

Course Name: C101 - HS8151 Communicative English

| | |
|---------------|---|
| C101.1 | Analyze articles of general kind magazines and newspapers. |
| C101.2 | Take part in informal conversations and express opinions; introduce themselves and their friends and express opinions in English. |
| C101.3 | Construct conversations and small talks delivered in English. |
| C101.4 | Develop short essays of a general kind and personal letters and emails in English. |
| C101.5 | Improve the knowledge of vocabulary and grammar skills related to communication. |

Course Name: C102 - MA8151 Engineering Mathematics – I

| | |
|---------------|---|
| C102.1 | Apply the basics of Differentiation. |
| C102.2 | Find the maxima & minima of functions. |
| C102.3 | Identify some techniques in Integration. |
| C102.4 | Relate the need of Integration to find Area and Volume. |
| C102.5 | Solve differential equations using some techniques. |

Course Name: C103 - PH8151 Engineering Physics

| | |
|---------------|---|
| C103.1 | Understand the basics of properties of matter and its applications |
| C103.2 | Infer knowledge on concept of waves, optical devices and their application in fibre optics |
| C103.3 | Understand the concepts of thermal properties of materials and their applications in expansion joints and heat exchangers |
| C103.4 | Infer knowledge on advanced physics concepts of quantum theory and its application in tunneling microscope |
| C103.5 | Categorize the crystals based on their structure and gain knowledge about different crystal growth techniques |

Course Name: C104 - CY8151 Engineering Chemistry

| | |
|---------------|---|
| C104.1 | Understand the boiler feed water requirements and propose suitable treatment methodologies to treat water. |
| C104.2 | Identify and apply basic concepts of surface chemistry and catalysis for engineering and technology applications. |
| C104.3 | Develop the knowledge of phase rule and alloys for material selection requirements. |
| C104.4 | Recommend suitable fuels for engineering processes and applications. |
| C104.5 | Understand the different forms of energy resources and apply them for suitable applications in energy sources. |

Course Name: C105 - GE8151 Problem Solving and Python Programming

| | |
|---------------|---|
| C105.1 | Understand the working of computers. |
| C105.2 | Construct the basics of Python Programming constructs. |
| C105.3 | Realize the need of strings, list, and tuple. |
| C105.4 | Design programs involving dictionaries and function. |
| C105.5 | Develop simple programs using file concept and modules. |

Course Name: C106 - GE8152 Engineering Graphics

| | |
|---------------|--|
| C106.1 | Discuss about conics and orthographic views of engineering components. |
| C106.2 | Draw the projection of points, lines and planes. |
| C106.3 | Classify solids and projection of solids at different positions. |
| C106.4 | Show sectioned view of solids and development of surfaces. |
| C106.5 | Draw isometric projection and perspective views of an object/solid. |

Course Name: C107 - GE8161 Problem Solving and Python Programming Lab

| | |
|---------------|--|
| C107.1 | Explain, test, and solve simple Python programs. |
| C107.2 | Design Python programs with conditionals and loops. |
| C107.3 | Develop Python programs step-wise by defining functions and calling them. |
| C107.4 | Extend Python lists, tuples and dictionaries for representing compound data. |
| C107.5 | Analyze data from/to files in Python. |

Course Name: C108 - BS8161 Physics and Chemistry Laboratory

| | |
|---------------|---|
| C108.1 | Understand the functioning of various physics Laboratory equipments |
| C108.2 | Analyze the observed Laboratory data's using graphical models |
| C108.3 | Solve problems individually and collaboratively |

| | |
|---------------|---|
| C108.4 | Analyze the quality of water samples with respect to their acidity, alkalinity and hardness |
| C108.5 | Determine the amount of metal ions through volumetric and spectroscopic techniques |

Course Name: C109 - HS8251 Technical English

| | |
|---------------|---|
| C109.1 | Adapt reading technical texts and write area- specific texts effortlessly. |
| C109.2 | Adapt and comprehend lectures and talks in their area of Specialization successfully. |
| C109.3 | Apply speaking appropriately and effectively in varied formal and informal contexts. |
| C109.4 | Develop reports and winning job application |
| C109.5 | Improve the knowledge of grammar related to technical writing and speaking |

Course Name: C110 - MA8251 Engineering Mathematics – II

| | |
|---------------|---|
| C110.1 | Classify the basic concepts of Matrices and its properties. |
| C110.2 | Identify the line, surface and volume integrals, Gradient, divergence and curl of a vector point function and related identities. |
| C110.3 | Analyze the basics of analytic functions and conformal mapping. |
| C110.4 | Explain the basics of Cauchy’s integral formula and Application of residue theorem for evaluation of real integrals. |
| C110.5 | Compare the Laplace transform and inverse transform of simple functions, properties, various related theorems and application to differential equations with constant coefficients. |

Course Name: C111 - PH8253 Physics for Electronics Engineering

| | |
|---------------|--|
| C111.1 | Understand classical and quantum free electron theories and energy band structures |
| C111.2 | Analyze the basics of semiconductor Physics and its applications in various devices |
| C111.3 | Categorize magnetic properties of materials and their applications in data storage |
| C111.4 | Interpret the functioning of optical materials for opto electronics |
| C111.5 | Understand the basics of quantum structures and their applications in carbon electronics |

Course Name: C112 - BE8254 Basic Electrical and Instrumentation Engineering

| | |
|---------------|---|
| C112.1 | Understand the concept of three phase power circuits and measurement. |
| C112.2 | Comprehend the concepts in transformers. |
| C112.3 | Comprehend the concepts in electrical generators and motors. |
| C112.4 | Operation of Three phase electrical circuits and power measurement. |
| C112.5 | Able to choose appropriate measuring instruments for given application. |

Course Name: C113 - EC8251 Circuit Analysis

| | |
|---------------|--|
| C113.1 | Understand the capacity to analyze electrical circuits. |
| C113.2 | Understand circuit theorems and evaluate the AC and DC circuits. |
| C113.3 | Analyze the frequency response of parallel and series resonance circuits and coupled circuits. |
| C113.4 | Analyze steady state response of any RC, RL and RLC circuits. |
| C113.5 | Analyze the network topologies. |

Course Name: C114 - EC8252 Electronic Devices

| | |
|---------------|--|
| C114.1 | Recall the V-I characteristic of diode. UJT and SCR |
| C114.2 | Describe the equivalence circuits of transistors. |
| C114.3 | Characterize the basic electronic devices such as FET and MOSFET. |
| C114.4 | Characterize the Special semiconductor device. |
| C114.5 | Design and analyze the basic electronic devices such as power and display devices. |

Course Name: C115 - EC8261 Circuits and Devices Laboratory

| | |
|---------------|--|
| C115.1 | Verify transient analysis of the basic electronic devices. |
| C115.2 | Determine the resonance frequency of series and parallel RLC circuit. |
| C115.3 | Verify Thevinin & Norton theorem KVL & KCL, and Super Position Theorems |
| C115.4 | Learn the characteristics of basic electronic devices such as Diode, BJT, FET, SCR |
| C115.5 | Determine RL and RC circuits. |

Course Name: C116 - GE8261 Engineering Practices Laboratory

| | |
|---------------|---|
| C116.1 | Understand the basic components and pipe connections. |
| C116.2 | Study of Making sheet metal models. |

| | |
|---------------|---|
| C116.3 | Understand the foundry and fittings. |
| C116.4 | Design of electrical circuits. |
| C116.5 | Study of electrical components and soldering process. |

Course Name: C201- MA8352 Linear Algebra and Partial Differential Equations

| | |
|---------------|---|
| C201.1 | Learn the fundamental concepts of advanced algebra and their role in modern Mathematics and applied contexts. |
| C201.2 | Identify the accurate and efficient use of advanced algebraic techniques. |
| C201.3 | Demonstrate their mastery by solving non - trivial problems related to the concepts and by proving simple theorems about the statements proven by the text. |
| C201.4 | Compare and solve various types of partial differential equations. |
| C201.5 | Understand to solve engineering problems using Fourier series. |

Course Name: C202- EC8393 Fundamentals of Data Structures In C

| | |
|---------------|--|
| C202.1 | Implement linear and non-linear data structure operations using C |
| C202.2 | Suggest appropriate linear / non-linear data structure for any given data set. |
| C202.3 | Apply hashing concepts for a given problem |
| C202.4 | Modify or suggest new data structure for an application |
| C202.5 | Appropriately choose the sorting algorithm for an application |

Course Name: C203- EC8351 Electronic Circuits- I

| | |
|---------------|--|
| C203.1 | Acquire knowledge of Working principles, characteristics and applications of BJT and FET. |
| C203.2 | Acquire knowledge characteristics of BJT and FET amplifiers. |
| C203.3 | Analyze the performance of small signal BJT and FET amplifiers - single stage and multi stage amplifiers |
| C203.4 | Apply the knowledge gained in the design of Electronic circuits |
| C203.5 | Analyze the frequency responses of amplifiers. |

Course Name: C204- EC8352 Signals and Systems

| | |
|---------------|--|
| C204.1 | Learn to determine if a given system is linear/causal/stable. |
| C204.2 | Design of determining the frequency components present in a deterministic signal. |
| C204.3 | Analyze the characteristics of LTI systems in the time domain and frequency domain. |
| C204.4 | Acquire knowledge of discrete time signals and system in the Fourier and Z transform domain. |
| C204.5 | Analyze the output of an LTI system in the time and frequency domains. |

Course Name: C205- EC8392 Digital Electronics

| | |
|---------------|---|
| C205.1 | Learn to digital electronics in the present contemporary world. |
| C205.2 | Design of various combinational digital circuits using logic gates. |
| C205.3 | Analyze and design procedures for synchronous sequential circuits. |
| C205.4 | Analyze and design procedures for asynchronous sequential circuits. |
| C205.5 | Acquire knowledge of semiconductor memories and related technology. |

