



Course Outcomes (Year 2017-18)

SEM: III

SUB: Engineering Mathematics-III

SUB CODE: 15MAT31

CO	After studying this course, students will be able to:
C201.1	Know the use of periodic signals and Fourier series to analyze circuits and system communications
C201.2	Explain the general linear system theory for continuous-time signals and digital signal processing using the Fourier Transform and z-transform.
C201.3	Employ appropriate numerical methods to solve algebraic and transcendental equations
C201.4	Apply Green's Theorem, Divergence Theorem and Stokes' theorem in various applications in the field of electro-magnetic and gravitational fields and fluid flow problems.
C201.5	Determine the external of functional and solve the simple problems of the calculus of variations.

SEM: III

SUB: Electric Circuit Analysis

SUB CODE: 15EE32

CO	After studying this course, students will be able to:
C202.1	Apply knowledge of mathematics, science, and engineering to the analysis and design of electrical circuits.
C202.2	Identify, formulate, and solve engineering problems in the area circuits and systems.
C202.3	Analyze the solution and infer the authenticity of it.

SEM: III

SUB: Transformer And Generator

SUB CODE: 15EE33

CO	After studying this course, students will be able to:
C203.1	Explain the construction and operation and performance of transformers
C203.2	Explain different connections for the three phase operations, their advantages and applications.
C203.3	Explain the construction and operation of Synchronous machines and evaluate the regulation of synchronous machines by different methods.
C203.4	Analyze the operation of the synchronous machine connected to infinite machine.

SEM: III

SUB: Analog Electronic Circuits

SUB CODE: 15EE34

CO	After studying this course, students will be able to:
C204.1	Explains the diode applications and different transistor biasing circuits.
C204.2	Describes the behavior of transistor at low frequencies with the help of h- parameters.
C204.3	Briefs Darlington circuits and feedback amplifier connections.
C204.4	Explains different power amplifiers and oscillator circuits.
C204.5	Explains FET, MOSFET bias and as an amplifier.



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SEM: III SUB: Digital System Design SUB CODE: 15EE35

CO	After studying this course, students will be able to:
C205.1	Design and analyze combinational & sequential circuits
C205.2	Design circuits like adder, sub tractor, code converter etc.
C205.3	Understand counters and sequence generators.

SEM: III SUB: Electrical & Electronics Measurements SUB CODE: 15EE36

CO	After studying this course, students will be able to:
C206.1	Explain the importance of units and dimensions.
C206.2	Measure resistance, inductance and capacitance by different methods.
C206.3	Explain the working of various meters used for measurement of power and energy.
C206.4	Explain the working of different electronic instruments and display devices

SEM: III SUB: Electrical Machines Laboratory-1 SUB CODE: 15EEL37

CO	After studying this course, students will be able to:
C207.1	Conduct different tests on transformers and synchronous generators and evaluate their performance.
C207.2	Connect and operate two single phase transformers of different KVA rating in parallel.
C207.3	Connect single phase transformers for three phase operation and phase conversion.
C207.4	Assess the performance of synchronous generator connected to infinite bus.

SEM: III SUB: Electronics Laboratory SUB CODE: 15EEL38

CO	After studying this course, students will be able to:
C208.1	Design and test different diode circuits.
C208.3	Design and test amplifier and oscillator circuits and analyze their performance.
C208.4	Use universal gates and ICs for code conversion and arithmetic operations.
C208.5	Design and verify on of different counters



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SEM: IV SUB: Engineering Mathematics – IV SUB CODE: 15MAT41

CO	After studying this course, students will be able to:
C209.1	Solve first and second order ordinary differential equations by using appropriate numerical methods.
C209.2	Explain the idea of analyticity, potential field's residues and poles of complex potentials in field theory and electromagnetic theory.
C209.3	Solve Engineering problems using complex variable techniques
C209.4	Explain the basic concepts of probability, random variables, probability distribution and joint probability distribution.
C209.5	Analyze and Evaluate scientific hypotheses using rigorous statistical methods.

SEM: IV SUB: Power Generation And Economics SUB CODE:15EE42

CO	At the end of the course students will be able to:
C210.1	Describe the working of hydroelectric, power plant and state functions of major equipment of the power plant.
C210.2	Describe the working of steam power plant and state functions of major equipment of power plant.
C210.3	Describe the working of Nuclear power plant and explain classification of Nuclear reactors.
C210.4	Classify various substations and explain the importance of grounding
C210.5	Understand the economic aspects of power system operation, its effects and importance of power factor improvement.

SEM: IV SUB: Transmission And Distribution SUB CODE: 15EE43

CO	At the end of the course, the students will be able to
C211.1	Explain the various methods of generation of power, identify the importance of different transmission systems and types of insulators.
C211.2	Analyze and compute the parameters of the transmission line for different configurations and assess the performance of overhead lines.
C211.3	Interpret corona, explain the use of underground cables.
C211.4	Classify different types of distribution system, examine its quality & reliability.

