understand the concepts on hardware and software/programming of a microprocessor.	Understanding
C326.2	Apply assembly language programming skills for simple airthmatic &logical calculations.	Applying
C326.3	Apply assembly language programming skills for complex calculations	Applying
C326.4	Design the interfacing of peripherals with 8086 microprocessor.	Creating
C326.5	Understand the concepts on hardware and software programming of microcontroller 8051	Understanding
C326.6	Design the circuit for interfacing of peripherals with 8051 microcontroller	Creating

CO No	Subject: VLSI Lab	Taxonomy level
Student should be able to		
C327.1	Design and implementation of logic gates	Creating
C327.2	Design and implementation of full adder and full subtractor	Creating
C327.3	Design and implementation of latches	Creating
C327.4	Design and implementation of static RAM cell and counter	Creating
C327.5	Design and implementation of combinational circuits	Creating



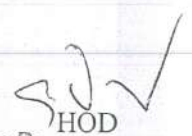
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C327.6	Design and implementation of digital to analog converter	Creating
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CO No	Subject: DC Lab	Taxonomy level
Student should be able to		
C328.1	Analyze the pulse digital modulation techniques	Analyzing
C328.2	Illustrate modulation, demodulation, noise handling, data conversion and multiplexing in pass band transmission.	applying
C328.3	Analyze need of compression and expansion in digital communication	Analysis
C328.4	Apply the various coding techniques on transmission medium in digital communication	applying

CO No	Subject: IPR & Patents	Taxonomy level
Student should be able to		
C329.1	Define different Intellectual Properties rights and agencies for registration.	Remembering
C329.2	List out the formalities of copyright registration	Remembering
C329.3	Outline the process of patent for the protection of software and innovations.	Understanding
C329.4	Classify dilution of ownership to protect the trademark.	Understanding
C329.5	Define the trade secret laws for employees confidentiality	Remembering
C329.6	Illustrate Cybercrime with example and how to secure data.	Understanding


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RISE KRISHNA SAI PRAKASAM GROUP OF INSTITUTIONS
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

AY: 2018-19

SEM:I

YEAR: IV

COURSE OUTCOMES

CO No	Subject: VLSI Design	TAXONOMY
Student should be able to		
C411.1	Describe the IC Technologies and various MOS fabrication techniques	Understanding
C411.2	Design N-MOS, P-MOS & C-MOS stick and layout diagrams with various techniques.	Create
C411.3	Measure the various types of sheet resistance concept applied to MOS transistor.	Evaluate
C411.4	Describe the subsystem design processes	Understanding
C411.5	Describe the concepts of VLSI Design issues.	Understanding
C411.6	Develop the FPGA architecture and its design process.	create

CO No	Subject: Computer Networks	TAXONOMY
Student should be able to		
C412.1	Illustrate the different network models with examples	Analyzing
C412.2	Evaluate the performance of different guided and unguided media	Evaluate
C412.3	Explain the concept of ALOHA,MAC	Create
C412.4	Analyze the different types of routing algorithms	Create
C412.5	Differentiate the concept of TCP and UDP protocols	Create
C412.6	Illustrate the different network models with examples	Analyzing

CO No	Subject: Digital Image Processing	TAXONOMY
Student should be able to		
C413.1	Apply transform techniques on images.	Applying
C413.2	Analyze spatial and frequency domain filtering on images.	Analyzing
C413.3	Apply image restoration operations on images.	Applying
C413.4	Analyze color conversions on images and code images to achieve good compression.	Analyzing
C413.5	Develop coding techniques for image compression and wavelet based image	Applying
C413.6	Develop morphological operations and segmentation techniques on images.	Analyzing

CO No	Subject: Computer Architecture & Organization	TAXONOMY
Student should be able to		
C414.1	Demonstrate the designing of arithmetic and logic unit of CPU.	Understanding
C414.2	Explain the Instruction formats, instruction cycle and stack organization.	Understanding
C414.3	Apply hardwired and micro programmed control to design control unit.	Applying
C414.4	Classify the different types of memory and to understand the memory organization in CPU	Understanding
C414.5	Define the different I/O modules and their interfacing	Remembering
C414.6	Analyze and Design pipelined control units	Analyzing



CO No	Subject: Radar Systems	TAXONOMY
Student should be able to		
C41 5.1	Explain the radar range equation and performance characteristics.	Understanding
C41 5.2	Analyze the operation and applications of CW and FMCW radars.	Analyzing
C41 5.3	Analyze the operation of MTI and Pulse Doppler Radars	Analyzing
C41 5.4	Analyze the concept of different Radar tracking methods.	Analyzing
C41 5.5	Derive the characteristics of a matched filter and distinguish different phased array antennas	Applying
C41 5.6	Distinguish different types of displays, duplexers and antennas used in radar system.	Analyzing