Course Name: C206- EC8391 Control Systems Engineering

| | |
|---------------|--|
| C206.1 | Identify the various control system components and their representations. |
| C206.2 | Analyze the various time domain parameters. |
| C206.3 | Analyze the various frequency response plots and its system. |
| C206.4 | Apply the concepts of various system stability criterions. |
| C206.5 | Design the various transfer functions of digital control system using state variable models. |

Course Name: C207- EC8381 Fundamentals of Data Structures in C Laboratory

| | |
|---------------|---|
| C207.1 | Learn the basic and advanced programs in C. |
| C207.2 | Implement the functions and recursive functions in C. |
| C207.3 | Apply data structures using C. |

| | |
|---------------|--|
| C207.4 | Design appropriate sorting algorithm for an application and implement it in a modularized way. |
| C207.5 | Implement searching and sorting algorithms using C. |

Course Name: C208- EC8361 Analog and Digital Circuits Laboratory

| | |
|---------------|--|
| C208.1 | Design and Test rectifiers, filters and regulated power supplies |
| C208.2 | Design and Test BJT/JFET amplifiers and Differentiate cascode and cascade amplifiers. |
| C208.3 | Analyze the limitation in bandwidth of single stage and multi stage amplifier and Measure CMRR in differential amplifier |
| C208.4 | Simulate and analyze amplifier circuit using Pspice. |
| C208.5 | Design and test the digital logic circuit. |

Course Name: C209- HS8381 Interpersonal Skills/Listening &Speaking

| | |
|---------------|---|
| C209.1 | Learn to Listen and respond appropriately |
| C209.2 | Test to Participate in group discussions |
| C209.3 | Acquire knowledge to Make effective presentations |
| C209.4 | Test to Participate confidently and appropriately in conversations both formal and informal |
| C209.5 | Monitor the effective presentations. |

Course Name: C210- MA8451 Probability and Random Processes

| | |
|---------------|--|
| C210.1 | Learn the fundamental knowledge of the concepts of probability and have knowledge of standard distributions which can describe real life phenomenon. |
| C210.2 | Understand the basic concepts of one and two dimensional random variables and apply in engineering applications. |
| C210.3 | Apply the concept random processes in engineering disciplines. |
| C210.4 | Understand and apply the concept of correlation and spectral densities. |
| C210.5 | Analyze the response of random inputs to linear time invariant systems. |

Course Name: C211- EC8452 Electronic Circuits II

| | |
|---------------|--|
| C211.1 | Analyze different types of amplifier circuits. |
| C211.2 | Design BJT oscillator circuits. |
| C211.3 | Design tuned amplifiers |
| C211.4 | Design wave shaping circuits and Multivibrators. |
| C211.5 | Design power amplifier and DC convertors. |

Course Name: C212- EC8491 Communication Theory

| | |
|---------------|--|
| C212.1 | Design AM communication systems. |
| C212.2 | Design Angle modulated communication systems. |
| C212.3 | Apply the concepts of Random Process to the design of Communication systems. |
| C212.4 | Analyze the noise performance of AM and FM systems. |
| C212.5 | Gain knowledge in sampling and quantization. |

Course Name: C213- EC8451 Electromagnetic Fields

| | |
|---------------|--|
| C213.1 | Understand the of fundamental electromagnetic laws and concepts. |
| C213.2 | Learn Maxwell's equations in integral, differential and phasor forms and explain their physical meaning. |
| C213.3 | Apply electromagnetic wave propagation in lossy and in lossless media |
| C213.4 | Solve simple problems requiring estimation of electric and magnetic field quantities based on Faraday's law & Maxwell Concept. |
| C213.5 | Acquire knowledge to solve problems based on the Plane waves. |

Course Name: C214- EC8453 Linear Integrated Circuits

| | |
|---------------|--|
| C214.1 | Design linear and non linear applications of OP – AMPS |
| C214.2 | Design applications using OP – AMPS . |
| C214.3 | Design applications using analog multiplier and PLL. |

| | |
|--|--|
| C214.4 | Design ADC and DAC using OP – AMPS . |
| C214.5 | Generate waveforms using OP – AMP Circuits and analyze special function ICs. |
| Course Name: C215- GE8291 Environmental Science and Engineering | |
| C215.1 | Study the Environmental Pollution or problems cannot be solved by mere laws. |
| C215.2 | Public awareness of environmental is at infant stage. |
| C215.3 | Ignorance and incomplete knowledge has lead to misconceptions |
| C215.4 | Development and improvement in std. of living has lead to serious environmental disasters |
| C215.5 | Study the integrated themes and biodiversity, natural resources, pollution control and waste management. |
| Course Name: C216- EC8461 Circuits Design and Simulation Laboratory | |
| C216.1 | Analyze various types of feedback amplifiers. |
| C216.2 | Design oscillators, tuned amplifiers and wave-shaping circuits. |
| C216.3 | Analysis the operation of various multivibrators. |
| C216.4 | Design Clipper and Clamper Circuits. |
| C216.5 | Design and simulate feedback amplifiers, oscillators, tuned amplifiers, wave-shaping Circuits and multivibrators using SPICE Tool. |
| Course Name: C217- EC8462 Linear Integrated Circuits Laboratory | |
| C217.1 | Design amplifiers, oscillators, D-A converters using operational amplifiers. |
| C217.2 | Design filters using op-amp and performs an experiment on frequency response. |
| C217.3 | Analyze the working of PLL and describe its application as a frequency multiplier. |
| C217.4 | Design DC power supply using ICs. |
| C217.5 | Analyze the performance of filters, multivibrators, A/D converter and analog multiplier using SPICE. |
| Course Name: C301- EC8501 Digital Communication | |
| C301.1 | Learn various source coding theorem and codes. |
| C301.2 | Design PCM Systems and analyze different types of waveform coding. |
| C301.3 | Design and implement base band transmission schemes. |
| C301.4 | Analyze the spectral characteristics of band pass signaling schemes and their noise Performance. |
| C301.5 | Design error control coding schemes. |
| Course Name: C302- EC8553 Discrete-Time Signal Processing | |
| C302.1 | Apply DFT for the analysis of digital signals and systems. |
| C302.2 | Design IIR filters. |
| C302.3 | Design FIR filters and Characterize the effects of finite precision representation on digital filters. |
| C302.4 | Design fixed point and floating point number representation and find quantization error. |
| C302.5 | Acquire knowledge about DSP processor. |
| Course Name: C303- EC8552 Computer Architecture and Organization | |
| C303.1 | Describe data representation, instruction formats and the operation of a digital computer. |
| C303.2 | Illustrate the fixed point and floating-point arithmetic for ALU operation. |
| C303.3 | Summarize the implementation schemes of control unit and pipeline performance. |
| C303.4 | Apply the concept of various memories, interfacing and organization of multiple processors. |
| C303.5 | Design parallel processing technique and unconventional architectures. |

Course Name: C304- EC8551 Communication Networks

| | |
|---------------|---|
| C304.1 | Identify the components required to build different types of networks. |
| C304.2 | Apply the required functionality at each layer for given application. Identify solution for each functionality at each layer. |

| | |
|---------------|---|
| C304.3 | Trace the flow of information from one node to another node in the network. |
| C304.4 | Summarize the various protocols(TCP,UDP). |
| C304.5 | Learn the flow control and congestion control algorithms. |

Course Name: C305-EC8073 Medical Electronics

| | |
|---------------|---|
| C305.1 | Know the human body electro- physiological parameters and recording of bio-potentials |
| C305.2 | Comprehend the non-electrical physiological parameters and their measurement – body temperature, blood pressure, pulse, blood cell count, blood flow meter etc. |
| C305.3 | Interpret the various assist devices used in the hospitals viz. pacemakers, defibrillators, dialyzers and ventilators |
| C305.4 | Comprehend physical medicine methods eg. ultrasonic, shortwave, microwave surgical diathermies , and bio-telemetry principles and methods |
| C305.5 | Know about recent trends in medical instrumentation |

Course Name: C306- ORO551 Renewable Energy Sources

| | |
|---------------|--|
| C306.1 | Understanding the physics of solar radiation. |
| C306.2 | Ability to classify the solar energy collectors and methodologies of storing solar energy. |
| C306.3 | Knowledge in applying solar energy in a useful way. |
| C306.4 | Gain Knowledge in wind energy and biomass with its economic aspects. |
| C306.5 | Knowledge in capturing and applying other forms of energy sources like wind, biogas and geothermal energies. |

Course Name: C307- EC8562 Digital Signal Processing Laboratory

| | |
|---------------|--|
| C308.1 | Learn basic signal processing operations. |
| C308.2 | Demonstrate their abilities towards MATLAB based implementation of various DSP Systems. |
| C308.3 | Analyze the architecture of a DSP Processor. |
| C308.4 | Design and Implement the FIR and IIR Filters in DSP Processor for performing filtering operation over real-time signals. |
| C308.5 | Design a DSP system for various applications of DSP. |

Course Name: C308- EC8561 Communication Systems Laboratory

| | |
|---------------|--|
| C309.1 | Learn to Simulate & validate the various functional modules of a communication system |
| C309.2 | Demonstrate their knowledge in base band signaling schemes through implementation of digital modulation schemes |
| C309.3 | Apply various channel coding schemes & demonstrate their capabilities towards the improvement of the noise performance of communication system |
| C309.4 | Simulate end-to-end communication Link |
| C309.5 | Simulate Error control coding schemes |

Course Name: C309- EC8563 Communication Networks Laboratory

| | |
|---------------|---|
| C310.1 | Communicate between two desktop computers. |
| C310.2 | Implement the different protocols. |
| C310.3 | Program using sockets. |
| C310.4 | Implement and compare the various routing algorithms. |
| C310.5 | Implement congestion control algorithm using simulation tool. |

Course Name: C310- EC8691 Microprocessors and Microcontrollers

| | |
|---------------|--|
| C311.1 | Understand to execute programs based on 8086 microprocessor. |
| C311.2 | Understand the 8086 bus structure. |
| C311.3 | Design and interface I/O circuits. |
| C311.4 | Analyze and implement 8051 microcontroller based systems. |
| C311.5 | Design and interface 8051 microcontroller based system. |

