KLS Vishwanathrao Deshpande Institute of Technology
(Approved by AICTE, New Delhi. Affiliated to VTU, Belagavi)
(Recognized Under Section 2(f) by UGC, New Delhi)
Udyog Vidya Nagar, Haliyal – 581329, Dist.: Uttara Kannada
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

COs STATEMENTS FOR THE SCHEME 2018 (BATCH:2018 – 2022)

Sl. No.	Sub Name	COs	CO Statement
		1st SEMESTER	
1	Calculus and Linear Algebra	18MAT11.1	Apply the knowledge of calculus to solve problems related to polar curves and its applications in determining the bentness of a curve
		18MAT11.2	Learn the notion of partial differentiation to calculate rates of change of multivariate functions and solve problems related to composite functions and Jacobians
		18MAT11.3	Apply the concept of change of order of integration and variables to evaluate multiple integrals and their usage in computing the area and volumes
		18MAT11.4	Solve first order linear/nonlinear differential equations analytically using standard methods
		18MAT11.5	Make use of Matrix theory for solving system of linear equations and compute Eigenvalues & Eigenvectors required for matrix diagonalization process
2	Engineering Physics	18PHY12.1	Learn and understand various types of oscillations and their implications, Recognize the significance of shock waves and its applications in various fields
		18PHY12.2	To get acquainted with the elastic properties of materials by understanding the definitions of elasticity, stress, strain, modulus of rigidity, Young's modulus, bulk modulus and elastic limit.
		18PHY12.3	To realize the interrelation between time varying electric field and magnetic field, properties of electromagnetic (EM) waves, Maxwell's equations and their role in optical fiber communication.
		18PHY12.4	Gain knowledge of the intricacies of matter and energy, which is essential to explore the role of subatomic particles in understanding properties of matter at macro, micro and nano level using the principles of quantum mechanics and to understand the physics of lasers, various types of lasers and to appreciate their role in modern technology.
		18PHY12.5	Learn the niceties of technologically important material such as conductor, semiconductor and dielectrics, their potential properties in understanding there use in engineering applications.
3	Basic Electrical Engineering	18ELE13.1	Students will be able to comprehend the basic concept of AC and DC circuit
		18ELE13.2	Explain the working principle and construction of AC and DC machines
		18ELE13.3	Explain the working principle and construction of transformer
		18ELE13.4	Understand the electrical wiring concepts, earthing, domestic protection devices and electric shock
4	Elements of Civil Engineering & Mechanics	18CIV14.1	Mention the applications of various fields of Civil Engineering
		18CIV14.2	Compute the resultant of given force system subjected to various loads
		18CIV14.3	Comprehend the action of Forces, Moments and other loads on systems of rigid bodies and compute the reactive forces that develop as a result of the external loads.
		18CIV14.4	Locate the Centroid and compute the Moment of Inertia of regular and built-up sections
		18CIV14.5	Express the relationship between the motion of bodies and analyze the bodies in motion.
5	Engineering Graphics	18EGDL15.1	Prepare engineering drawings as per BIS conventions mentioned in the relevant codes
		18EGDL15.2	Produce computer generated drawings using CAD software.
		18EGDL15.3	Use the knowledge of orthographic projections to represent engineering information / concepts and present the same in the form of drawings

