



R18 Regulations

II Year/I Sem (R18)

Course Name: C201 Engineering Mechanics (EE301ES)	
CO1	Explain the resolution of a System of Forces, Compute their resultant and Solve problems using equations of equilibrium
CO2	Perform analysis of bodies lying on rough surfaces
CO3	Locate the centroid of a body and compute the area moment of inertia and mass moment of inertia of standard and composite sections
CO4	Explain kinetics and kinematics of particles, projectiles, curvilinear motion, censorial motion and plane motion of rigid bodies
CO5	Explain the concepts of work-energy method and its applications to translation, rotation and plane motion and the concept of vibrations

Course Name: C202 Electrical Circuit Analysis (EE302PS)	
CO1	Analyse the Kirchhoff's laws, circuit theorems and node voltage and mesh current methodology to solve simple DC circuits.
CO2	Analyse the electric circuit behaviour due to sudden changes in input/circuit parameters during switching operations.
CO3	Able to calculate and analyse 3-phase balanced and unbalanced Y/ Δ circuits. Able to demonstrate and analyse single phase RLC circuits.
CO4	Explain kinetics and kinematics of particles, projectiles, curvilinear motion, censorial motion and plane motion of rigid bodies
CO5	Solve two-port network parameters and draw equivalent circuit of given two -port network.

Course Name: C203 ANALOG ELECTRONICS (EE303PC)	
CO1	Understand the operation of different types of diodes and their applications
CO2	Understand and analyse the working of BJT and FET, its various configuration and their applications.
CO3	Design and analyse different types of feedback circuits
CO4	Analyse various Multi-Stage and Power Amplifiers circuits and their freq. Responses
CO5	Understand the internal block diagram of operational amplifier and its characteristics and applications

Course Name: C204 ELECTRICAL MACHINES-I (EE304PC)	
CO1	Analyse DC generators construction and operation, Characteristics and Understand the effects of armature reaction
CO2	Analyse DC motors construction and operation and Speed control of DC motors
CO3	Carry out different testing methods to predetermine the efficiency of DC machines
CO4	Understand the construction and operation of 1-phase transformers.
CO5	Analyse the Testing of Transformers and Poly-Phase Transformers

Course Name: C205 ELECTROMAGNETIC FIELDS(EE305PC)	
CO1	Understand different laws in electrostatic fields.
CO2	Study behaviour of conductors, insulators, Dielectrics and capacitance.
CO3	Learn complete behaviour of Magneto static field and its laws and also learn about Maxwell's equation.
CO4	Learn about Force in magnetic fields and magnetic potential and self and mutual inductance.
CO5	Understand time varying fields and Analyse Maxwell equations for time variant fields.

Course Name: C206 ELECTRICAL MACHINES LAB-I (EE306PC)	
CO1	Analyse the characteristics of DC shunt generator DC compound generator and calculate critical resistance and critical speed
CO2	Examine load characteristics of DC shunt, series and compound motor and identify its maximum efficiency operating point
CO3	Predict the efficiency of DC shunt machine in different methods
CO4	Understand the operation of DC machines in load sharing
CO5	Separate Iron losses of DC Machines into different components.

Course Name: C207 ANALOG ELECTRONICS LAB(EE307PC)	
CO1	Know the characteristics, utilization of various components
CO2	Understand the biasing techniques
CO3	Design and analyse various rectifiers, small signal amplifier circuits
CO4	Design sinusoidal and non-sinusoidal oscillators
CO5	A thorough understanding, functioning of OP-AMP, design OP-AMP based circuits with linear integrated circuits

Course Name: C208 ELECTRICAL CIRCUITS LAB(EE308PC)	
CO1	Apply Network theorems to Simple and complex circuits.
CO2	Plot the locus diagram of series RL and RC circuits.
CO3	Determine the self-inductance and Mutual inductance of the coil and Calculate Two port network parameters.
CO4	Measurement of three phase active power and reactive power
CO5	Analyse of Non sinusoidal wave form signals using Harmonic Analyser.

Course Name: C209 GENDER SENSITIZATION LAB(MC309)	
CO1	Show better understanding of important issues related to gender in contemporary India
CO2	Explain basic dimensions of the biological, sociological, psychological and legal aspects of gender
CO3	Identify how gender discrimination works in our society and how to counter it.
CO4	Assess insight into the gendered division of labour and its relation to politics and economics
CO5	Develop a sense of appreciation of women in all walks of life.

II Year/II Sem (R18)

Course Name: C211 LTNMCV (MA401BS)	
CO1	Use the Laplace transforms techniques for solving ODE's
CO2	Estimate the value for the given data using interpolation and Find the root of a given equation.
CO3	Identify the numerical solutions for a given ODE's
CO4	Analyse the complex function with reference to their analyticity, integration using Cauchy's
CO5	Explain Taylor's and Laurent's series expansions of complex function

Course Name: C212 ELECTRICAL MACHINES-II (EE402PC)	
CO1	Analyse constant, pulsating and revolving magnetic fields
CO2	Describe the operation and performance of three phase induction motors
CO3	Understand the operation and performance characteristics of synchronous generator
CO4	Demonstrate the construction and operation of synchronous motor
CO5	Understand the construction, starting methods and torque speed characteristics of various single phase induction motors

Course Name: C213 DIGITAL ELECTRONICS (EE403PC)	
CO1	Understand working of logic families and logic gates.
CO2	Design and implement Combinational and Sequential logic circuits.
CO3	Understand the process of Ana log to Digital conversion and Digital to Ana log conversion.
CO4	Be able to use PLDs to implement the given logical problem

Course Name: C214 CONTROL SYSTEMS (EE404PC)	
CO1	Evaluate unstable open loop plants and processes and design specific compensators to provide closed loop stability.
CO2	Analyse transfer functions for electro-dynamic plants and machines, with electrical, electro- mechanical, electro-pneumatic, and electro-hydraulic elements from plant site collected data
CO3	Use stability analysis in S –Domain.
CO4	Use frequency response in the analysis of control systems
CO5	Solve problems relating to stability of control systems using various methods.