CO No	Subject: Optical Communication	TAXONOMY
Student should be able to		
C41 6.1	Analyze the light propagation mechanism in a fiber and distinguish various types of fibers.	Analyzing
C41 6.2	Choose fiber materials and estimates the attenuation and dispersion in an optical fiber	Remembering
C41 6.3	Connect optical fibers and analyze the fiber alignment and joint loss	Analyzing
C41 6.4	Describe how different types of optical sources and photo detectors are used for the	Application
C41 6.5	Determines the power coupling efficiency and analyzes the Digital receiver Performance	Evaluating
C41 6.6	Choose components to design an optical system and measures attenuation and dispersion in a fiber.	Remembering

CO No	Subject: VLSI Lab	TAXONOMY
Student should be able to		
C417.1	Design and implementation of logic gates	Creating
C417.2	Design and implementation of combinational circuits	Creating
C417.3	Design and implementation of lathes	Creating
C417.4	Design and implementation of RAM cell and differential amplifier	Creating
C417.5	Design and implementation of counter	Creating
C417.6	Design and implementation of oscillator	Creating

CO No	Subject: MWE Lab	TAXONOMY
Student should be able to		
C418.1	Describe the Basic microwave bench set up	Understanding
C418.2	Observe the characteristics of Reflex Klystron & Gunn diode	Analyzing
C418.3	Calculate VSWR , wavelength, impedance, frequency of waveguide	Evaluating
C418.4	Measure the scattering parameters of microwave devices.	Evaluating
C418.5	Measure the losses in fibers and NA	Evaluating
C418.6	Observe VI characteristic of with optical sources	Analyzing


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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

AY: 2018-19

SEM:II

YEAR: IV

COURSE OUTCOMES

CO No	Subject: Cellular Mobile Communication	Taxonomy level
Student should be able to		
C421.1	Identify the limitations of conventional mobile telephone systems and describe the basic concepts of cellular systems	Analyzing
C421.2	Analyze different interference effects in cellular mobile radio systems	Evaluating
C421.3	Analyze cell site and mobile antennas and their patterns	Evaluating
C421.4	Distinguish frequency management and channel assignment strategies	Applying
C421.5	Differentiate the Concepts of Handoff, cell splitting techniques	Analyzing
C421.6	Analyze various digital cellular networks.	Understanding

CO No	Subject: Electronic Measurements and Instrumentation	Taxonomy level
Student should be able to		
C422.1	Understand a system, Component or process to meet desired needs in electrical engineering.	Understanding
C422.2	Analyze different signal generators and analyzers	Analyzing
C422.3	Understand the design of oscilloscopes for different applications	Understanding
C422.4	Ability to balance Bridges to find unknown values.	Analyzing
C422.5	Design different transducers for measurement of different parameters.	Creating
C422.6	Design and measure strain, displacement, Velocity, Angular Velocity, temperature, Pressure, Vacuum, and Flow.	Creating

CO No	Subject: Embedded systems	Taxonomy level
Student should be able to		
C423.1	Understand the basic concepts and applications of embedded systems.	Understanding
C423.2	Distinguish all communication devices in embedded system, other peripheral device.	Analyzing
C423.3	Analyze embedded firmware design approaches and development languages.	Analyzing
C423.4	Analyze real time operating systems with examples of Task Communication, Synchronization	Analyzing
C423.5	Understand the embedded software development tools.	Understanding
C423.6	Design, implement and test an embedded system.	Creating



Handwritten signature

C423.3	Developing various satellite link design	Applying
C423.4	Designing of satellite links and usage of multiple access techniques	Applying
C423.5	Understanding the concepts Earth station technology, Low earth orbit and GEO-Stationary satellite systems	Applying
C423.6	Identifying the Navigation systems and GPS standards	Understanding

CO No	Subject: Wireless Sensors and Networks	Taxonomy level
Student should be able to		
C424.1	Apply knowledge of wireless sensor networks to various applications	Applying
C424.2	Design and implement the wireless sensor networks	creating
C424.3	Conduct performance analysis of wireless sensor networks	evaluating
C424.4	learn transport layer protocols for sensor networks and design requirements	understanding
C424.5	Explain the sensor management, sensor networks middle ware	understanding
C424.6	formulate and solve the problems creatively in the areas of wireless sensor networks	creating

Project & Seminar		Taxonomy level
Student should be able to		
C426.1	Envisaging applications for societal needs	Evaluating
C426.2	Develops skills for analysis and synthesis of practical systems	Creating
C426.3	Acquire the use of new tools effectively and creatively	Creating
C426.4	Work in team to carry out analysis and cost-effective, environmental friendly designs of engineering systems	Creating
C426.5	Write Technical / Project reports and oral presentation of the work done to an audience	Evaluating
C426.6	Demonstrate a product developed	Creating

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