SEM: IV SUB: Electric Motors SUB CODE: 15EE44

CO	At the end of the course, students will be able to:
C212.1	Explain the constructional features, characteristics and speed control of DC Motors and selection of a suitable drive for specific application.
C212.2	Determine the performance of DC machines from the pre-determined and determined test data
C212.3	Explain the performance of Three Phase induction motor.
C212.4	Explain starting methods and speed control of induction motor by a suitable method & Explain the construction and operation of single phase induction & Motors.
C212.5	Explain the construction, operation and performance of synchronous motor. Discuss construction and operation of special motors; Universal motor, AC servomotor, Linear induction motor and stepper motor.

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ASSESSMENT REPORT OF ELECTRONICS & COMMUNICATION ENGG. DEPARTMENT



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SEM: IV**SUB: Electromagnetic Field Theory****SUB CODE: 15EE45**

CO	At the end of the course, students will be able to:
C213.1	Use the concept of vectors & different coordinate systems to calculate electric force & electric fields produced by different charge configurations.
C213.2	Calculate the energy and potential due to a system of charges & explain the behavior of conductors & dielectrics.
C213.3	Calculate the behavior of electric field distribution using Poisson's & Laplace equations & distribution of steady magnetic field using Biot-Savart's law, Ampere's circuital law
C213.4	Explain the behavior of force, magnetic materials & magnetic circuit.
C213.5	Assess time varying fields and propagation of waves in different media.

SEM: IV SUB: Operational Amplifiers And Linear ICs SUB CODE: 15EE46

CO	After studying this course, students will be able to:
C214.1	Discuss characteristics of Op-amp and Design linear Op-amp applications.
C214.2	Design active filters and voltage regulators using Op-amp.
C214.3	Explain wave shape generator, comparator and converter circuits.
C214.4	Design signal processing circuits, ADC and DAC's using Op-amp.
C214.5	Discuss PLL and 555 timers.

SEM: IV**SUB: Electrical Machine Lab 2****SUB CODE: 15EEL47**

CO	After studying this course, students will be able to:
C215.1	Test dc machines to determine their characteristics.
C215.2	Control the speed of dc motor.
C215.3	Pre-determine the performance characteristics of dc machines by conducting suitable tests.
C215.4	Perform load test on single phase and three phase induction motor to assess its performance.
C215.5	Conduct test on induction motor to pre-determine the performance characteristics
C215.6	Conduct test on synchronous motor to draw the performance curves.

SEM: IV SUB: OP- AMP And Linear ICS Laboratory SUB CODE: 15EEL48

CO	After studying this course, students will be able to:
C216.1	Design and Test Op-amp Full wave precision rectifier.
C216.2	Design and test Op-Amp as Inverting, Non-inverting amplifier, RC phase shift oscillator and Schmitt trigger circuit.
C216.3	Design and test Op-amp as adder, subtractor, differentiator & integrator circuits.
C216.4	Design Op-amp based Butterworth filter circuits.
C216.5	Design and Test Op-amp based function generator, D/A converters and Timer based pulse generators.
C216.6	Design IC based fixed voltage power supplies.



SEM: V SUB: Management And Entrepreneurship SUB CODE: 15EE51

CO	After studying this course, students will be able to:
C301.1	Explain the field of management, task of the manager, planning and the need of proper staff, recruitment and selection process.
C301.2	Discuss work allocation, the structure of organization, the modes of communication and importance of managerial control in business.
C301.3	Explain need of coordination between the manager and staff in exercising the authority and delegating duties.
C301.4	Explain the social responsibility of business and leadership
C301.5	Explain the concepts of entrepreneurship and the role and importance of the entrepreneur in economic development.
C301.6	Show an understanding of the role and importance of Small Scale Industries, business plan and its presentation.
C301.7	Discuss the concepts of project management, capitol building process, project feasibility study, project appraisal and project financing.
C301.8	Discuss the state /central level institutions / agencies supporting business enterprises.

SEM: V SUB: Microcontroller SUB CODE: 15EE52

CO	After studying this course, students will be able to:
C302.1	Discuss the history of the 8051 and features of other 8051 family members and the internal architecture of the 8051.
C302.2	Explains the use of an 8051 assembler, the stack and the flag register, loop, jump, and call instructions.
C302.3	Discuss 8051 addressing modes, accessing data and I/O port programming, arithmetic, logic instructions, and programs.
C302.4	Develop 8051C programs for time delay, I/O operations, I/O bit manipulation, logic and arithmetic operations, data conversion and data serialization
C302.5	Discuss the hardware connection of the 8051 chip, its timers, serial data communication and its interfacing of 8051 to the RS232.
C302.6	Interface 8051 with real-world devices such as LCDs and keyboards, ADC, DAC chips and sensors.
C302.7	Discuss in detail 8051 interrupts and writing interrupt handler programs.
C302.8	Interface 8031/51 with external memories, 8255 chip to add ports and relays, opt isolators and motors.