Course Name: C215 POWER SYSTEMS-I (EE405PC)	
CO1	Understand the operation of conventional generating stations and renewable sources of electrical power.
CO2	Evaluate the power tariff methods
CO3	Understand the concepts of Underground cables and Insulators.
CO4	Determine the electrical circuit parameters of transmission lines
CO5	Understand the Concept of A.C. and D.C. distribution systems

Course Name: C216 DIGITAL ELECTRONICS LAB (EE406PC)	
CO1	Understand working of logic families and logic gates.
CO2	Design and implement Combinational and Sequential logic circuits.
CO3	Understand the process of Ana log to Digital conversion and Digital to Ana log conversion
CO4	Be able to use PLDs to implement the given logical problem

Course Name: C217 ELECTRICAL MACHINES LAB-II (EE407PC)	
CO1	Examine the load characteristics of single phase transformer and separate the different losses and to find the efficiency
CO2	Predetermine the equivalent circuit parameters of single phase transformer in two different methods and compare the results
CO3	Mark the V and inverted V characteristics of three phase synchronous machine at different load condition.
CO4	Compare the voltage regulation of three phase alternator in different methods and compare the results
CO5	Evaluate performance characteristics of single phase, three phase induction motor

Course Name: C218 CONTROL SYSTEMS LAB (EE408PC)	
CO1	Examine the speed torque characteristics of AC Servomotor
CO2	Analyse the system performance by selecting a suitable controller and/or a compensator for a specific application
CO3	Evaluate Transfer function for DC Generator & DC motor.
CO4	Design of lead, lag, lag-lead compensator to improve characteristics of control system.
CO5	Apply time domain techniques to assess the system performance and Analysis of Linear time Invariant system using MATLAB.

Course Name: C219 CONSTITUTION OF INDIA (MC409)	
CO1	Understand the emergence and evolution of Indian Constitution
CO2	Understand the structure and composition of Indian Constitution
CO3	Understand and analyse federalism in the Indian context.
CO4	Understand and analyse the three organs of the state in the contemporary scenario.
CO5	Understand and Evaluate the Indian Political scenario amidst the emerging challenges

III Year/I Sem (R18)

Course Name: C301 POWER ELECTRONICS (EE501PE)	
CO1	Express the characteristics of SCR, BJT, MOSFET and IGBT
CO2	Analyse the single phase and three phase rectifiers
CO3	Analyse the chopper circuit and Design buck, Boost converter
CO4	Design and Control Inverters at different load conditions and Apply PWM techniques for voltage control
CO5	Analyse AC voltage controller and cyclo-converter

Course Name: C302 POWER SYSTEMS-II (EE502PE)	
CO1	Analyse transmission line performance
CO2	Apply load compensation techniques to control reactive power
CO3	Understand the application of per unit quantities
CO4	Design over voltage protection and insulation coordination
CO5	Determine the fault currents for symmetrical and unbalanced faults

Course Name: C303 MEASUREMENTS & INSTRUMENTATION (EE50PE)	
CO1	Identify various effects on measuring instruments used to measure electrical quantity, Compare PMMC and MI instruments and Explain the instruments works on electrostatic effect principle.
CO2	Construct and Apply the potentiometer in measurement of voltage, current, resistance and power and analyse current transformer and potential transformer.
CO3	Demonstrate the construction and operation of single phase wattmeter, three phase wattmeter and energy meter
CO4	Compute the unknown resistance, inductance and capacitance using various DC and AC bridges.
CO5	Design a suitable galvanometer.

Course Name: C304 HIGH VOLTAGE ENGINEERING (EE512PE)	
CO1	Demonstrate the physics related to various breakdown processes in solid, liquid and gaseous insulating materials.
CO2	Analyse the generation of D. C., A.C., & Impulse voltages.
CO3	Analyse the measurement of D. C., A.C., & Impulse voltages.
CO4	Understand over-voltages arise in a power system, and Assess protection against these over voltages
CO5	Testing on H. V. equipment and on insulating materials, as per the standards.

Course Name: C305 BUSINESS ECONOMICS & FINANCIAL ANALYSIS (SM504MS)	
CO1	Develop the Knowledge on the various forms of Business.
CO2	Assess the economic variables on the Business
CO3	Discuss the terms such as Demand, Supply, Production, Cost, Market Structure and Pricing
CO4	Analyse the firm's present financial position with the help of financial ratios.
CO5	Assess the firm's financial position by analysing the financial statement of the company

Course Name: C306 POWER SYSTEMS SIMULATION LAB (EE505PC)	
CO1	Perform various load flow technique.
CO2	Understand Different protection methods
CO3	Analyse the experimental data and draw the conclusions.