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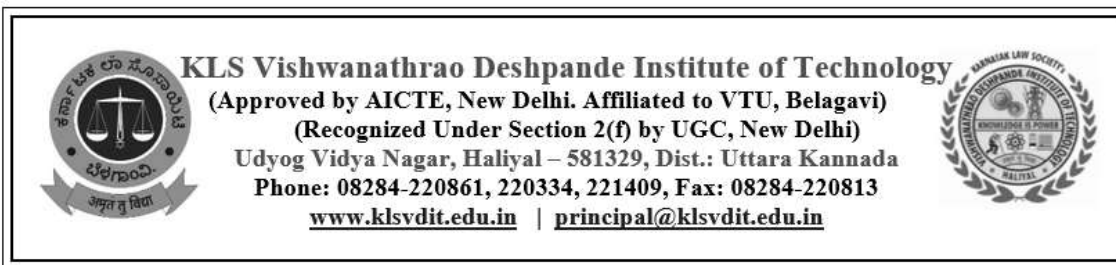|			
		18EGDL15.4	Develop isometric drawings of simple objects reading the orthographic projections of those objects.
		18EGDL15.5	Convert pictorial and isometric views of simple objects to orthographic views.
6	Engineering Physics Laboratory	18PHYL16.1	To recognize the importance of light by exploring its interaction with matter and in realizing its characteristic properties
		18PHYL16.2	Understanding of mechanical properties of the material by the application of stress.
		18PHYL16.3	Appreciating the significance of elementary electric circuits in the functioning of various electric /electronic devices and gaining understanding of physics of the materials.
		18PHYL16.4	Design and implementation of electronic circuits to gain better understanding of physics of semiconductor devices.
		18PHYL16.5	Appreciating the role of Quantum mechanics in exploring the electrical properties of the materials.
7	Basic Electrical Engineering Laboratory	18ELE17.1	Determine the current, power drawn and comparing power factor of the different lamps
		18ELE17.2	Determine impedance of an electrical circuit and power consumed in a 3 phase load.
		18ELE17.3	Determine the earth resistance and understand the operation of two way and three way control of lamp.
		18ELE17.4	Understand the basic functioning of domestic appliances like fuse, MCB,UPS
		2ND SEMESTER	
8	Advanced Calculus and Numerical Methods	18MAT21.1	To solve first order linear/nonlinear differential equations analytically using standard methods
		18MAT21.2	Explain various physical models through higher order differential equations and solve such linear ordinary differential equations
		18MAT21.3	Understand a variety of partial differential equations and solution by exact methods/method of separation of variables
		18MAT21.4	Describe the applications of infinite series and obtain series solution of ordinary differential equations
		18MAT21.5	Apply the knowledge of numerical methods in the models of various physical and engineering phenomena
9	Engineering Chemistry	18CHE22.1	Knowledge on the use of free energy in equilibria, rationalize bulk properties and processes using thermodynamic considerations, electrochemical energy systems.
		18CHE22.2	Knowledge on the causes and effects of corrosion of metals and control of corrosion. Modification of the surface properties of metals to develop resistance to corrosion, wear, tear, impact, etc. by electroplating and electroless plating.
		18CHE22.3	Knowledge on the importance of energy conservation in the context of energy crisis, fuel properties and importance of solar energy as sustainable source and PV cells for solar energy conversion.
		18CHE22.4	Knowledge on the environmental pollution, waste management and water chemistry.
		18CHE22.5	Knowledge on the different techniques of instrumental methods of analysis. Fundamental properties of nanomaterials.
10	C Programming for Problem Solving	18CPS23.1	Illustrate simple algorithms from the different domains such as mathematics, physics, etc.
		18CPS23.2	Construct a programming solution to the given problem using C.
		18CPS23.3	Identify and correct the syntax and logical errors in C programs.
		18CPS23.4	Modularize the given problem using functions and structures.

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11	Basic Electronics	18ELN24.1	Outline the operation of semiconductor diodes, and its applications like rectifiers, photocouplers, and fixed voltage IC regulator and apply the concepts to solve the numerical of rectifiers
		18ELN24.2	Describe the general operating principles of JFETS, MOSFETS, SCR, by applying their concepts to various applications.
		18ELN24.3	List the characteristics of the opamp and describe the operations of simple opamp circuits and apply the same concepts to solve the numerical
		18ELN24.4	By outlining the characteristics of feedback amplifiers explain different types of feedback along with the working of bjt amplifiers, and apply the concept of barkhaunsen's criteria to obtain the oscillations.
		18ELN24.5	Explain the different number system and their conversions and construct simple combinational and sequential logic circuits using flip flops.
		18ELN24.6	Describe the basic principle of operation of communication system and mobile phones.
12	Elements of Mechanical Engineering	18ME25.1	learn the fundamental concepts of energy, it's sources and conversion
		18ME25.2	comprehend the basic concepts of thermodynamics
		18ME25.3	understand the concepts of boilers, turbines,pumps,internal combustion engine and refrigeration
		18ME25.4	distinguish different metal joining techniques and power transmission
		18ME25.5	enumerate the knowledge of working with conventional machine tools, their specifications and advanced manufacturing processes.
13	Engineering Chemistry Laboratory	18CHEL26.1	Students will have the knowledge in handling different types of instruments for analysis of materials using small quantities of materials involved for quick and accurate results
		18CHEL26.2	Students will have the knowledge in carrying out different types of titrations for estimation of concerned in materials using comparatively more quantities of materials involved for good results
14	C Programming Laboratory	18CPL27.1	Write algorithms, flowcharts and program for simple programs.
		18CPL27.2	Correct syntax and logical errors to execute a program.
		18CPL27.3	Write iterative and wherever possible recursive programs.
		18CPL27.4	Demonstrate use of functions, arrays, strings, structures and pointers in problem solving.