Course Name: C311- EC8095 VLSI Design

| | |
|---------------|---|
| C312.1 | Realize the concepts of digital building blocks using MOS transistor. |
| C312.2 | Design combinational MOS circuits and power strategies. |
| C312.3 | Design and construct Sequential Circuits and Timing systems. |

| | |
|---------------|--|
| C312.4 | Analysis arithmetic building blocks and memory subsystems. |
| C312.5 | Apply and implement FPGA design flow and testing. |

Course Name: C312- EC8652 Wireless Communication

| | |
|---------------|--|
| C313.1 | Characterize a wireless channel and evolve the system design specifications. |
| C313.2 | Design a cellular system based on resource availability and traffic demands. |
| C313.3 | Learn the various digital signaling techniques for fading channels. |
| C313.4 | Identify suitable signaling and multipath mitigation techniques for the wireless Channel and system under consideration. |
| C313.5 | Understand the concepts of multiple antenna techniques. |

Course Name: C313- MG8591 Principles of Management

| | |
|---------------|--|
| C314.1 | Understand the international aspect of management. |
| C314.2 | Learn the Managerial functions like planning, organizing, staffing, leading & controlling. |
| C314.3 | Gain Knowledge the evolution of Management. |
| C314.4 | Understand the functions and principles of management. |
| C314.5 | Learn the application of the principles in an organization. |

Course Name: C314- EC8651 Transmission Lines and RF Systems

| | |
|---------------|--|
| C315.1 | Understand the characteristics of transmission lines and its losses. |
| C315.2 | Design the standing wave ratio and input impedance in high frequency transmission lines. |
| C315.3 | Analyze impedance matching by stubs using smith charts. |
| C315.4 | Analyze the characteristics of TE and TM waves. |
| C315.5 | Design a RF transceiver system for wireless communication. |

Course Name: C315- Naan Muthalvan

| | |
|---------------|--|
| C316.1 | Create a new problem/product. |
| C316.2 | Design flow chat and experiments to find solution. |
| C316.3 | Analyze the results and provide solution for the identified problem. |
| C316.4 | Analyze and discuss the test results. |
| C316.5 | Prepare reports and presentation . |

Course Name: C316- EC8681 Microprocessors and Microcontrollers Laboratory

| | |
|---------------|--|
| C317.1 | Write ALP Programmes for fixed and Floating Point and Arithmetic operations. |
| C317.2 | Interface different I/Os with processor. |
| C317.3 | Generate waveforms using Microprocessors. |
| C317.4 | Execute Programs in 8051. |
| C317.5 | Execute Programs in 8086 and 8051 using MASM simulator. |

Course Name: C317- EC8661 VLSI Design Laboratory

| | |
|---------------|---|
| C318.1 | Write HDL code for basic as well as advanced digital integrated circuit. |
| C318.2 | Import the logic modules into FPGA Boards. |
| C318.3 | Synthesize Place and Route the digital IPs. |
| C318.4 | Design, Simulate and Extract the layouts of Digital & Analog IC Blocks using EDA Tools. |
| C318.5 | Provide hands on design experience with professional design (EDA) platforms. |

Course Name: C318- EC8611 Technical Seminar

| | |
|---------------|--|
| C319.1 | Learn to Listen and respond appropriately. |
| C319.2 | Participate in group discussions. |
| C319.3 | Gain Knowledge to effective presentations. |
| C319.4 | Participate confidently and appropriately in conversations both formal and informal. |
| C319.5 | Apply to Make effective presentations. |

Course Name: C319- HS8581 Professional Communication

| | |
|---------------|---|
| C320.1 | Learn to make effective presentations. |
| C320.2 | Participate confidently in Group Discussions. |
| C320.3 | Learn to attend job interviews and be successful in them. |

| | |
|---------------|--|
| C320.4 | Develop adequate Soft Skills required for the workplace. |
| C320.5 | Develop their confidence and help them attend interviews successfully. |

Course Name: C401- EC8701 Antennas and Microwave Engineering

| | |
|---------------|--|
| C401.1 | Apply the basic principles and evaluate antenna parameters and link power budgets. |
| C401.2 | Enhance the knowledge in the area of various antenna designs. |
| C401.3 | Enhance the knowledge in the area of antenna arrays & application. |
| C401.4 | Gain knowledge in the area of microwave components and antenna for practical applications. |
| C401.5 | Design a microwave system given the application specifications. |

Course Name: C402- EC8751 Optical Communication

| | |
|---------------|--|
| C402.1 | Learn basic elements in optical fibers, different modes and configurations. |
| C402.2 | Analyze the transmission characteristics associated with dispersion and polarization techniques. |
| C402.3 | Design optical sources and detectors with their use in optical communication system. |
| C402.4 | Construct fiber optic receiver systems, measurements and coupling techniques. |
| C402.5 | Design optical communication systems and its networks. |

Course Name: C403- EC8791 Embedded and Real Time Systems

| | |
|---------------|--|
| C403.1 | Learn the concepts of embedded systems. |
| C403.2 | Design the architecture and programming of ARM processor. |
| C403.3 | Gain Knowledge the basic concepts of embedded programming. |
| C403.4 | Implement the basic concepts of real time operating system design. |
| C403.5 | Apply embedded-system concepts for real-time applications. |

Course Name: C404-EC8702 Ad hoc and Wireless Sensor Networks

| | |
|---------------|--|
| C404.1 | Learn the basics of Ad hoc networks and Wireless Sensor Networks. |
| C404.2 | Apply this knowledge to identify the suitable routing algorithm based on the network and user requirement. |
| C404.3 | Apply the knowledge to identify appropriate physical and MAC layer protocols. |
| C404.4 | Understand the transport layer and security issues possible in Ad hoc and sensor networks. |
| C404.5 | Acquire knowledge the OS used in Wireless Sensor Networks and build basic modules. |

Course Name: C405-OME754 Industrial Safety

| | |
|---------------|--|
| C405.1 | Understand to identify and prevent chemical hazard through analysis and apply proper safety techniques on safety engineering and management. |
| C405.2 | Learn to identify and prevent environmental hazard through analysis and apply proper safety techniques on safety engineering and management. |
| C405.3 | Analysis to mechanical hazard . |
| C405.4 | Gain knowledge on safety engineering fundamentals and safety management practices. |
| C405.5 | Apply proper safety techniques on safety engineering and management. |

Course Name: C406- Naan Muthalvan

| | |
|---------------|--|
| C406.1 | Create a new problem/product. |
| C406.2 | Design flow chat and experiments to find solution. |
| C406.3 | Analyze the results and provide solution for the identified problem. |
| C406.4 | Analyze and discuss the test results. |
| C406.5 | Prepare reports and presentation . |

Course Name: C407-EC8711 Embedded Laboratory

| | |
|---------------|---|
| C407.1 | Write programs in ARM for a specific Application. |
| C407.2 | Interface memory, A/D and D/A convertors with ARM system. |

| | |
|---------------|--|
| C407.3 | Analyze the performance of interrupt. |
| C407.4 | Write program for interfacing keyboard, display, motor and sensor. |
| C407.5 | Formulate a mini project using embedded system. |

Course Name: C408-EC8761 Advanced Communication Laboratory

| | |
|---------------|--|
| C408.1 | Analyze the performance of simple optical link by measurement of losses and Analyzing the mode characteristics of fiber. |
| C408.2 | Analyze the Eye Pattern, Pulse broadening of optical fiber and the impact on BER. |
| C408.3 | Estimate the Wireless Channel Characteristics and Analyze the performance of Wireless Communication System. |
| C408.4 | Understand the intricacies in Microwave System design. |
| C408.5 | Understand actual communication waveforms that will be sent and received across wireless channel. |

Course Name: C409-EC8093 Digital Image Processing

| | |
|---------------|---|
| C409.1 | Understand the basics and fundamentals of digital image processing, such as digitization, sampling, quantization, and 2D-transform. |
| C409.2 | Operate on images using the techniques of smoothing, sharpening and enhancement. |
| C409.3 | Understand the restoration concepts and filtering techniques. |
| C409.4 | Learn the basics of segmentation and segmentation algorithm. |
| C409.5 | Gain knowledge of image compression and recognition methods. |

Course Name: C410-EC8094 Satellite Communication

| | |
|---------------|---|
| C410.1 | Analyze the satellite orbits. |
| C410.2 | Compare the earth segment and space segment. |
| C410.3 | Analyze the satellite Link design. |
| C410.4 | Understand the concepts of satellite access & coding methods. |
| C410.5 | Design various satellite applications. |

Course Name: C411-EC8811 Project Work

| | |
|---------------|--|
| C411.1 | Formulate and analyze problem / create a new product/ process. |
| C411.2 | Design and conduct experiments to find solution. |
| C411.3 | Analyze the results and provide solution for the identified problem, prepare project report and make presentation. |
| C411.4 | Conduct experiments, analyze and discuss the test results, and make conclusions. |
| C411.5 | Prepare project reports and presentation . |

Course Name: C101 - HS8151 Communicative English

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|----------|----------|----------|----------|----------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|
| C101.1 | - | - | - | - | - | 3 | 3 | 3 | 1 | 3 | 2 | - | - | - | - |
| C101.2 | - | - | - | - | - | 3 | 3 | 3 | 1 | 3 | 1 | - | - | - | - |
| C101.3 | - | - | - | - | - | 3 | 3 | 3 | 2 | 3 | 3 | - | - | - | - |
| C101.4 | - | - | - | - | - | 3 | 3 | 3 | 2 | 3 | 3 | - | - | - | - |
| C101.5 | - | - | - | - | - | 3 | 3 | 3 | 2 | 3 | 2 | - | - | - | - |
| Average | 0 | 0 | 0 | 0 | 0 | 3.0 | 3.0 | 3.0 | 1.6 | 3.0 | 2.2 | 0 | 0 | 0 | 0 |