Course Name: C307 POWER ELECTRONICS LAB (EE506PC)	
CO1	Analyse the characteristics of SCR, BJT, MOSFET and firing circuits of SCR
CO2	Interpret and Compare Single phase and three phase Convertors and Inverter circuits at different load conditions
CO3	Evaluate commutation circuits for SCR
CO4	Analyse AC voltage controller circuits, cyclo-convertor and chopper circuits practically

Course Name: C308 MEASUREMENTS AND INSTRUMENTATION LAB (EE507PC)	
CO1	Design and construct suitable bridge to measure inductance, capacitance & resistance.
CO2	Demonstrate energy meter and dynamometer power factor meter and LPF wattmeter
CO3	Demonstrate energy meter and dynamometer power factor meter and LPF wattmeter
CO4	Test C.T and P.T and oil testing of transformer
CO5	Experiment with LVDT and Strain gauge

Course Name: C309 ADVANCE COMMUNICATION SKILLS LAB (EN508HS)	
CO1	Apply appropriate communication skills across settings, purposes and audiences
CO2	Demonstrate knowledge of communication theory and applications.
CO3	Practice critical thinking to develop innovative and well-founded perspectives related to the students emphasis. Build and maintain healthy and effective relationships.
CO4	Use technology to communicate effectively in various settings and contexts
CO5	Demonstrate appropriate and professional ethical behaviour.

Course Name: C310 INTELLECTUAL PROPERTY RIGHTS (MC510)	
CO1	Identify different types of Intellectual Properties (IPs), the right of ownership, scope of protection as well as the ways to create and to extract value from IP
CO2	Recognize the crucial role of IP in organizations of different industrial sectors for the purposes of product and technology development.
CO3	Identify activities and constitute IP infringements and the remedies available to the IP owner and describe the precautions steps to be taken to prevent infringement of proprietary rights in products and technology development
CO4	Be able to anticipate and subject to critical analysis arguments relating to the development and reform of intellectual property right institutions and their likely impact on creativity and innovation.
CO5	Be able to demonstrate a capacity to identify, apply and assess ownership rights and marketing protection under intellectual property law as applicable to information, ideas, new products and product marketing;

III Year/II Sem (R18)

Course Name: C311 ENTREPRENURSHIP (CS600OE)	
CO1	To obtain comprehensive perspective of inclusive learning on entrepreneurship
CO2	Create ability to learn and implement the fundamentals of Entrepreneurship.
CO3	It enables students to learn the basics of entrepreneurship which will help them to provide vision for their own Start-up.
CO4	It enables students to learn the basics of entrepreneurial development which will help them to provide vision for their own Start-up.
CO5	Help the students to learn the entrepreneurship and entrepreneurial development which will help them to provide vision for their own Start-up.

Course Name: C312 POWER SEMICONDUCTOR DRIVES (EE612PE)	
CO1	Understand the speed control of DC motor with single phase and three phase controlled rectifiers.
CO2	Analyse the speed torque characteristics of DC motors for various firing angles. Analyse the four quadrant operation of DC drives. Understand the braking methods of DC drives
CO3	Apply the knowledge of dual converters for four quadrant operation of DC motors. Understand the control techniques for the operation of choppers. Apply the knowledge of Choppers for speed control of DC Motors. Analyse the four quadrant operation of DC motors with choppers.
CO4	Understand the speed control of induction motors with variable voltage control, variable frequency control, with rotor resistance control.
CO5	Apply the knowledge of cycle converters, VSI, CSI for speed control of synchronous Motors.

Course Name: C313 SIGNALS & SYSTEMS (EE601PC)	
CO1	Differentiate various signal functions
CO2	Represent any arbitrary signal in time and frequency domain.
CO3	Understand the characteristics of linear time invariant systems.
CO4	Analyse the signals with different transform technique.

Course Name: C314 MICROPROCESSORS & MICROCONTROLLERS (EE602PC)	
CO1	Explain Architecture of 8086
CO2	Develop Simple Assembly language Programs using instruction set of 8086.
CO3	Interface external peripherals and I/O devices with microprocessor
CO4	Distinguish microcontroller with microprocessor.
CO5	Design and develop Specific applications using 8051 microcontroller

Course Name: C315 POWER SYSTEM PROTECTION (EE603PC)	
CO1	list various Relays used in power system and identify different protection zones and protection schemes in power system
CO2	Differentiate various relays including distance and Over-current protection schemes
CO3	Summarize the protection schemes for generator, transformer, motor, feeder and transmission lines and analyse pilot relaying Schemes
CO4	Explain the working principle of static relays
CO5	List various circuit breakers used in power system

Course Name: C316 POWER SYSTEM OPERATION & CONTROL (EE604PC)	
CO1	Understand and formulate power system constraints that include most of the following: economic, environmental, operability and security.
CO2	Design optimum operation and scheduling of thermal and hydro plants.
CO3	Model turbine, governor and excitation system
CO4	Model the single area and two area LFC system and Solve economic dispatch, unit commitment, load frequency control and automatic voltage generation using conventional method
CO5	Understand the significance of reactive power control in power systems to maintain quality.

Course Name: C317 POWER SYSTEMS LAB (EE605PC)	
CO1	Perform various load flow technique.
CO2	Understand Different protection methods
CO3	Analyse the experimental data and draw the conclusions.

Course Name: C318 MICROPROCESSORS AND MICROCONTROLLERS LAB (EE606PC)	
CO1	Write assembly language programs for different operations using 8086/8051 instructions
CO2	Interface different peripherals with 8086/8051
CO3	Perform serial and parallel communication between microprocessors

Course Name: C319 SIGNALS AND SYSTEMS LAB (EE607PC)	
CO1	Understand the concepts of continuous time and discrete time systems
CO2	Analyse systems in complex frequency domain
CO3	Understand sampling theorem and its implications.