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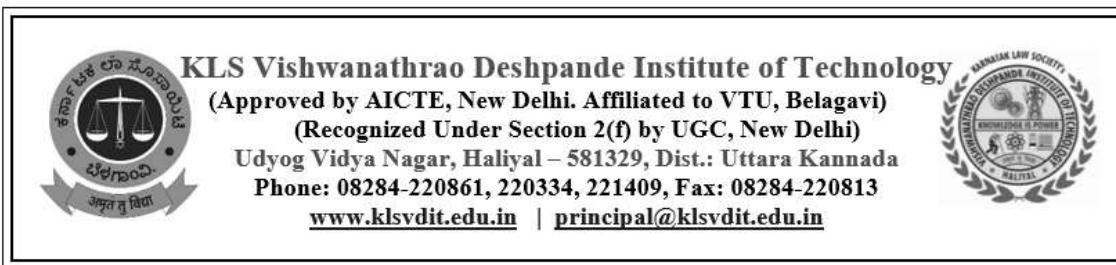
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\multicolumn{4}{c}{3RD SEMESTER}
Sl. No.	Sub Name	COs	CO Statement
15	Transform Calculus, Fourier series & Numerical Techniques	18MAT31.1	To understand the concept of Laplace transform and inverse Laplace transform and its properties.
		18MAT31.2	To understand the behaviour of periodic functions using Fourier series.
		18MAT31.3	To illustrate discrete/continuous functions using Fourier transform and Z transform.
		18MAT31.4	To determine the solution of ODE by using Numerical techniques
		18MAT31.5	To determine the extremals of functionals using calculus of variations.
16	Network Theory	18EC32.1	Discuss the various methods to analyze DC & AC circuit
		18EC32.2	Elaborate various theorems to simplify the complex circuits
		18EC32.3	Understand the transient behaviour of RC, RL & RLC circuits for AC & DC excitations
		18EC32.4	Apply the Laplace transform for solving transient and steady state response of circuit.
		18EC32.5	Apply the concepts of Z, Y, H, T parameter to evaluate various parameter for given network & provide mathematical model for the given system. Understand the concept of resonance
17	Electronic Devices	18EC33.1	Understand the basics of semiconductor physics and electronic devices.
		18EC33.2	Understand the P-N junction applications , the construction and working principles of optoelectronic devices
		18EC33.3	Describe the mathematical models BJTs along with the constructional details
		18EC33.4	Understand the construction and working principles of and FETs
		18EC33.5	Understand the fabrication process of semiconductor devices and CMOS process integration
18	Digital system Design	18EC34.1	Apply the principles of combinational logic circuits
		18EC34.2	Design and analysis of combinational logic circuits
		18EC34.3	Illustrate the working of one-bit digital storage devices and their relevant applications
		18EC34.4	Design and analysis of sequential circuits using flip-flops
		18EC34.5	Discuss the usage of various programmable and reconfigurable devices
19	Computer Organization & Architecture	18EC35.1	Understand the basic organization of a computer system and analyse the arithmetic operations
		18EC35.2	Explain different ways of accessing an input / output device including interrupts.
		18EC35.3	Illustrate the organization of different types of semiconductor and other secondary storage memories.
		18EC35.4	Illustrate simple processor organization based on hardwired control and micro programmed control.
20	Power Electronics & Instrumentation	18EC36.1	Build and test circuits using power electronic devices
		18EC36.2	Analyze and design controlled rectifier, DC to DC converters (choppers), DC to AC inverters and SMPS
		18EC36.3	Define instrument errors, and develop circuits and describe operation for multirange Ammeters, multirange voltmeters and Bridges
		18EC36.4	Understand the operation of Transducers, Instrumentation amplifiers and PLCs