Course Name: C102 - MA8151 Engineering Mathematics – I

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|----------|----------|----------|----------|----------|----------|------------|------------|----------|----------|----------|
| C102.1 | 3 | 2 | 3 | 3 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| C102.2 | 3 | 2 | 3 | 2 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| C102.3 | 3 | 2 | 3 | 2 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| C102.4 | 3 | 2 | 3 | 2 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| C102.5 | 2 | 2 | 2 | 2 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| Average | 2.8 | 2.0 | 2.8 | 2.2 | 0 | 0 | 0 | 0 | 0 | 0 | 1.0 | 1.0 | 0 | 0 | 0 |

Course Name: C103 - PH8151 Engineering Physics

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|----------|----------|----------|----------|----------|----------|------------|------------|----------|----------|----------|
| C103.1 | 3 | 3 | 3 | 3 | - | - | - | - | - | - | 2 | 2 | - | - | - |
| C103.2 | 3 | 3 | 3 | 2 | - | - | - | - | - | - | 2 | 2 | - | - | - |
| C103.3 | 3 | 3 | 3 | 2 | - | - | - | - | - | - | 2 | 2 | - | - | - |
| C103.4 | 3 | 2 | 2 | 2 | - | - | - | - | - | - | 1 | 2 | - | - | - |
| C103.5 | 3 | 2 | 2 | 1 | - | - | - | - | - | - | 1 | 2 | - | - | - |
| Average | 3.0 | 2.6 | 2.6 | 2.0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.6 | 2.0 | 0 | 0 | 0 |

Course Name: C104 - CY8151 Engineering Chemistry

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|----------|----------|----------|----------|----------|----------|------------|------------|----------|----------|----------|
| C104.1 | 3 | 2 | 3 | 2 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| C104.2 | 3 | 2 | 3 | 3 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| C104.3 | 3 | 2 | 3 | 3 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| C104.4 | 3 | 2 | 3 | 3 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| C104.5 | 3 | 2 | 2 | 2 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| Average | 3.0 | 2.0 | 2.8 | 2.6 | 0 | 0 | 0 | 0 | 0 | 0 | 1.0 | 1.0 | 0 | 0 | 0 |

Course Name: C105 - GE8151 Problem Solving and Python Programming

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|----------|------------|------------|------------|----------|----------|
| C105.1 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | 3 | 3 | 2 | - | - |
| C105.2 | 3 | 3 | 2 | 2 | 2 | - | - | - | - | - | 2 | 2 | 3 | - | - |
| C105.3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | 3 | 3 | 3 | - | - |
| C105.4 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | 3 | 3 | 3 | - | - |
| C105.5 | 2 | 3 | 3 | 3 | 3 | - | - | - | - | - | 3 | 3 | 3 | - | - |
| Average | 2.8 | 3.0 | 2.8 | 2.8 | 2.8 | 0 | 0 | 0 | 0 | 0 | 2.8 | 2.8 | 2.8 | 0 | 0 |

Course Name: C106 - GE8152 Engineering Graphics

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|------------|------------|------------|------------|----------|----------|
| C106.1 | 3 | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 3 | - | - |
| C106.2 | 3 | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 3 | - | - |
| C106.3 | 3 | - | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | - | - |
| C106.4 | 3 | - | - | - | - | - | - | - | - | 2 | 1 | 2 | 3 | - | - |
| C106.5 | 3 | - | - | - | - | - | - | - | - | 2 | 1 | 2 | 2 | - | - |
| Average | 3.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.0 | 1.6 | 2.0 | 2.6 | 0 | 0 |

Course Name: C107 - GE8161 Problem Solving and Python Programming Lab

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| C107.1 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | 3 | 2 | 3 | - | - |

| | | | | | | | | | | | | | | | |
|----------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|----------|------------|------------|------------|----------|----------|
| C107.2 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | 3 | 2 | 3 | - | - |
| C107.3 | 3 | 3 | 3 | 3 | 2 | - | - | - | - | - | 2 | 2 | 3 | - | - |
| C107.4 | 3 | 2 | 2 | 2 | 2 | - | - | - | - | - | 1 | 3 | 3 | - | - |
| C107.5 | 1 | 2 | 2 | 3 | 1 | - | - | - | - | - | 1 | 2 | 2 | - | - |
| Average | 2.6 | 2.6 | 2.6 | 2.8 | 2.2 | 0 | 0 | 0 | 0 | 0 | 2.0 | 2.2 | 2.8 | 0 | 0 |

Course Name: C108 - BS8161 Physics and Chemistry Laboratory

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C108.1 | 3 | 2 | 3 | 2 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| C108.2 | 3 | 2 | 3 | 3 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| C108.3 | 3 | 2 | 3 | 3 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| C108.4 | 3 | 2 | 3 | 3 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| C108.5 | 3 | 2 | 2 | 2 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| Average | 3.0 | 2.0 | 2.8 | 2.6 | 0 | 0 | 0 | 0 | 0 | 0 | 1.0 | 1.0 | 0 | 0 | 0 |

Course Name: C109 - HS8251 Technical English

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C109.1 | - | - | - | - | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | - | - | - |
| C109.2 | - | - | - | - | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | - | - | - |
| C109.3 | - | - | - | - | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | - | - | - |
| C109.4 | - | - | - | - | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | - | - | - |
| C109.5 | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 | - | - | - |
| Average | 0 | 0 | 0 | 0 | 2.8 | 3.0 | 3.0 | 3.0 | 2.2 | 3.0 | 3.0 | 3.0 | 0 | 0 | 0 |

Course Name: C110 - MA8251 Engineering Mathematics – II

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C110.1 | 3 | 3 | 3 | 3 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| C110.2 | 3 | 3 | 3 | 2 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| C110.3 | 3 | 3 | 3 | 2 | - | - | - | - | - | - | 1 | 1 | - | - | - |

| | | | | | | | | | | | | | | | |
|----------------|------------|------------|------------|------------|----------|----------|----------|----------|----------|----------|------------|------------|----------|----------|----------|
| C110.4 | 3 | 3 | 3 | 2 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| C110.5 | 3 | 3 | 2 | 2 | - | - | - | - | - | - | 1 | 1 | - | - | - |
| Average | 3.0 | 3.0 | 2.8 | 2.2 | 0 | 0 | 0 | 0 | 0 | 0 | 1.0 | 1.0 | 0 | 0 | 0 |

Course Name: C111 - PH8253 Physics for Electronics Engineering

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|----------|----------|----------|----------|----------|----------|------------|------------|----------|----------|----------|
| C111.1 | 3 | 3 | 2 | 1 | - | - | - | - | - | - | 1 | 2 | - | - | - |
| C111.2 | 3 | 3 | 3 | 2 | - | - | - | - | - | - | 2 | 2 | - | - | - |
| C111.3 | 3 | 3 | 3 | 1 | - | - | - | - | - | - | 1 | 2 | - | - | - |
| C111.4 | 3 | 3 | 3 | 2 | - | - | - | - | - | - | 2 | 2 | - | - | - |
| C111.5 | 3 | 3 | 3 | 2 | - | - | - | - | - | - | 2 | 2 | - | - | - |
| Average | 3.0 | 3.0 | 2.8 | 1.6 | 0 | 0 | 0 | 0 | 0 | 0 | 1.6 | 2.0 | 0 | 0 | 0 |

Course Name: C112 - BE8254 Basic Electrical and Instrumentation Engineering

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C112.1 | 3 | 3 | 3 | 1 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 2 | 2 |
| C112.2 | 3 | 2 | 3 | 2 | 1 | 3 | - | - | - | - | 3 | 3 | 3 | 3 | 3 |
| C112.3 | 3 | 2 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 2 | 2 |
| C112.4 | 3 | 2 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 3 | 3 | 3 | 3 |
| C112.5 | 3 | 2 | 2 | 2 | 3 | 2 | - | - | - | - | 2 | 1 | 2 | 1 | 3 |
| Average | 3.0 | 2.2 | 2.8 | 2.2 | 2.2 | 2.8 | 0 | 0 | 0 | 0 | 2.8 | 2.2 | 2.8 | 2.2 | 2.6 |

Course Name: C113 - EC8251 Circuit Analysis

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| C113.1 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 1 | 1 | 3 | 3 | 2 |
| C113.2 | 3 | 3 | 3 | 2 | 3 | 3 | - | - | - | - | 3 | 2 | 3 | 2 | 3 |
| C113.3 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 3 | 3 |
| C113.4 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 3 | 3 | 2 | 2 |
| C113.5 | 3 | 3 | 2 | 3 | 3 | 2 | - | - | - | - | 2 | 2 | 2 | 1 | 3 |

| | | | | | | | | | | | | | | | |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| Average | 3.0 | 3.0 | 2.8 | 2.8 | 2.8 | 2.8 | 0 | 0 | 0 | 0 | 2.4 | 2.0 | 2.8 | 2.2 | 2.6 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|

Course Name: C114 - EC8252 Electronic Devices

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C114.1 | 3 | 3 | 3 | 1 | 2 | 3 | - | - | - | - | 3 | 2 | 2 | 2 | 2 |
| C114.2 | 3 | 3 | 3 | 2 | 1 | 3 | - | - | - | - | 3 | 3 | 3 | 3 | 3 |
| C114.3 | 3 | 2 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 2 | 2 |
| C114.4 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 3 | 3 | 3 | 3 |
| C114.5 | 3 | 3 | 2 | 2 | 3 | 3 | - | - | - | - | 2 | 1 | 3 | 3 | 2 |
| Average | 3.0 | 2.8 | 2.8 | 2.2 | 2.2 | 3.0 | 0 | 0 | 0 | 0 | 2.8 | 2.2 | 2.8 | 2.6 | 2.4 |