Course Name: C320 ENVIRONMENTAL SCIENCE (MC609)	
CO1	Define the scope and importance of ecosystem, its values and services.
CO2	Summarize the significance of various natural resources and its management
CO3	Make use of a comprehensive study of the world's biodiversity and the importance of its conservation.
CO4	Categorize different types of pollutions, their control measures and effective methods of waste management
CO5	Assess global environmental problems and come out with best possible solutions, interpret environmental laws and sustainable development

IV Year/I Sem (R18)

Course Name: C401 PYTHON PROGRAMMING	
CO1	Examine Python syntax and semantics and be fluent in the use of Python flow control and functions.
CO2	Demonstrate proficiency in handling Strings and File Systems.
CO3	Create, run and manipulate Python Programs using core data structures like Lists, Dictionaries and use Regular Expressions
CO4	Interpret the concepts of Object-Oriented Programming as used in Python.
CO5	Implement exemplary applications related to Network Programming, Web Services and Databases in Python.

Course Name: C402 ELECTRICAL AND HYBRID VEHICLES (EE713PE)	
CO1	Understand the basics concepts of Electric vehicle performance and Characteristics
CO2	Analyse the models to describe hybrid vehicles and their performance
CO3	Understand the basic concepts of electric vehicles and popular traction systems
CO4	Analyse the various energy storage methodologies and systems
CO5	Understand the different strategies related to energy storage and Management systems

Course Name: C403 HVDC TRANSMISSION(EE721PE)	
CO1	Compare EHV AC and HVDC system and to describe various types of DC links
CO2	Analyse Grates circuit for rectifier and inverter mode of operation
CO3	Categorize various methods for the control of HVDC systems and to perform power flow analysis in AC/DC systems
CO4	Summarize various protection methods for HVDC systems
CO5	Classify Harmonics and Design different types of filters

Course Name: C404 FUNDAMENTALS OF MANAGEMENT FOR ENGINEERS (SM701MS)	
CO1	Explain the significance of management in their profession.
CO2	Plan the various functions and take decisions on the problems.
CO3	Organize the human resources in the organization
CO4	Develop the leadership skills and explain how motivational factors influence employees
CO5	Inspect the various activities with respect to controlling techniques.

Course Name: C405 ELECTRICAL AND ELECTRONICS DESIGN LAB (EE701PC)	
CO1	Fabricate basic electrical circuit elements/networks
CO2	Trouble shoot the electrical circuits
CO3	Design filter circuit for application
CO4	Get hardware skills such as soldering, winding etc.
CO5	Get debugging skills.

Course Name: C406 INDUSTRIAL ORIENTED MINI PROJECT (EE702PC)	
CO1	Identify basic requirements for a application and propose a cost effective solution
CO2	Build knowledge through practical assignments and learn the various design methods for solving a problem analysis
CO3	Develop skill to build design techniques for various problem analysis
CO4	Summarize the fundamental concepts and techniques used in mini project
CO5	Make up project enables the student to understand the business process

Course Name: C407 SEMINAR (EE703PC)	
CO1	Demonstrate Oral presentation skills
CO2	Improve Time management
CO3	Develop audience-centered presentations meeting concrete professional objectives.

Course Name: C408 PROJECT STAGE-1 (EE704PC)	
CO1	Develop a design solution for a set of requirements
CO2	Develop Prototype, Test and validate the design as per requirement
CO3	Work as a responsible member and possibly a leader of a team in developing a project
CO4	Analyze the Travelling wave expression and solution.
CO5	Self-learn new tools, algorithms, and/or techniques that contribute to the software solution of the project



R18 Regulations

II Year/I Sem (R18)

Course Name: C201 Engineering Mechanics (EE301ES)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	2	2	2	2	-	-	2	-	2	-	-	2	2	-
CO2	2	1	2	2	-	-	1	-	1	-	-	2	1	-
CO3	2	2	2	2	-	-	-	-	-	-	-	2	2	-
CO4	2	2	2	2	-	-	-	-	2	-	-	2	2	-
CO5	2	2	1	2	-	-	1	-	1	-	-	2	1	-
Average	2	1.8	1.5	2	-	-	0.8	-	1.2	-	-	2	1.6	-

Course Name: C202 Electrical Circuit Analysis (EE302PS)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	2	3	3	2	-	-	-	-	-	-	-	2	2	-
CO2	-	3	-	3	-	-	-	-	-	-	-	3	-	3
CO3	2	3	3	3	-	-	-	-	-	-	-	-	-	3
CO4	3	3	-	3	-	-	-	-	-	-	-	-	-	-
CO5	-	2	3	3	-	-	-	-	-	-	-	2	3	-
Average	2.33	2.8	3	2.8	-	-	-	-	-	-	-	2.33	2.5	3

Course Name: C203 ANALOG ELECTRONICS (EE30PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	2	2	2	1	1	-	-	-	-	-	-	-	1	1
CO2	2	1	1	1	1	-	-	-	-	-	-	-	1	1
CO3	2	2	2	1	1	-	-	-	-	-	-	-	1	1
CO4	2	2	2	1	1	-	-	-	-	-	-	-	1	1
CO5	2	1	1	1	1	-	-	-	-	-	-	-	1	1
Average	2	1.6	1.6	1	1	-	-	-	-	-	-	-	1	1

Course Name: C204 ELECTRICAL MACHINES-I (EE304PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	3	3	2	3	-	-	-	-	-	-	-	3	3	-
CO2	3	3	2	3	-	-	-	-	-	-	-	3	3	-
CO3	-	2	2	-	-	-	-	-	-	-	-	2	-	2
CO4	2	2	2	-	-	-	-	-	-	-	-	2	-	3
CO5	3	3	2	3	-	-	-	-	-	-	-	3	3	-
Average	2.75	2.6	2	3	-	-	-	-	-	-	-	2.6	3	2.5