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21	Electronic Devices and Instrumentation Laboratory	18ECL37.1	Understand and design various applications using PN Junction diode and Zener diode.
		18ECL37.2	Study the characteristics of different electronic devices
		18ECL37.3	Design and test simple electronic circuits as per the specifications using discrete electronic components.
		18ECL37.4	Familiarize with EDA software which can be used for electronic circuit simulation.
22	Digital System Design Laboratory	18ECL38.1	Demonstrate the truth table of various expressions and combinational circuits using logic gates.
		18ECL38.2	Design various combinational circuits such as adders, subtractors, comparators
		18ECL38.3	Construct flips-flops, counters and shift registers
		18ECL38.4	Simulate Serial adder and Binary Multiplier
4TH SEMESTER			
23	**Engineering Mathematics-IV**	18MAT41.1	To understand the concept of complex functions.
		18MAT41.2	To understand the concept of complex integration.
		18MAT41.3	To apply discrete and continuous probability distributions in analyzing the probability models.
		18MAT41.4	To make use of the correlation and regression concept to fit a suitable mathematical model for the statistical data.
		18MAT41.5	To construct the joint probability distributions and analyze samples by using various sampling techniques.
24	ANALOG CIRCUITS	18EC42.1	Identify the key parameters, connections and configurations in designing Bi-polar and Uni-polar transistors
		18EC42.2	Design and analyze BJT and FET amplifier circuits
		18EC42.3	Analyze amplifier circuits based on their feedback and different modes of operation
		18EC42.4	Discuss the functioning of linear ICs
		18EC42.5	Design of Linear IC based circuits
		18EC42.6	Develop applications to demonstrate fundamental principles of linear ICs
25	**Control System**	18EC43.1	Formulate mathematical models for Mechanical, Electrical and Electromechanical systems, and be able to derive analogous system
		18EC43.2	Apply Laplace transform to obtain transfer function of given system, simplify complex system using block diagram reduction rules & signal flow graph
		18EC43.3	Analyze the system performance parameter of first order and second order systems using time domain approach
		18EC43.4	Analyze system stability using time domain approach using Routh-Hurwitz criterion & root locus technique and frequency domain approach using bode plot & Nyquist Stability criterion
		18EC43.5	Formulate mathematical model using state space method for given electrical systems
26	ENGINEERING STATISTICS and LINEAR ALGEBRA	18EC44.1	Explain, Identify and associate Random Variables and Random Processes Communication events
		18EC44.2	Analyze and model the Random events in typical communication events to extract quantitative statistical parameters
		18EC44.3	Analyze and model typical signal sets in terms of a basis function set of Amplitude, phase and frequency
		18EC44.4	Demonstrate by way of simulation or emulation the ease of analysis employing basis functions, statistical representation and Eigen values

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27	SIGNALS & SYSTEMS	18EC45.1	Analyze mathematical description and representation of continuous and discrete time signals and systems
		18EC45.2	Develop input output relationship for linear time invariant (LTI) system and understand the convolution operator for continuous and discrete time system
		18EC45.3	Analyze and resolve the signals in frequency domain using Fourier series and Fourier transforms
		18EC45.4	Apply Z - transform for analysis of continuous-time and discrete-time signals and systems
28	MICROCONTROLLER	18EC46.1	understand the difference between microprocessor and microcontroller, familiarize the basic architecuture of 8051
		18EC46.2	program 8051 microcontroller using assembly language and C
		18EC46.3	understand the operation and use of in built timer/counter and serial port of 8051
		18EC46.4	understand the interrupt system of 8051 and interfacing of I/O devices to I/O ports
29	Microcontroller Lab	18ECL47.1	Write Assembly language programs in 8051 for solving simple problems that manipulate input data using different instructions of 8051.
		18ECL47.2	Interface different input and output devices to 8051 and control them using Assembly language programs
		18ECL47.3	Interface the serial devices to 8051 and do the serial transfer using C programming
30	ANALOG CIRCUITS LABORATORY	18ECL48.1	Design analog circuits using BJT/FETs and evaluate their performance characteristics.
		18ECL48.2	Design analog circuits using OPAMPs for different applications
		18ECL48.3	Simulate and analyze analog circuits that uses ICs for different electronic applications
31	TIME	18ES51.1	Understand the fundamental concepts of Management and Entrepreneurship
		18ES51.2	Describe the functions of Managers, Entrepreneurs and their social responsibilities
		18ES51.3	Understand the components in developing and set up business
		18ES51.4	Awareness about various sources of funding and institutions supporting entrepreneurs
32	Digital Signal Processing	18EC52.1	Determine response of LTI systems using time domain and DFT techniques.
		18EC52.2	Compute DFT of real and complex discrete time signals.
		18EC52.3	Computation of DFT using FFT algorithms and linear filtering approach.
		18EC52.4	Solve problems on digital filter design and realize using digital computations.
		18EC52.5	Understand the DSP processor architecture.
33	Principles of Communication Systems	18EC53.1	Analyze and compute performance of AM and FM modulation in the presence of noise at receiver
		18EC53.2	Multiplex digitally formatted signals at the Transmitter and Demultiplex the signals and reconstruct digitally formatted signals at the receiver
		18EC53.3	Analyze and compute performance of digital formatting processes with quantization noise
		18EC53.4	Design/Demonstrate the use of digital formatting in Multiplexer Vocoders and Video Transmission