Course Name: C115 - EC8261 Circuits and Devices Laboratory

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C115.1 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | 2 | 1 | 3 | 3 | 2 |
| C115.2 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | - | 2 | 3 | 3 | 2 | 3 |
| C115.3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | 3 | 3 | 3 | 3 | 3 |
| C115.4 | 3 | 3 | 3 | 3 | 2 | - | - | - | - | - | 2 | 2 | 3 | 2 | 3 |
| C115.5 | 3 | 3 | 2 | 2 | 2 | - | - | - | - | - | 1 | 3 | 3 | 3 | 3 |
| Average | 3.0 | 3.0 | 2.8 | 2.6 | 2.6 | 0 | 0 | 0 | 0 | 0 | 2.0 | 2.4 | 3.0 | 2.6 | 2.8 |

Course Name: C116 - GE8261 Engineering Practices Laboratory

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C116.1 | 3 | 3 | 3 | 1 | 1 | - | - | - | - | - | 1 | 2 | 2 | 1 | 2 |
| C116.2 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | - | 2 | 3 | 3 | 2 | 1 |
| C116.3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | 1 | 3 | 2 | 2 | 3 |
| C116.4 | 3 | 3 | 3 | 1 | 3 | - | - | - | - | - | 3 | 3 | 3 | 2 | 2 |
| C116.5 | 3 | 3 | 2 | 3 | 2 | - | - | - | - | - | 3 | 1 | 2 | 2 | 3 |
| Average | 3.0 | 3.0 | 2.8 | 2.0 | 2.4 | 0 | 0 | 0 | 0 | 0 | 2.0 | 2.4 | 2.4 | 1.8 | 2.2 |

Course Name: C201- MA8352 Linear Algebra and Partial Differential Equations

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|----------|------------|------------|----------|----------|----------|
| C201.1 | 3 | 3 | 3 | 2 | 1 | - | - | - | - | - | 2 | 2 | - | - | - |
| C201.2 | 3 | 3 | 3 | 2 | 1 | - | - | - | - | - | 3 | 3 | - | - | - |
| C201.3 | 3 | 3 | 3 | 2 | 1 | - | - | - | - | - | 3 | 2 | - | - | - |
| C201.4 | 3 | 3 | 3 | 2 | 1 | - | - | - | - | - | 3 | 3 | - | - | - |
| C201.5 | 3 | 3 | 2 | 2 | 1 | - | - | - | - | - | 1 | 2 | - | - | - |
| Average | 3.0 | 3.0 | 2.8 | 2.0 | 1.0 | 0 | 0 | 0 | 0 | 0 | 2.4 | 2.4 | 0 | 0 | 0 |

Course Name: C202- EC8393 Fundamentals of Data Structures In C

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C202.1 | 2 | 3 | 3 | 2 | 2 | 3 | - | - | - | - | 1 | 3 | 3 | 2 | 2 |
| C202.2 | 1 | 2 | 3 | 2 | 2 | 3 | - | - | - | - | 2 | 2 | 3 | 2 | 2 |
| C202.3 | 2 | 3 | 3 | 2 | 3 | 3 | - | - | - | - | 2 | 2 | 2 | 2 | 2 |
| C202.4 | 2 | 1 | 3 | 3 | 1 | 3 | - | - | - | - | 2 | 2 | 3 | 3 | 3 |
| C202.5 | 2 | 3 | 2 | 2 | 3 | 3 | - | - | - | - | 1 | 3 | 3 | 2 | 3 |
| Average | 1.8 | 2.4 | 2.8 | 2.2 | 2.2 | 3.0 | 0 | 0 | 0 | 0 | 1.6 | 2.4 | 2.8 | 2.2 | 2.4 |

Course Name: C203- EC8351 Electronic Circuits- I

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C203.1 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 2 | 2 | 2 |
| C203.2 | 3 | 3 | 3 | 2 | 3 | 2 | - | - | - | - | 3 | 3 | 2 | 3 | 3 |
| C203.3 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 2 | 2 |
| C203.4 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 3 | 2 | 3 | 3 |
| C203.5 | 3 | 2 | 2 | 3 | 3 | 3 | - | - | - | - | 2 | 3 | 2 | 3 | 2 |
| Average | 3.0 | 2.8 | 2.8 | 2.8 | 2.6 | 2.8 | 0 | 0 | 0 | 0 | 2.8 | 2.6 | 2.2 | 2.6 | 2.4 |

Course Name: C204- EC8352 Signals and Systems

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C204.1 | 3 | 2 | 2 | - | 3 | 3 | - | - | - | - | 2 | 3 | 3 | 3 | 2 |
| C204.2 | 3 | 3 | 3 | - | 2 | 3 | - | - | - | - | 2 | 3 | 3 | 3 | 3 |
| C204.3 | 3 | 3 | 3 | - | 3 | 2 | - | - | - | - | 1 | 3 | 3 | 3 | 3 |
| C204.4 | 3 | 3 | 3 | - | 2 | 3 | - | - | - | - | 2 | 3 | 3 | 3 | 2 |
| C204.5 | 3 | 3 | 2 | 3 | 3 | 2 | - | - | - | - | 1 | 3 | 3 | 3 | 3 |
| Average | 3.0 | 2.8 | 2.6 | 3.0 | 2.6 | 2.6 | 0 | 0 | 0 | 0 | 1.6 | 3.0 | 3.0 | 3.0 | 2.6 |

Course Name: C205- EC8392 Digital Electronics

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C205.1 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 3 | 2 | 3 | 2 |
| C205.2 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | 1 | 3 | 2 | 1 |
| C205.3 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 2 | 2 | 2 | 3 | 3 |
| C205.4 | 2 | 3 | 1 | 3 | 3 | 3 | - | - | - | - | 3 | 2 | 3 | 2 | 1 |
| C205.5 | 3 | 3 | 3 | 2 | 2 | 3 | - | - | - | - | 2 | 2 | 2 | 3 | 3 |
| Average | 2.8 | 3.0 | 2.6 | 2.8 | 2.6 | 3.0 | 0 | 0 | 0 | 0 | 2.4 | 2.0 | 2.4 | 2.6 | 2.0 |

Course Name: C206- EC8391 Control Systems Engineering

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|

| | | | | | | | | | | | | | | | |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C206.1 | 3 | 3 | 3 | 2 | 2 | 3 | - | - | - | - | 2 | 3 | 3 | 3 | 2 |
| C206.2 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | 2 | 3 | 3 | 1 |
| C206.3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | 3 | 3 | 3 | 3 |
| C206.4 | 3 | 3 | 3 | 2 | 3 | 3 | - | - | - | - | 2 | 2 | 3 | 2 | 3 |
| C206.5 | 3 | 2 | 3 | 3 | 2 | 3 | - | - | - | - | 2 | 3 | 2 | 3 | 3 |
| Average | 3.0 | 2.8 | 3.0 | 2.6 | 2.6 | 3.0 | 0 | 0 | 0 | 0 | 2.0 | 2.6 | 2.8 | 2.8 | 2.4 |

Course Name: C207- EC8381 Fundamentals of Data Structures in C Laboratory

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C207.1 | 2 | 3 | 3 | 2 | 2 | 2 | - | - | - | - | 3 | 3 | 2 | 1 | 2 |
| C207.2 | 3 | 3 | 1 | 1 | 2 | 3 | - | - | - | - | 1 | 2 | 3 | 2 | 1 |
| C207.3 | 3 | 3 | 3 | 2 | 3 | 3 | - | - | - | - | 3 | 2 | 2 | 3 | 3 |
| C207.4 | 3 | 1 | 2 | 3 | 1 | 3 | - | - | - | - | 1 | 2 | 3 | 2 | 2 |
| C207.5 | 3 | 2 | 3 | 2 | 2 | 3 | - | - | - | - | 3 | 3 | 2 | 3 | 2 |
| Average | 2.8 | 2.4 | 2.4 | 2.0 | 2.0 | 2.8 | 0 | 0 | 0 | 0 | 2.2 | 2.4 | 2.4 | 2.2 | 2.0 |

Course Name: C208- EC8361 Analog and Digital Circuits Laboratory

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C208.1 | 3 | 2 | 3 | 2 | 1 | 3 | - | - | - | - | 2 | 2 | 3 | 2 | 2 |
| C208.2 | 3 | 2 | 3 | 2 | 3 | 3 | - | - | - | - | 2 | 2 | 3 | 2 | 2 |
| C208.3 | 3 | 3 | 3 | 1 | 3 | 3 | - | - | - | - | 2 | 2 | 3 | 2 | 2 |
| C208.4 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | 2 | 3 | 3 | 3 |
| C208.5 | 3 | 3 | 2 | 3 | 3 | 3 | - | - | - | - | 2 | 2 | 3 | 2 | 3 |
| Average | 3.0 | 2.6 | 2.8 | 2.2 | 2.6 | 3.0 | 0 | 0 | 0 | 0 | 2.0 | 2.0 | 3.0 | 2.2 | 2.4 |

Course Name: C209- HS8381 Interpersonal Skills/Listening & Speaking

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C209.1 | - | - | - | - | - | 3 | - | 3 | 2 | 3 | 2 | 3 | - | - | - |
| C209.2 | - | - | - | - | - | 3 | - | 3 | 3 | 3 | 2 | 3 | - | - | - |

| | | | | | | | | | | | | | | | |
|----------------|----------|----------|----------|----------|----------|------------|----------|------------|------------|------------|------------|------------|----------|----------|----------|
| C209.3 | - | - | - | - | - | 3 | - | 3 | 2 | 3 | 3 | 3 | - | - | - |
| C209.4 | - | - | - | - | - | 3 | - | 3 | 2 | 3 | 3 | 3 | - | - | - |
| C209.5 | - | - | - | - | - | 3 | - | 3 | 2 | 3 | 1 | 3 | - | - | - |
| Average | 0 | 0 | 0 | 0 | 0 | 3.0 | 0 | 3.0 | 2.2 | 3.0 | 2.2 | 3.0 | 0 | 0 | 0 |