Course Name: C205 ELECTROMAGNETIC FIELDS(EE305PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	3	-	-	-	-	-	-	-	-	-	-	2	-	-
CO2	2	-	-	-	-	-	-	-	-	-	-	-	-	2
CO3	-	2	-	-	-	-	-	-	-	-	-	-	3	2
CO4	-	-	3	2	-	-	-	-	-	-	-	3	2	-
CO5	-	2	-	2	-	-	-	-	-	-	-	-	2	-
Average	2.5	2	3	2	-	-	-	-	-	-	-	2.5	2.33	2

Course Name: C206 ELECTRICAL MACHINES LAB-I(EE306PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	2	-	-	-	-	-	-	2	2	-	1	2	-
CO2	-	3	-	2	-	-	-	-	-	-	-	-	-	-
CO3	-	-	3	-	-	-	-	-	2	-	-	2	3	-
CO4	-	3	-	2	-	-	-	-	-	-	-	-	-	-
CO5	-	-	-	3	-	-	-	-	-	-	-	2	-	-
Average	-	2.66	3	2.33	-	-	-	-	2	2	-	1.66	2.5	-

Course Name: C207 ANALOG ELECTRONICS LAB(EE307PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	2	2	2	1	1	-	-	-	-	-	-	-	1	1
CO2	2	1	1	1	1	-	-	-	-	-	-	-	1	1
CO3	2	2	2	1	1	-	-	-	-	-	-	-	1	1
CO4	2	2	2	1	1	-	-	-	-	-	-	-	1	1
CO5	2	1	1	1	1	-	-	-	-	-	-	-	1	1
Average	2	1.6	1.6	1	1	-	-	-	-	-	-	-	1	1

Course Name: C208 ELECTRICAL CIRCUITS LAB(EE308PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	-	-	-	2	-	-	-	2	-	-	-	2	-
CO2	-	-	-	-	2	-	-	-	-	3	-	3	-	-
CO3	-	3	-	-	1	-	-	-	2	-	-	-	-	-
CO4	-	-	2	-	3	-	-	-	-	2	-	2	3	-
CO5	-	3	-	-	1	-	-	-	-	2	-	2	-	-
Average	-	3	2	-	1.8	-	-	-	2	2.33	-	2.33	2.5	-

Course Name: C209 GENDER SENSITIZATION LAB(MC309)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	1	-	-	-	-	1	-	1	1	1	-	1	-	-
CO2	1	-	-	-	-	1	-	1	1	-	-	1	-	-
CO3	-	-	-	-	-	1	-	-	-	-	-	1	-	-
CO4	-	-	-	-	-	1	-	1	1	-	-	1	-	-
CO5	-	-	-	-	-	1	-	1	-	-	-	1	-	-
Average	1	-	-	-	-	1	-	1	1	1	-	1	-	-

II Year/II Sem (R18)

Course Name: C211 LTNMCV (MA401BS)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	3	3	2	2	-	-	-	-	-	-	-	1		
CO2	3	3	2	2	-	-	-	-	-	-	-	1		
CO3	3	3	2	2	-	-	-	-	-	-	-	1		
CO4	3	2	2	2	-	-	-	-	-	-	-	1		
CO5	3	3	2	2	-	-	-	-	-	-	-	1		
Average	3	2.8	2	2								1		

Course Name: C212 ELECTRICAL MACHINES-II (EE402PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	2	2	-	-	-	-	-	-	-	-	-	2	1
CO2	-	3	3	2	2	-	-	-	-	-	-	2	2	2
CO3	-	2	2	-	2	-	-	-	-	-	-	3	-	2
CO4	-	3	3	2	2	-	-	-	-	-	-	2	2	2
CO5	-	3	3	2	-	-	-	-	-	-	-	3	2	2
Average	-	2.6	2.6	2	2	-	-	-	-	-	-	2.5	2	1.8

Course Name: C213 DIGITAL ELECTRONICS (EE403PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	3	2	2	2	2	-	-	-	-	-	-	-	2	2
CO2	3	2	2	2	2	-	-	-	-	-	-	-	1	2
CO3	3	3	2	3	3	-	-	-	-	-	-	-	1	2
CO4	3	2	3	3	3	-	-	-	-	-	-	-	2	3
Average	3	2.25	2.25	2.5	2.5	-	-	-	-	-	-	-	1.5	2.25

Course Name: C214 CONTROL SYSTEMS (EE404PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	3	2	-	-	-	-	-	-	-	-	2	-	-
CO2	-	2	-	1	-	-	-	-	-	-	-	3	-	-
CO3	-	-	2	2	-	-	-	-	-	-	-	-	-	2
CO4	-	3	2	-	-	-	-	-	-	-	-	-	-	2
CO5	-	-	3	3	-	-	-	-	-	-	-	2	-	-
Average	-	2.66	2.25	2	-	-	-	-	-	-	-	2.33	-	2

Course Name: C215 POWER SYSTEMS-I (EE405PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	3	2	-	-	-	-	2	-	-	-	-	-	2	1
CO2	-	3	3	2	2	-	-	-	-	-	-	2	2	2
CO3	3	2	2	-	2	-	-	-	-	-	-	3	-	2
CO4	-	3	3	2	2	-	-	-	-	-	-	2	2	2
CO5	3	3	3	2	-	-	-	-	-	-	-	3	2	2
Average	3	2.6	2.75	2	2	-	2	-	-	-	-	2.5	2	1.8

Course Name: C216 DIGITAL ELECTRONICS LAB(EE406PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	3	2	2	2	2	-	-	-	-	-	-	-	2	2
CO2	3	2	2	2	2	-	-	-	-	-	-	-	1	2
CO3	3	3	2	3	3	-	-	-	-	-	-	-	1	2
CO4	3	2	3	3	3	-	-	-	-	-	-	-	2	3
Average	3	2.25	2.25	2.5	2.5	-	-	-	-	-	-	-	1.5	2.25