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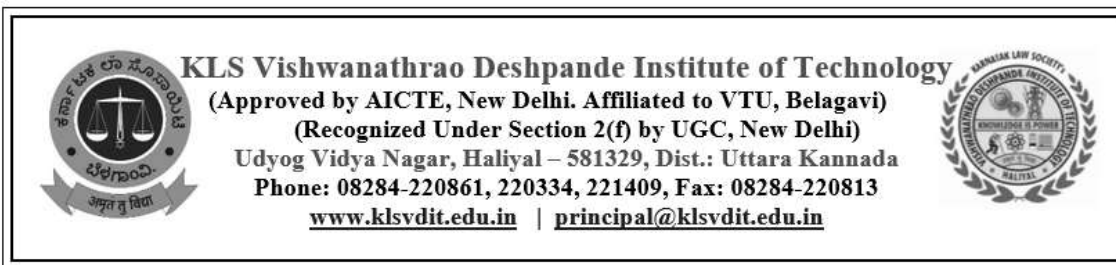Phone: 08284-220861, 220334, 221409, Fax: 08284-220813
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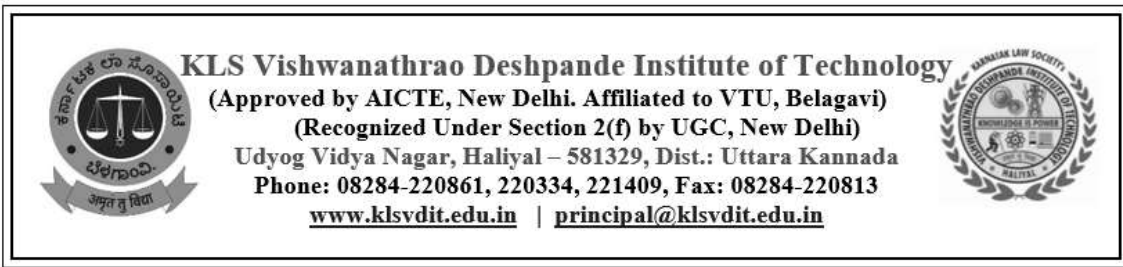|			
34	**Information Theory and Coding**	18EC54.1	Explain concept of Dependent & Independent Source, measure of information, Entropy, Rate of Information and Order of a source
		18EC54.2	Represent the information using Shannon Encoding, Shannon Fano, Prefix and Huffman Encoding Algorithms
		18EC54.3	Model the continuous and discrete communication channels using input, output and joint probabilities
		18EC54.4	Determine a codeword comprising of the check bits computed using Linear Block codes, cyclic codes & convolutional codes
		18EC54.5	Design the encoding and decoding circuits for Linear Block codes, cyclic codes, convolutional codes, BCH and Golay codes
35	**Electromagnetic Waves**	**18EC55.1**	Apply electrostatic laws and evaluate problems on electrostatic force, electric field due to point, linear, surface charge & volume charge densities.
		18EC55.2	Determine potential and energy due to point charge, Evaluate boundary value problem using Laplace equation and Apply Biot-Savart's and Ampere's laws for evaluating Magnetic field for different current configurations
		18EC55.3	Calculate magnetic force, potential energy and Magnetization with respect to magnetic materials and determine voltage induced in electric circuits using faraday's law.
		18EC55.4	Apply Maxwell's equations for time varying fields, EM waves in free space, conductors and Evaluate power associated with EM waves using Poynting theorem
36	**Verilog HDL**	**18EC56.1**	Differentiate between Verilog and VHDL descriptions.
		18EC56.2	Learn different Verilog HDL and VHDL constructs
		18EC56.3	Familiarize the gate and dataflow modelling in Verilog.
		18EC56.4	To infer knowledge of behavioural modelling in verilog.
		18EC56.5	To study VHDL modeling of digital circuits
37	**Digital Signal Processing Laboratory**	**18ECL57.1**	Understand the concepts of analog to digital conversion of signals and frequency domain sampling of signals.
		18ECL57.2	Modeling of discrete time signals and systems and verification of its properties and results.
		18ECL57.3	Implementation of discrete computations using DSP processor and verify the results.
		18ECL57.4	Realize the digital filters using a simulation tool and analyze the response of the filter for an audio signal.
38	**HDL Laboratory**	18ECL58.1	Write Verilog programs in gate, dataflow, behavioral & switch modeling levels of Abstraction
		18ECL58.2	Design and Verify the functionality of digital circuit/system using test benches
		18ECL58.3	Identify the suitable Abstraction levels for a particular digital design
39	**Digital Communication**	**18EC61.1**	Associate and apply the concepts of band pass sampling to well specified signals and channels.
		18EC61.2	Analyze and compute performance parameters and transfer rates for low pass and band pass symbol under ideal and corrupted non band limited channels.
		18EC61.3	Test and validate symbol processing and performance parameters at the receiver under ideal and corrupted band limited channels.
		18EC61.4	Demonstrate that band pass signals subjected to corruption and distortion in a band limited channel can be processed at the receiver to meet specified performance criteria.
		18EC61.5	Understand the principles of spread spectrum communications.