Course Name: C210- MA8451 Probability and Random Processes

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C210.1 | 3 | 3 | 3 | 3 | 2 | - | - | - | - | - | 2 | 2 | | | |
| C210.2 | 3 | 3 | 3 | 2 | 2 | - | - | - | - | - | 3 | 2 | | | |
| C210.3 | 3 | 3 | 3 | 2 | 2 | - | - | - | - | - | 3 | 2 | | | |
| C210.4 | 3 | 3 | 3 | 2 | 2 | - | - | - | - | - | 2 | 2 | | | |
| C210.5 | 3 | 3 | 2 | 2 | 2 | - | - | - | - | - | 3 | 2 | | | |
| Average | 3.0 | 3.0 | 2.8 | 2.2 | 2.0 | 0 | 0 | 0 | 0 | 0 | 2.6 | 2.0 | 0 | 0 | 0 |

Course Name: C211- EC8452 Electronic Circuits II

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C211.1 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 1 | 2 | 2 | 1 | 2 |
| C211.2 | 3 | 3 | 2 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 2 | 1 |
| C211.3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 2 | 2 | 1 | 3 |
| C211.4 | 3 | 3 | 2 | 3 | 3 | 3 | - | - | - | - | 3 | 2 | 3 | 2 | 2 |
| C211.5 | 3 | 2 | 3 | 2 | 2 | 3 | - | - | - | - | 3 | 2 | 2 | 2 | 2 |
| Average | 3.0 | 2.8 | 2.6 | 2.8 | 2.4 | 3.0 | 0 | 0 | 0 | 0 | 2.6 | 2.0 | 2.4 | 1.6 | 2.0 |

Course Name: C212- EC8491 Communication Theory

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C212.1 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 1 | 1 | 3 | 3 | 2 |
| C212.2 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 3 | 3 | 2 | 1 |
| C212.3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 1 | 3 | 3 | 3 | 3 |

| | | | | | | | | | | | | | | | |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C212.4 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 3 | 3 | 2 | 2 |
| C212.5 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 1 | 3 | 3 | 3 |
| Average | 3.0 | 3.0 | 3.0 | 3.0 | 2.4 | 3.0 | 0 | 0 | 0 | 0 | 2.2 | 2.2 | 3.0 | 2.6 | 2.2 |

Course Name: C213- EC8451 Electromagnetic Fields

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C213.1 | 3 | 3 | 3 | 3 | - | 3 | - | - | - | - | 3 | 2 | 2 | 3 | 2 |
| C213.2 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 3 | 3 |
| C213.3 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 2 | 3 | 3 |
| C213.4 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 1 | 2 | 3 | 2 | 3 |
| C213.5 | 3 | 3 | 2 | 2 | 2 | 3 | - | - | - | - | 2 | 3 | 2 | 3 | 3 |
| Average | 3.0 | 3.0 | 2.8 | 2.8 | 2.0 | 3.0 | 0 | 0 | 0 | 0 | 2.4 | 2.2 | 2.4 | 2.8 | 2.8 |

Course Name: C214- EC8453 Linear Integrated Circuits

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C214.1 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 3 | 3 | 3 | 2 |
| C214.2 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 3 | 3 | 3 | 2 |
| C214.3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 3 | 2 | 1 | 2 |
| C214.4 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 3 | 3 | 3 | 3 |
| C214.5 | 3 | 2 | 3 | 2 | 3 | 2 | - | - | - | - | 1 | 3 | 3 | 2 | 3 |
| Average | 3.0 | 2.8 | 3.0 | 2.8 | 2.6 | 2.8 | 0 | 0 | 0 | 0 | 2.6 | 3.0 | 2.8 | 2.4 | 2.4 |

Course Name: C215- GE8291 Environmental Science and Engineering

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| C215.1 | 3 | 3 | - | 3 | - | 3 | 3 | 1 | - | - | 2 | 2 | - | - | - |
| C215.2 | 3 | 3 | - | 3 | - | 3 | 3 | 1 | - | - | 1 | 2 | - | - | - |
| C215.3 | 3 | 3 | - | 3 | - | 3 | 2 | 1 | - | - | 1 | 2 | - | - | - |
| C215.4 | 3 | 3 | - | 3 | - | 3 | 2 | 1 | - | - | 2 | 2 | - | - | - |

| | | | | | | | | | | | | | | | |
|----------------|------------|------------|----------|------------|----------|------------|------------|------------|----------|----------|------------|------------|----------|----------|----------|
| C215.5 | 3 | 2 | - | 2 | - | 3 | 2 | 1 | - | - | 1 | 1 | - | - | - |
| Average | 3.0 | 2.8 | 0 | 2.8 | 0 | 3.0 | 2.4 | 1.0 | 0 | 0 | 1.4 | 1.8 | 0 | 0 | 0 |

Course Name: C216- EC8461 Circuits Design and Simulation Laboratory

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C216.1 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 2 | 1 | 2 |
| C216.2 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 2 | 3 | 2 | 1 |
| C216.3 | 3 | 3 | 3 | 3 | 3 | 2 | - | - | - | - | 3 | 2 | 2 | 3 | 3 |
| C216.4 | 3 | 3 | 2 | 3 | 3 | 3 | - | - | - | - | 2 | 2 | 3 | 2 | 2 |
| C216.5 | 3 | 2 | 2 | 3 | 2 | 3 | - | - | - | - | 2 | 2 | 2 | 2 | 3 |
| Average | 3.0 | 2.8 | 2.6 | 3.0 | 2.6 | 2.8 | 0 | 0 | 0 | 0 | 2.6 | 2.0 | 2.4 | 2.0 | 2.2 |

Course Name: C217- EC8462 Linear Integrated Circuits Laboratory

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C217.1 | 2 | 3 | 3 | 3 | 1 | 3 | - | - | - | - | 2 | 2 | 3 | 3 | 2 |
| C217.2 | 2 | 3 | 3 | 3 | 1 | 3 | - | - | - | - | 3 | 1 | 3 | 3 | 1 |
| C217.3 | 2 | 3 | 3 | 3 | 1 | 3 | - | - | - | - | 3 | 2 | 2 | 3 | 3 |
| C217.4 | 2 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 2 | 2 | 3 | 3 | 2 |
| C217.5 | 3 | 3 | 2 | 2 | 3 | 3 | - | - | - | - | 1 | 1 | 3 | 3 | 3 |
| Average | 2.2 | 3.0 | 2.8 | 2.8 | 1.6 | 3.0 | 0 | 0 | 0 | 0 | 2.2 | 1.6 | 2.8 | 3.0 | 2.2 |

Course Name: C301- EC8501 Digital Communication

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C301.1 | 3 | 2 | 3 | 3 | 2 | 2 | - | - | - | - | 3 | 3 | 2 | 3 | 2 |
| C301.2 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | 1 | 3 | 3 | 1 |
| C301.3 | 3 | 3 | 3 | 3 | 2 | 2 | - | - | - | - | 2 | 2 | 3 | 3 | 3 |
| C301.4 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 2 | 3 | 3 | 2 |
| C301.5 | 3 | 3 | 3 | 2 | 3 | 3 | - | - | - | - | 2 | 2 | 3 | 3 | 3 |
| Average | 3.0 | 2.8 | 3.0 | 2.8 | 2.6 | 2.6 | 0 | 0 | 0 | 0 | 2.4 | 2.0 | 2.8 | 3.0 | 2.2 |

Course Name: C302- EC8553 Discrete-Time Signal Processing

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C302.1 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 2 | 3 | 3 | 3 | 2 |
| C302.2 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 1 | 1 | 3 | 3 | 1 |
| C302.3 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 2 | 3 | 3 | 3 | 3 |
| C302.4 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | 3 | 3 | 3 | 2 |
| C302.5 | 3 | 2 | 3 | 2 | 3 | 3 | - | - | - | - | 2 | 2 | 2 | 3 | 3 |
| Average | 3.0 | 2.8 | 3.0 | 2.8 | 2.4 | 3.0 | 0 | 0 | 0 | 0 | 1.8 | 2.4 | 2.8 | 3.0 | 2.2 |

Course Name: C303- EC8552 Computer Architecture and Organization

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|----------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C303.1 | 3 | 3 | 2 | 3 | - | 3 | - | - | - | - | 3 | 3 | 2 | 3 | 2 |
| C303.2 | 3 | 3 | 3 | 3 | - | 3 | - | - | - | - | 2 | 1 | 3 | 3 | 1 |
| C303.3 | 3 | 3 | 3 | 3 | - | 3 | - | - | - | - | 2 | 2 | 2 | 3 | 3 |
| C303.4 | 3 | 3 | 2 | 3 | - | 3 | - | - | - | - | 3 | 2 | 3 | 3 | 2 |
| C303.5 | 3 | 2 | 3 | 3 | - | 3 | - | - | - | - | 2 | 2 | 2 | 3 | 3 |
| Average | 3.0 | 2.8 | 2.6 | 3.0 | 0 | 3.0 | 0 | 0 | 0 | 0 | 2.4 | 2.0 | 2.4 | 3.0 | 2.2 |

Course Name: C304- EC8551 Communication Networks

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C304.1 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 1 | 1 | 2 | 1 | 2 |
| C304.2 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 1 | 2 | 1 |
| C304.3 | 3 | 3 | 3 | 3 | 3 | 2 | - | - | - | - | 3 | 3 | 2 | 3 | 3 |
| C304.4 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 1 | 2 | 2 |
| C304.5 | 3 | 3 | 2 | 2 | 2 | 3 | - | - | - | - | 1 | 3 | 2 | 3 | 3 |
| Average | 3.0 | 3.0 | 2.8 | 2.8 | 2.2 | 2.8 | 0 | 0 | 0 | 0 | 2.2 | 2.2 | 1.6 | 2.2 | 2.2 |