Course Name: C217 ELECTRICAL MACHINES LAB-II (EE407PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	-	3	-	2	-	-	-	2	-	-	-	2	-
CO2	-	2	-	-	2	-	-	-	-	3	-	3	-	-
CO3	-	3	2	-	1	-	-	-	2	-	-	-	3	-
CO4	-	-	2	-	3	-	-	-	-	2	-	2	-	-
CO5	-	3	-	-	1	-	-	-	-	2	-	2	-	-
Average	-	2.6	2.33	-	1.8	-	-	-	2	2.33	-	2.33	2.5	-

Course Name: C218 CONTROL SYSTEMS LAB (EE408PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	-	3	-	2	-	-	-	2	-	-	-	-	-
CO2	-	-	-	-	2	-	-	-	-	3	-	3	2	-
CO3	-	2	2	-	1	-	-	-	2	-	-	-	2	-
CO4	-	-	2	-	3	-	-	-	-	2	-	2	2	-
CO5	-	3	-	-	1	-	-	-	-	2	-	2	-	2
Average	-	2.5	2.33	-	1.8	-	-	-	2	2.33	-	2.33	2	2

Course Name: C219 CONSTITUTION OF INDIA (MC409)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	-	-	-	-	3	2	3	3	-	-	3	-	-
CO2	-	-	-	-	-	2	3	3	3	-	-	3	-	-
CO3	-	-	-	-	-	3	-	3	3	-	-	3	-	-
CO4	-	-	-	-	-	2	-	2	3	-	-	3	-	-
CO5	-	-	-	-	-	3	-	3	3	-	-	3	-	-
Average	-	-	-	-	-	2.6	2.5	2.8	3	-	-	3	-	-

III Year/I Sem (R18)

Course Name: C301 POWER ELECTRONICS (EE501PE)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	3	-	2	-	2	-	-	-	-	-	-	3	-	-
CO2	2	3	3	2	3	-	-	-	-	-	-	3	3	2
CO3	2	3	3	2	3	-	-	-	-	-	-	3	3	2
CO4	2	3	3	2	3	-	-	-	-	-	-	3	3	2
CO5	2	3	3	2	3	-	-	-	-	-	-	3	3	2
Average	2.2	3	2.8	2	2.8	-	-	-	-	-	-	3	3	2

Course Name: C302 POWER SYSTEMS-II (EE502PE)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	3	3	-	-	-	-	-	-	-	-	3	-	-
CO2	3	3	3	2	-	-	-	-	-	-	-	3	3	2
CO3	2	3	-	-	-	-	-	-	-	-	-	3	3	2
CO4	-	3	3	2	-	-	-	-	-	-	-	3	3	2
CO5	2	3	3	2	-	-	-	-	-	-	-	3	3	2
Average	2.33	3	3	2	-	-	-	-	-	-	-	3	3	2

Course Name: C303 MEASUREMENTS & INSTRUMENTATION (EE50PE)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	3	3	-	-	-	-	-	-	-	-	3	-	2
CO2	-	3	-	2	-	-	-	-	-	-	-	2	-	-
CO3	-	2	2	-	-	-	-	-	-	-	-	-	2	-
CO4	-	-	3	2	-	-	-	-	-	-	-	-	3	-
CO5	-	-	2	3	-	-	-	-	-	-	-	2	-	2
Average	-	2.66	2.5	2.33	-	-	-	-	-	-	-	2.33	2.5	2

Course Name: C304 HIGH VOLTAGE ENGINEERING (EE512PE)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	3	2	-	-	-	-	-	-	-	-	-	3	-	2
CO2	-	3	2	-	2	-	-	-	-	-	-	-	-	-
CO3	-	3	2	-	2	-	-	-	-	-	-	-	2	-
CO4	2	3	3	3	-	-	-	-	-	-	-	3	3	-
CO5	-	3	3	3	3	-	-	-	-	-	-	-	-	2
Average	2.5	2.8	2.5	3	2.33	-	-	-	-	-	-	3	2.5	2

Course Name: C305 BUSINESS ECONOMICS & FINANCIAL ANALYSIS (SM504MS)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	-	2	1	-	-	-	-	-	-	2	1	-	-
CO2	-	-	2	2	-	1	1	-	-	-	-	-	-	-
CO3	-	-	2	2	-	-	-	-	-	-	-	-	-	-
CO4	-	-	-	-	-	-	-	-	-	-	1	-	-	-
CO5	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Average	-	-	2	1.66	-	1	1	-	-	-	1.33	1	-	-

Course Name: C306 POWER SYSTEMS SIMULATION LAB (EE505PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	2	3	2	2	-	-	-	2	-	-	2	2	2
CO2	-	-	2	-	-	-	-	-	-	-	-	3	2	1
CO3	2	-	-	-	-	2	-	-	2	-	-	-	-	-
CO4	2	2	2.5	2	2	2	-	-	2	-	-	2.5	2	1.5
Average	-	2	3	2	2	-	-	-	2	-	-	2	2	2

Course Name: C307 POWER ELECTRONICS LAB (EE506PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	-	3	-	2	-	-	-	2	-	-	-	2	-
CO2	-	2	-	-	2	-	-	-	-	3	-	3	-	-
CO3	-	3	2	-	1	-	-	-	2	-	-	-	3	-
CO4	-	-	2	-	3	-	-	-	-	2	-	2	-	-
Average	-	2.5	2.33	-	2	-	-	-	2	2.5	-	2.5	2.5	-