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40	Embedded Systems	18EC62.1	Describe the architectural features and instructions of 32 bit microcontroller ARM Cortex M3.
		18EC62.2	Apply the knowledge gained for Programming ARM Cortex M3 for different applications.
		18EC62.3	Understand the basic hardware components and their selection method based on the characteristics and attributes of an embedded system.
		18EC62.4	Develop the hardware /software co-design and firmware design approaches.
		18EC62.5	Explain the need of real time operating system for embedded system applications.
41	Microwave and Antennas	18EC63.1	Analyze the working principle of various microwave sources and components
		18EC63.2	Appreciate usage and working of microwave devices and realize them with the help of quantitative parameters
		18EC63.3	Familiarize with basic antenna parameters and develop competency to design an antenna
		18EC63.4	Design an antenna array by determining its performance parameters and analyze the various antenna dipole
		18EC63.5	Select an appropriate antenna for a given application
42	Professional Elective -1 PYTHON	18EC646.1	Learn Syntax and Semantics and create Functions in Python
		18EC646.2	Handle Strings and Files in Python.
		18EC646.3	Understand Lists, Dictionaries and Regular expressions in Python.
		18EC646.4	Implement Object Oriented Programming concepts in Python
		18EC646.5	Build Web Services, Network and Database Programs in Python.
43	Embedded Systems Laboratory	18ECL66.1	Understand the instruction set of 32 bit microcontroller ARM Cortex M3, and the software tool required for programming in Assembly and C language.
		18ECL66.2	Develop assembly language programs using ARM Cortex M3 for different applications.
		18ECL66.3	Interface external devices and I/O with ARM Cortex M3.
		18ECL66.4	Develop C language programs and library functions for embedded system applications
44	Communication Laboratory	18ECL67.1	Determine the characteristics and response of microwave waveguide.
		18ECL67.2	Determine the characteristics of micro strip antennas and devices and compute the parameters associated with it.
		18ECL67.3	Design and test the digital and analog modulation circuits and displays the waveforms.
		18ECL67.4	Simulate the digital modulation schemes and compare the error performance of basic digital modulation
45	Mini-Project	18ECMP68.1	Design, Implementation of System to measure the performance parameters, optimally
		18ECMP68.2	Analysing the outcomes of the experiment in software / hardware through comparison
		18ECMP68.3	Imbibing professional ethics in report writing in a systematic manner and adopting to quality presentation
46	Internship	CO1	To Understand the theory concepts and implement the same practically in Industry Environment
47	Computer Network	18EC71.1	Understand the concepts of networking thoroughly
		18EC71.2	Identify the protocols and services of different layers
		18EC71.3	Distinguish the basic network configurations and standards associated with each network
		18EC71.4	Analyze a simple network and measurement of its parameters