Course Name: C305-EC8073 Medical Electronics

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|

| | | | | | | | | | | | | | | | |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C305.1 | 3 | 3 | 3 | 3 | 2 | 1 | - | - | - | - | 2 | 2 | 1 | 1 | 2 |
| C305.2 | 3 | 2 | 3 | 3 | 2 | 2 | - | - | - | - | 2 | 2 | 1 | 2 | 1 |
| C305.3 | 3 | 3 | 3 | 3 | 1 | 2 | - | - | - | - | 2 | 2 | 1 | 3 | 1 |
| C305.4 | 3 | 3 | 3 | 3 | 2 | 2 | - | - | - | - | 2 | 2 | 1 | 2 | 1 |
| C305.5 | 3 | 2 | 3 | 2 | 2 | 1 | - | - | - | - | 2 | 2 | 1 | 3 | 1 |
| Average | 3.0 | 2.6 | 3.0 | 2.8 | 1.8 | 1.6 | 0 | 0 | 0 | 0 | 2.0 | 2.0 | 1.0 | 2.2 | 1.2 |

Course Name: C306- ORO551 Renewable Energy Sources

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C306.1 | 3 | 3 | - | - | - | - | - | - | - | - | 2 | 3 | - | - | - |
| C306.2 | 3 | 2 | - | - | - | - | - | - | - | - | 2 | 3 | - | - | - |
| C306.3 | 3 | 2 | - | - | - | - | - | - | - | - | 2 | 3 | - | - | - |
| C306.4 | 3 | 2 | - | - | - | - | - | - | - | - | 2 | 3 | - | - | - |
| C306.5 | 3 | 2 | - | - | - | - | - | - | - | - | 2 | 3 | - | - | - |
| Average | 3.0 | 2.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.0 | 3.0 | 0 | 0 | 0 |

Course Name: C307- EC8562 Digital Signal Processing Laboratory

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C307.1 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 2 | 3 | 3 | 2 |
| C307.2 | 2 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 2 | 3 | 3 | 2 |
| C307.3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 2 | 2 | 3 | 2 |
| C307.4 | 3 | 3 | 2 | 3 | 3 | 3 | - | - | - | - | 3 | 2 | 3 | 3 | 3 |
| C307.5 | 3 | 3 | 2 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 3 | 3 |
| Average | 2.8 | 3.0 | 2.6 | 3.0 | 2.8 | 3.0 | 0 | 0 | 0 | 0 | 3.0 | 2.0 | 2.8 | 3.0 | 2.4 |

Course Name: C308- EC8561 Communication Systems Laboratory

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C308.1 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 1 | 2 | 3 | 3 | 2 |

| | | | | | | | | | | | | | | | |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C308.2 | 3 | 3 | 3 | 3 | 3 | 2 | - | - | - | - | 2 | 3 | 3 | 3 | 1 |
| C308.3 | 3 | 3 | 3 | 3 | 3 | 2 | - | - | - | - | 2 | 3 | 3 | 3 | 3 |
| C308.4 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 1 | 3 | 3 | 3 |
| C308.5 | 3 | 3 | 3 | 3 | 3 | 2 | - | - | - | - | 3 | 3 | 3 | 3 | 3 |
| Average | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.4 | 0 | 0 | 0 | 0 | 2.2 | 2.4 | 3.0 | 3.0 | 2.4 |

Course Name: C309- EC8563 Networks Laboratory

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C309.1 | 3 | 3 | 2 | 3 | 3 | 3 | - | - | - | - | 1 | 3 | 3 | 3 | 2 |
| C309.2 | 3 | 3 | 3 | 3 | 3 | 2 | - | - | - | - | 1 | 1 | 3 | 2 | 1 |
| C309.3 | 3 | 3 | 2 | 3 | 3 | 2 | - | - | - | - | 2 | 2 | 3 | 3 | 1 |
| C309.4 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 2 | 3 | 2 | 2 |
| C309.5 | 3 | 2 | 3 | 3 | 2 | 2 | - | - | - | - | 2 | 2 | 3 | 3 | 3 |
| Average | 3.0 | 2.8 | 2.6 | 3.0 | 2.8 | 2.4 | 0 | 0 | 0 | 0 | 1.8 | 2.0 | 3.0 | 2.6 | 1.8 |

Course Name: C310- EC8691 Microprocessors and Microcontrollers

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C310.1 | 3 | 3 | 2 | 3 | 3 | 3 | - | - | - | - | 3 | 1 | 3 | 3 | 2 |
| C310.2 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 1 | 3 | 3 | 2 | 1 |
| C310.3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 1 | 3 | 3 | 3 | 3 |
| C310.4 | 3 | 3 | 2 | 3 | 2 | 3 | - | - | - | - | 3 | 3 | 3 | 2 | 2 |
| C310.5 | 3 | 2 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 1 | 3 | 3 | 3 |
| Average | 3.0 | 2.8 | 2.6 | 3.0 | 2.6 | 3.0 | 0 | 0 | 0 | 0 | 2.2 | 2.2 | 3.0 | 2.6 | 2.2 |

Course Name: C311- EC8095 VLSI Design

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| C311.1 | 3 | 3 | 2 | 3 | 1 | 3 | - | - | - | - | 1 | 1 | 2 | 1 | 2 |
| C311.2 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 3 | 3 | 3 | 1 |

| | | | | | | | | | | | | | | | |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C311.3 | 3 | 3 | 2 | 3 | 3 | 1 | - | - | - | - | 2 | 3 | 2 | 3 | 3 |
| C311.4 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 3 | 3 | 3 | 1 |
| C311.5 | 3 | 2 | 3 | 2 | 1 | 2 | - | - | - | - | 1 | 3 | 2 | 3 | 3 |
| Average | 3.0 | 2.8 | 2.6 | 2.8 | 2.0 | 2.4 | 0 | 0 | 0 | 0 | 2.0 | 2.6 | 2.4 | 2.6 | 2.0 |

Course Name: C312- EC8652 Wireless Communication

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C312.1 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 1 | 3 | 2 | 2 |
| C312.2 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 3 | 3 | 2 | 2 |
| C312.3 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 1 | 2 | 2 | 2 |
| C312.4 | 2 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 1 | 3 | 3 | 3 | 3 |
| C312.5 | 2 | 3 | 2 | 2 | 2 | 3 | - | - | - | - | 1 | 3 | 3 | 2 | 3 |
| Average | 2.6 | 3.0 | 2.8 | 2.8 | 2.4 | 3.0 | 0 | 0 | 0 | 0 | 2.2 | 2.2 | 2.8 | 2.2 | 2.4 |

Course Name: C313- MG8591 Principles of Management

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C313.1 | - | - | - | - | - | 3 | 3 | 2 | - | 2 | 2 | 1 | - | - | - |
| C313.2 | - | - | - | - | - | 3 | 3 | 3 | - | 2 | 1 | 3 | - | - | - |
| C313.3 | - | - | - | - | - | 3 | 3 | 3 | - | 3 | 2 | 3 | - | - | - |
| C313.4 | - | - | - | - | - | 3 | 3 | 2 | - | 2 | 2 | 3 | - | - | - |
| C313.5 | - | - | - | - | - | 3 | 2 | 2 | - | 2 | 3 | 2 | - | - | - |
| Average | 0 | 0 | 0 | 0 | 0 | 3.0 | 2.8 | 2.4 | 0 | 2.2 | 2.0 | 2.4 | 0 | 0 | 0 |

Course Name: C314- EC8651 Transmission Lines and RF Systems

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C314.1 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 1 | 2 | 2 | 1 | 2 |
| C314.2 | 3 | 2 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 1 | 1 |
| C314.3 | 3 | 3 | 3 | 3 | 1 | 3 | - | - | - | - | 3 | 2 | 2 | 1 | 3 |

| | | | | | | | | | | | | | | | |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C314.4 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 1 | 3 |
| C314.5 | 3 | 2 | 3 | 2 | 2 | 3 | - | - | - | - | 1 | 2 | 2 | 1 | 3 |
| Average | 3.0 | 2.6 | 3.0 | 2.8 | 1.8 | 3.0 | 0 | 0 | 0 | 0 | 2.2 | 2.0 | 2.4 | 1.0 | 2.4 |

Course Name: C315- Naan Muthalvan

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| C315.1 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| C315.2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 1 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| C315.3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| C315.4 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| C315.5 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 1 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| Average | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 | 1.6 | 3.0 | 3.0 | 3.0 | 2.0 | 3.0 | 3.0 | 3.0 |

Course Name: C316- EC8681 Microprocessors and Microcontrollers Laboratory

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C316.1 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 1 | 2 | 3 | 3 | 2 |
| C316.2 | 2 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | 3 | 3 | 3 | 1 |
| C316.3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | 3 | 2 | 3 | 3 |
| C316.4 | 2 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 1 | 1 | 3 | 3 | 2 |
| C316.5 | 3 | 3 | 2 | 2 | 3 | 2 | - | - | - | - | 3 | 3 | 3 | 3 | 3 |
| Average | 2.6 | 3.0 | 2.8 | 2.8 | 3.0 | 2.8 | 0 | 0 | 0 | 0 | 1.8 | 2.4 | 2.8 | 3.0 | 2.2 |

Course Name: C317- EC8661 VLSI Design Laboratory

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| C317.1 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 2 | 2 | 3 | 2 | 3 |
| C317.2 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | 3 | 3 | 2 | 3 |
| C317.3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 2 | 2 | 2 | 3 |
| C317.4 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | 2 | 3 | 1 | 3 |

| | | | | | | | | | | | | | | | |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C317.5 | 3 | 3 | 2 | 2 | 1 | 3 | - | - | - | - | 2 | 2 | 3 | 2 | 3 |
| Average | 3.0 | 3.0 | 2.8 | 2.8 | 2.4 | 3.0 | 0 | 0 | 0 | 0 | 2.2 | 2.2 | 2.8 | 1.8 | 3.0 |