Course Name: C308 MEASUREMENTS AND INSTRUMENTATION LAB (EE507PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	-	3	-	2	-	-	-	2	-	-	-	2	-
CO2	-	2	-	-	2	-	-	-	-	3	-	3	-	-
CO3	-	3	2	-	1	-	-	-	2	-	-	-	3	-
CO4	-	-	2	-	3	-	-	-	-	2	-	2	-	-
CO5	-	3	-	-	1	-	-	-	-	2	-	2	-	-
Average	-	2.66	2.33	-	1.8	-	-	-	2	2.33	-	2.33	2.5	-

Course Name: C309 ADVANCE COMMUNICATION SKILLS LAB (EN508HS)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	3	-	-	2	-	-	-	-	3	-	-	-	-
CO2	-	-	-	-	3	-	-	-	3	2	-	-	-	-
CO3	-	2	-	-	2	-	-	-	2	2	-	-	-	-
CO4	-	-	-	-	3	-	-	-	-	3	-	-	-	-
CO5	-	2	-	-	2	-	-	-	2	2	-	-	-	-
Average	-	2.3 3	-	-	2.4	-	-	-	2.3 3	2.4	-	-	-	-

Course Name: C310 INTELLECTUAL PROPERTY RIGHTS (MC510)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	-	-	-	-	2	2	2	2	-	-	3	-	-
CO2	-	-	-	-	-	2	-	3	1	-	-	3	-	-
CO3	-	-	-	-	-	2	2	2	-	-	-	3	-	-
CO4	-	-	-	-	-	2	-	3	2	2	-	3	-	-
CO5	-	-	-	-	-	3	3	2	3	-	-	3	-	-
Average	-	-	-	-	-	2.2	2.3 3	2.4	2	2	-	3	-	-

III Year/II Sem (R18)

Course Name: C311 ENTREPRENEURSHIP (Open Elective-1)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	1	1	1	1	-	1	1	-	1	1	2	-	-	-
CO2	-	2	1	1	-	2	1	-	2	2	3	-	-	-
CO3	1	-	2	1	-	1	3	-	1	3	2	-	-	-
CO4	1	2	1	2	-	3	1	-	3	3	2	-	-	-
CO5	1	1	2	1	-	1	1	-	1	1	1	-	-	-
Average	1	1.5	1.4	1.2	-	1.6	1.4	-	1.6	2	2	-	-	-

Course Name: C312 POWER SEMICONDUCTOR DRIVES (EE612PE)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	3	-	-	2	-	-	-	-	3	-	-	-	-
CO2	-	-	-	-	3	-	-	-	3	2	-	-	-	-
CO3	-	2	-	-	2	-	-	-	2	2	-	-	-	-
CO4	-	-	-	-	3	-	-	-	-	3	-	-	-	-
CO5	-	2	-	-	2	-	-	-	2	2	-	-	-	-
Average	-	2.3 3	-	-	2.4	-	-	-	2.3 3	2.4	-	-	-	-

Course Name: C313 SIGNALS & SYSTEMS (EE601PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	3	-	-	2	--	-	-	-	3	-	-	-	-
CO2	-	-	-	-	3	-	-	-	3	2	-	-	-	-
CO3	-	2	-	-	2	-	-	-	2	2	-	-	-	-
CO4	-	-	-	-	3	-	-	-	-	3	-	-	-	-
CO5	-	2	-	-	2	-	-	-	2	2	-	-	-	-
Average	-	2.3 3	-	-	2.4	-	-	-	2.3 3	2.4	-	-	-	-

Course Name: C314 MICROPROCESSORS & MICROCONTROLLERS (EE602PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	3	-	-	2	-	-	-	-	3	-	-	-	-
CO2	-	-	-	-	3	-	-	-	3	2	-	-	-	-
CO3	-	2	-	-	2	-	-	-	2	2	-	-	-	-
CO4	-	-	-	-	3	-	-	-	-	3	-	-	-	-
CO5	-	2	-	-	2	-	-	-	2	2	-	-	-	-
Average	-	2.3 3	-	-	2.4	-	-	-	2.3 3	2.4	-	-	-	-

Course Name: C315 POWER SYSTEM PROTECTION (EE603PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	1	-	-	2	-	-	-	-	-	2	-	-	3
CO2	2	-	-	2	-	-	-	-	-	-	-	-	2	-
CO3	-	-	2	2	-	-	2	-	-	-	-	-	1	2
CO4	-	-	-	-	-	-	-	-	-	3	2	-	3	-
CO5	-	2	3	-	-	-	-	-	-	-	-	-	2	-
Average	2	1.5	2.5	2	2	-	2	-	-	3	2	-	2	2.5

Course Name: C316 POWER SYSTEM OPERATION & CONTROL (EE604PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	3	-	-	2	-	-	-	-	3	-	-	-	-
CO2	-	-	-	-	3	-	-	-	3	2	-	-	-	-
CO3	-	2	-	-	2	-	-	-	2	2	-	-	-	-
CO4	-	-	-	-	3	-	-	-	-	3	-	-	-	-
CO5	-	2	-	-	2	-	-	-	2	2	-	-	-	-
Average	-	2.3 3	-	-	2.4	-	-	-	2.3 3	2.4	-	-	-	-

Course Name: C2317 POWER SYSTEMS LAB (EE605PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	2	3	2	2	-	-	-	2	-	-	2	2	2
CO2	-	-	2	-	-	-	-	-	-	-	-	3	2	1
CO3	2	-	-	-	-	2	-	-	2	-	-	-	-	-
Average	2	2	2.5	2	2	2	-	-	2	-	-	2.5	2	1.5

Course Name: C318 MICROPROCESSORS AND MICROCONTROLLERS LAB (EE606PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	3	2	2	-	2	-	-	-	-	-	-	-	-	-
CO2	-	2	2	-	3	-	-	-	-	-	-	-	-	-
CO3	2	2	3	-	2	-	-	-	-	-	-	-	-	-
Average	2.5	2	2.33	-	2.33	-	-	-	-	-	-	-	-	-