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48	**VLSI Design**	**18EC72.1**	Demonstrate the understanding of MOS transistor theory, CMOS fabrication flow and technology scaling.
		18EC72.2	Draw the basic gates using stick and layout diagrams with the knowledge of physical design aspects.
		18EC72.3	Understand the various delay concepts and demonstrate the ability to design combinational logic circuits as per the requirements.
		18EC72.4	Demonstrate the ability to design sequential & dynamic logic circuits as per the requirements.
		18EC72.5	Interpret the memory elements with timing considerations and understand testing and testability issues in VLSI design
49	**DIP**	**17EC733.1**	To Understand the image formation and the role of human visual system plays in perception of gray and color image data.
		17EC733.2	To apply image processing techniques in both the spatial and frequency (Fourier) domains.
		17EC733.3	To conduct independent study and analysis of Image Enhancement techniques
		17EC733.4	To understand noise models and filtering concepts
		17EC733.5	To understand color models and Morphological Image Processing
50	**IOT& WSN**	**18EC741.1**	Describe the OSI Model for the IoT/M2M Systems.
		18EC741.2	Appreciate the architecture and design principles for IoT.
		18EC741.3	Learn the programming for IoT Applications.
		18EC741.4	Identify the communication protocols which best suits the WSNs.
51	**Multimedia Communication**	**18EC743.1**	Understand basics of different multimedia networks and applications
		18EC743.2	Understand different media types and how to represent them in digital form
		18EC743.3	Understand different compression techniques to compress text and images
		18EC743.4	Understand different compression techniques to compress audio and video
		18EC743.5	Describe multimedia communications across the networks
52	**Computer Network Laboratory**	**18ECL76.1**	Use the network simulator for learning and practice of networking algorithms
		18ECL76.2	Illustrate the operations of network protocols and algorithms using C programming
		18ECL76.3	Simulate the network with different configurations to measure the performance parameters
		18ECL76.4	Implement the data link and routing protocols using C programming
53	**VLSI Laboratory**	**18ECL77.1**	Design and simulate combinational and sequential digital circuits using Verilog HDL
		18ECL77.2	Understand the Synthesis process of digital circuits using EDA tool
		18ECL77.3	Perform ASIC design flow and understand the process of synthesis, synthesis constraints and evaluating the synthesis reports to obtain optimum gate level net list
		18ECL77.4	Design and simulate basic CMOS circuits like inverter, common source amplifier and differential amplifiers.
		18ECL77.5	Perform RTL-GDSII flow and understand the stages in ASIC design.
54	**Project Work Phase-1**	**18ECP78.1**	Design, Implementation of System to measure the performance parameters, optimally
		18ECP78.2	Analysing the outcomes of the experiment in software / hardware through comparison
		18ECP78.3	Imbibing professional ethics in report writing in a systematic manner and adopting to quality presentation

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

COs STATEMENTS FOR THE SCHEME 2018 (BATCH:2018 – 2022)

55	Internship	CO1	To understand the theory concepts and implement the same in Industry Environment
56	Wireless and Cellular Communication	18EC81.1	Understand the system architecture and the functional standard specified in LTE 4G.
		18EC81.2	Analyze the role of LTE radio interface protocols and EPS Data convergence protocols to set up, reconfigure and release data and voice from users.
		18EC81.3	Demonstrate the UTRAN and EPS handling processes from set up to release including mobility management for a variety of data call scenarios
		18EC81.4	Test and Evaluate the Performance of resource management and packet data processing and transport algorithms.
57	NETWORK SECURITY	18EC821.1	Describe network security services and mechanisms and explain security concepts
		18EC821.2	Understand the concept of Transport Level Security and secure socket layer
		18EC821.3	Know about Security Concerns in IP security
		18EC821.4	Discuss about Intruders, Intrusion detection and Malicious Software
		18EC821.5	Discuss about intruders, intrusion detection and malicious software
58	Project Work Phase – 2	18ECP83.1	Design, Implementation of System to measure the performance parameters, optimally
		18ECP83.2	Analysing the outcomes of the experiment in software / hardware through comparison
		18ECP83.3	Imbibing professional ethics in report writing in a systematic manner and adopting to quality presentation
59	Technical Seminar	18ECS84.1	Read, Understand and Analyze Technical Reports from reputed International Journals / Magazines / Product Manuals
		18ECS84.2	Prepare essential contents for the topic in a prescribed format and express the knowledge gained through Presentation
		18ECS84.3	Imbibe Professional Ethics in the preparation of Report, Presentation and acknowledge the resources used in content formulation
60	Internship	CO1	To understand the theory concepts and implement the same in Industry Environment

Head of the Department
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