Course Name: C318- EC8611 Technical Seminar

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|----------|------------|----------|------------|------------|------------|----------|------------|------------|------------|------------|------------|------------|------------|------------|
| C318.1 | - | 3 | - | 3 | 3 | 3 | - | 2 | 2 | 2 | 3 | 3 | 3 | 1 | 3 |
| C318.2 | - | 3 | - | 3 | 3 | 3 | - | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 |
| C318.3 | - | 3 | - | 3 | 3 | 3 | - | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| C318.4 | - | 3 | - | 3 | 3 | 3 | - | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 |
| C318.5 | - | 3 | - | 3 | 3 | 3 | - | 2 | 2 | 2 | 3 | 3 | 2 | 3 | 3 |
| Average | 0 | 3.0 | 0 | 3.0 | 3.0 | 3.0 | 0 | 2.0 | 2.0 | 2.0 | 3.0 | 3.0 | 2.8 | 2.2 | 3.0 |

Course Name: C319- HS8581 Professional Communication

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|----------|----------|----------|----------|----------|------------|----------|----------|----------|------------|----------|------------|----------|----------|----------|
| C319.1 | - | - | - | - | - | 3 | - | - | - | 3 | - | 2 | - | - | - |
| C319.2 | - | - | - | - | - | 3 | - | - | - | 3 | - | 2 | - | - | - |
| C319.3 | - | - | - | - | - | 3 | - | - | - | 3 | - | 2 | - | - | - |
| C319.4 | - | - | - | - | - | 3 | - | - | - | 3 | - | 2 | - | - | - |
| C319.5 | - | - | - | - | - | 3 | - | - | - | 3 | - | 2 | - | - | - |
| Average | 0 | 0 | 0 | 0 | 0 | 3.0 | 0 | 0 | 0 | 3.0 | 0 | 2.0 | 0 | 0 | 0 |

Course Name: C401- EC8701 Antennas and Microwave Engineering

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C401.1 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 1 | 2 |
| C401.2 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 2 | 1 |
| C401.3 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 3 | 3 |
| C401.4 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 2 | 2 |
| C401.5 | 3 | 3 | 3 | 2 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 3 | 3 |
| Average | 3.0 | 3.0 | 3.0 | 2.8 | 2.0 | 3.0 | 0 | 0 | 0 | 0 | 3.0 | 2.0 | 3.0 | 2.2 | 2.2 |

Course Name: C402- EC8751 Optical Communication

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|----------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C402.1 | 3 | 3 | 3 | 3 | - | 3 | - | - | - | - | 1 | 2 | 3 | 2 | 2 |
| C402.2 | 3 | 3 | 3 | 3 | - | 3 | - | - | - | - | 2 | 2 | 3 | 1 | 2 |
| C402.3 | 3 | 3 | 3 | 3 | - | 3 | - | - | - | - | 3 | 2 | 3 | 2 | 2 |
| C402.4 | 3 | 3 | 3 | 3 | - | 3 | - | - | - | - | 3 | 2 | 3 | 1 | 3 |
| C402.5 | 3 | 3 | 3 | 2 | - | 3 | - | - | - | - | 1 | 2 | 3 | 2 | 3 |
| Average | 3.0 | 3.0 | 3.0 | 2.8 | 0 | 3.0 | 0 | 0 | 0 | 0 | 2.0 | 2.0 | 3.0 | 1.6 | 2.4 |

Course Name: C403- EC8791 Embedded and Real Time Systems

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C403.1 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 2 | 3 | 2 | 3 | 3 |
| C403.2 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 2 | 3 | 3 | 2 | 3 |
| C403.3 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 2 | 3 | 3 |
| C403.4 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 3 | 2 | 3 |
| C403.5 | 3 | 3 | 3 | 2 | 3 | 3 | - | - | - | - | 2 | 2 | 2 | 3 | 3 |
| Average | 3.0 | 3.0 | 3.0 | 2.8 | 2.2 | 3.0 | 0 | 0 | 0 | 0 | 2.4 | 2.4 | 2.4 | 2.6 | 3.0 |

Course Name: C404-EC8702 Ad hoc and Wireless Sensor Networks

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C404.1 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 2 | 2 | 1 | 3 |
| C404.2 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 2 | 2 | 3 | 2 | 3 |
| C404.3 | 3 | 3 | 3 | 3 | 1 | 3 | - | - | - | - | 3 | 3 | 2 | 2 | 3 |
| C404.4 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 2 | 2 | 3 | 2 | 3 |
| C404.5 | 2 | 1 | 3 | 2 | 2 | 3 | - | - | - | - | 3 | 2 | 2 | 3 | 3 |
| Average | 2.8 | 2.6 | 3.0 | 2.8 | 1.8 | 3.0 | 0 | 0 | 0 | 0 | 2.6 | 2.2 | 2.4 | 2.0 | 3.0 |

Course Name: C405- OME754 Industrial Safety

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|

| | | | | | | | | | | | | | | | |
|----------------|----------|----------|----------|----------|----------|----------|------------|------------|------------|------------|------------|------------|----------|----------|----------|
| C405.1 | - | - | - | - | - | - | 2 | 3 | 3 | 3 | 3 | 3 | - | - | - |
| C405.2 | - | - | - | - | - | - | 2 | 3 | 3 | 3 | 3 | 3 | - | - | - |
| C405.3 | - | - | - | - | - | - | 2 | 2 | 3 | 3 | 3 | 2 | - | - | - |
| C405.4 | - | - | - | - | - | - | 2 | 2 | 3 | 3 | 1 | 3 | - | - | - |
| C405.5 | - | - | - | - | - | - | 2 | 2 | 3 | 2 | 2 | 3 | - | - | - |
| Average | 0 | 0 | 0 | 0 | 0 | 0 | 2.0 | 2.4 | 3.0 | 2.8 | 2.4 | 2.8 | 0 | 0 | 0 |

Course Name: C406- Naan Muthalvan

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C406.1 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| C406.2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 1 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| C406.3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| C406.4 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| C406.5 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 1 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| Average | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 | 1.6 | 3.0 | 3.0 | 3.0 | 2.0 | 3.0 | 3.0 | 3.0 |

Course Name: C407-EC8711 Embedded Laboratory

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C407.1 | 3 | 3 | 3 | 3 | 1 | 3 | - | - | - | - | 3 | 3 | 3 | 3 | 3 |
| C407.2 | 3 | 3 | 3 | 3 | 1 | 3 | - | - | - | - | 3 | 3 | 3 | 2 | 3 |
| C407.3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 3 | 3 | 3 | 3 |
| C407.4 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 3 | 3 | 2 | 3 |
| C407.5 | 3 | 2 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 3 | 3 | 3 | 3 |
| Average | 3.0 | 2.8 | 3.0 | 3.0 | 2.2 | 3.0 | 0 | 0 | 0 | 0 | 3.0 | 3.0 | 3.0 | 2.6 | 3.0 |

Course Name: C408-EC8761Advanced Communication Laboratory

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C408.1 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 3 | 3 | 3 | 2 |

| | | | | | | | | | | | | | | | |
|----------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|------------|------------|------------|------------|------------|
| C408.2 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | 2 | 3 | 3 | 2 |
| C408.3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | 2 | 3 | 2 | 2 |
| C408.4 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | 2 | 3 | 3 | 3 |
| C408.5 | 3 | 3 | 3 | 2 | 3 | 2 | - | - | - | - | 2 | 2 | 3 | 2 | 3 |
| Average | 3.0 | 3.0 | 3.0 | 2.8 | 3.0 | 2.8 | 0 | 0 | 0 | 0 | 2.2 | 2.2 | 3.0 | 2.6 | 2.4 |

Course Name: C409-EC8093 Digital Image Processing

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C409.1 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | 1 | 3 | 1 | 2 |
| C409.2 | 3 | 2 | 2 | 3 | 3 | 3 | - | - | - | - | 2 | 3 | 3 | 2 | 1 |
| C409.3 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | 3 | 3 | 1 | 3 |
| C409.4 | 3 | 3 | 2 | 3 | 3 | 3 | - | - | - | - | 2 | 3 | 3 | 2 | 2 |
| C409.5 | 3 | 2 | 3 | 3 | 2 | 3 | - | - | - | - | 2 | 1 | 3 | 3 | 3 |
| Average | 3.0 | 2.6 | 2.6 | 3.0 | 2.8 | 3.0 | 0 | 0 | 0 | 0 | 2.2 | 2.2 | 3.0 | 1.8 | 2.2 |

Course Name: C410-EC8094 Satellite Communication

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C410.1 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | 1 | 3 | 3 | 2 |
| C410.2 | 3 | 2 | 3 | 3 | 2 | 3 | - | - | - | - | 2 | 3 | 3 | 3 | 1 |
| C410.3 | 3 | 3 | 3 | 3 | 1 | 3 | - | - | - | - | 2 | 3 | 3 | 3 | 3 |
| C410.4 | 3 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 2 | 2 | 3 | 3 | 2 |
| C410.5 | 3 | 2 | 3 | 2 | 2 | 3 | - | - | - | - | 2 | 2 | 3 | 2 | 3 |
| Average | 3.0 | 2.6 | 3.0 | 2.8 | 1.8 | 3.0 | 0 | 0 | 0 | 0 | 2.2 | 2.2 | 3.0 | 2.8 | 2.2 |

Course Name: C411-EC8811 Project Work

| CO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C411.1 | 3 | 3 | 3 | 3 | 3 | 3 | - | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| C411.2 | 3 | 3 | 3 | 3 | 3 | 3 | - | 1 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |

| | | | | | | | | | | | | | | | |
|----------------|------------|------------|------------|------------|------------|------------|----------|------------|------------|------------|------------|------------|------------|------------|------------|
| C411.3 | 3 | 3 | 3 | 3 | 3 | 3 | - | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| C411.4 | 3 | 3 | 3 | 3 | 3 | 3 | - | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| C411.5 | 3 | 3 | 3 | 3 | 3 | 3 | - | 1 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| Average | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0 | 1.6 | 3.0 | 3.0 | 3.0 | 2.0 | 3.0 | 3.0 | 3.0 |