Course Name: C319 SIGNALS AND SYSTEMS LAB (EE607PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2
CO1	3	-	2	-	2	-	-	-	-	1	-	-	-	-
CO2	3	2	3	-	3	-	-	-	-	1	-	-	-	-
CO3	2	2	-	2	2	-	-	-	-	-	-	2	-	-
Average	2.6	2	2.5	2	2.33	-	-	-	--	1	-	2	-	-

Course Name: C320 ENVIRONMENTAL SCIENCE (MC609)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	2	-	-	-	-	-	2	-	-	-	-	3	-	-
CO2	-	-	-	-	-	-	-	-	1	-	-	1	-	-
CO3	-	-	-	-	-	-	2	2	-	-	-	1	-	-
CO4	2	-	-	-	-	1	-	-	2	2	2	2	-	-
CO5	-	-	-	-	-	3	3	2	3	-	--	3	-	-
Average	2	-	-	-	-	2	2.33	2	1	2	2	2	-	-

IV Year/I Sem (R18)

Course Name: C401 PYTHON PROGRAMMING														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	3	2	2	3	2	2	-	-	-	-	-	2	2	2
CO2	3	2	2	2	2	2	-	-	-	-	-	1	1	-
CO3	3	3	3	3	2	2	-	-	-	-	-	1	-	3
CO4	2	2	3	2	3	3	-	-	-	-	-	2	2	-
CO5	1	2	2	3	2	2	-	-	-	-	-	1	-	3
Average	2.4	2.2	2.4	2.4	2.2	2.2	-	-	-	-	-	1.4	1.6	2.6

Course Name: C402 ELECTRICAL AND HYBRID VEHICLES (EE713PE)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	3	2	2	-	3	2	3	1	-	2	2	2	1	2
CO2	1	2	2	2	3	2	-	-	2	1	2	2	1	1
CO3	2	2	3	3	3	2	1	2	1	1	2	1	1	3
CO4	2	2	3	-	3	2	1	2	1	2	1	2	2	3
CO5	1	2	2	2	2	1	1	-	1	2	1	1	2	2
Average	1.6	2	2.4	2.33	2.8	1.8	1.25	1.67	1.25	1.6	1.6	1.6	1.4	2.2

Course Name: C403 HVDC TRANSMISSION(EE721PE)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	3	-	3	-	3	-	-	-	-	-	-	3	3	1
CO2	3	3	2	-	-	-	-	-	-	-	-	3	3	1
CO3	-	2	3	2	-	-	-	-	-	-	-	2	2	2
CO4	-	3	3	-	-	-	-	-	-	-	-	3	2	2
CO5	-	3	3	-	-	-	-	-	-	-	-	2	3	2
Average	3	2.75	2.8	2	3	-	-	-	-	-	-	2.6	2.6	1.6

Course Name: C404 FUNDAMENTALS OF MANAGEMENT FOR ENGINEERS (SM701MS)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	-	-	-	-	-	-	-	-	1	2	-	-	-
CO2	-	2	-	2	-	-	-	-	-	-	-	-	-	-
CO3	-	-	-	-	-	-	-	1	-	-	-	-	-	-
CO4	-	-	-	-	-	-	-	-	-	2	-	-	-	-
CO5	-	-	-	-	-	-	-	-	-	-	1	1	-	-
Average	-	2		2	-	-	-	1	1	1.5	1.5	1	-	-

Course Name: C405 ELECTRICAL AND ELECTRONICS DESIGN LAB (EE701PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	-	3	-	2	-	-	-	3	-	-	3	2	-
CO2	-	2		-	2	-	-	-	3	3	-	3		-
CO3	-	3	2	-	1	-	-	-	3			-	3	-
CO4	-	-	2	-	3	-	-	-	3	2	-	2	-	-
CO5	2	-	-	-	-	2	-	-	3	-	-	2	-	-
Average	2	2.5	2.33	-	2	2	-	-	3	2.5	-	2.5	2.5	-

Course Name: C406 INDUSTRIAL ORIENTED MINI PROJECT (EE702PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	2	2	-	-	-	-	-	-	-	-		-	-
CO2	2	-		3	-	-	-	-	-	-	-	2	-	3
CO3	-	-	2	3		-	-	-	-	-	-	-	2	-
CO4	-	2	-	-	2	-	-	-	-	-	2	2	-	-
CO5	-	2	-	2		-	-	-	3	2		2	-	3
Average	2	2	2	2.66	2	-	-	-	3	2	2	2	2	3

Course Name: C407 SEMINAR (EE703PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	-	2	-	-	-	-	-	-	3	-	-	2	3
CO2	-	-	-	-	-	-	-	-	2	-	-	2	3	-
CO3	-	-	-	-	-	-	-	-	-	2	-	-	2	2
Average	-	-	2	-	-	-	-	-	2	2.5	-	2	2.33	2.5

Course Name: C408 PROJECT STAGE-1 (EE704PC)														
Course Outcome	Program Outcome												Program Specific Outcome	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
CO1	-	2	2	-	-	-	-	-	-	-	-	-	-	-
CO2	-	-	-	3	-	-	2	-	-	-	-	2	2	-
CO3	-	-	2	3	-	-	-	-	-	-	-	-	-	3
CO4	-	2	-	-	2	-	-	3	-	-	2	2	-	3
CO5	-	2	-	2	-	2	-	-	3	2	-	2	3	-
Average	-	2	2	2.66	2	2	2	3	3	2	2	2	2.5	3