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SEM: V SUB: Power Electronics SUB CODE: 15EE53

CO	After studying this course, students will be able to:
C303.1	Explain application areas of power electronics, types of power electronic circuits and switches, their characteristics and specifications.
C303.2	Explain different types of power diodes, its effects on RL circuits and operation and analysis of single phase diode rectifier circuits.
C303.3	Explain steady state, switching characteristics and gate /base drive requirements of different power transistors and their comparison.
C303.4	Discuss different types of thyristors, their operation, characteristics and firing circuits.
C303.5	Discuss the principle of operation and analysis of controlled rectifiers, AC voltage controllers, DC – DC and DC –AC converters.

SEM: V SUB: Signals And Systems SUB CODE: 15EE54

CO	After studying this course, students will be able to:
C304.1	Explain the classifications, basic operations of signals and properties of systems.
C304.2	Evaluate response of a given linear time invariant system using convolution, differential/difference equations and block diagram representation..
C304.3	Apply continuous time and discrete time Fourier series to analyze LTI systems.
C304.4	Apply continuous time and discrete time Fourier transform to analyze LTI systems.
C304.5	Use Z-transform and properties of Z transform for the analysis of discrete time systems

SEM: V SUB: Electrical Estimation And Costing SUB CODE: 15EE553

CO	After studying this course, students will be able to:
C305.1	Explain the purpose of estimation and costing.
C305.2	Discuss market survey, estimates; purchase enquiries, preparation of tenders, comparative statements. and payment of bills.
C305.3	Discuss Indian Electricity act and Indian Electricity rules.
C305.4	Discuss distribution of energy in a building, wiring and methods of wiring, cables used in internal wiring, wiring accessories and fittings, fuses and types of fuses.
C305.5	Discuss design of lighting points and its number, total load, sub-circuits, size of conductor.
C305.6	Discuss types of service mains and estimation of service mains and power circuits.
C305.7	Discuss estimation of overhead transmission and distribution system and its components.
C305.8	Discuss main components of a substation, preparation of single line diagram of a substation and earthing of a substation.



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SEM: V SUB: Programmable Logic Controllers SUB CODE: 15EE562

CO	After studying this course, students will be able to:
C306.1	Discuss history of PLC, its sequence of operation, advantages and disadvantages, main parts and their functions.
C306.2	Describe the hardware components of PLC: I/O modules, CPU, memory devices, other support devices, operating modes and PLC programming.
C306.3	Describe field devices Relays, Contactors, Motor Starters, Switches, Sensors, Output Control Devices, Seal-In Circuits, and Latching Relays commonly used with I/O module.
C306.4	Convert relay schematics and narrative descriptions into PLC ladder logic programs.
C306.5	Analyze PLC timer and counter ladder logic programs
C306.6	Describe the operation of different program control instructions
C306.7	Discuss the execution of data transfer instructions, data compare instructions and the basic operation of PLC closed-loop control system.
C306.8	Describe the operation of mechanical sequencers, bit and word shift registers, processes and structure of control systems and communication between the processes.

SEM: V SUB: Renewable Energy Sources SUB CODE: 15EE563

CO	After studying this course, students will be able to:
C306.1	Discuss causes of energy scarcity and its solution, energy resources and availability of renewable energy.
C306.2	Discuss energy from sun, energy reaching the Earth's surface and solar thermal energy applications.
C306.3	Discuss types of solar collectors, their configurations, solar cell system, its characteristics and their applications.
C306.4	Discuss generation of energy from hydrogen, wind, geothermal system, solid waste and agriculture refuse.
C306.5	Discuss production of energy from biomass, biogas.
C306.6	Discuss tidal energy resources, energy availability and power generation.
C306.7	Discuss power generation sea wave energy and ocean thermal energy

SEM: V SUB: Microcontroller Lab SUB CODE: 15EEL57

CO	After studying this course, students will be able to:
C307.1	Write an assembly language programs for data transfer, arithmetic, Boolean and logical instructions.
C307.2	Write ALP for code conversions.
C307.3	Write ALP using subroutines for generation of delays, counters, configuration of SFRs for serial communication and timers.
C307.4	Perform interfacing of stepper motor and dc motor for controlling the speed.
C307.5	Generate different waveforms using DAC interface.
C307.6	Perform interfacing of LCD, Elevator, ADC and temperature controller to 8051



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SEM: V

SUB: Power Electronics Lab

SUB CODE: 15EEL58

CO	After studying this course, students will be able to:
C308.1	Use software package or discrete components in assessing the time and frequency domain responses of a given second order system.
C308.2	Design and analyze Lead, Lag and Lag – Lead compensators for given specifications.
C308.3	Determine the performance characteristics of ac and dc servomotors and synchro-transmitter receiver pair used in control systems.
C308.4	Simulate the DC position and feedback control system to study the effect of P, PI, PD and PID controller and Lead compensator on the step response of the system.
C308.5	Write a script files to plot root locus, bode plot, Nyquist plots to study the stability of the system using a software package.
C308.6	Work with a small team to carryout experiments and prepare reports that present lab work.



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SEM: VI**SUB: Control System****SUB CODE: 15EE61**

CO	After studying this course, students will be able to:
C309.1	Discuss the effects of feedback control systems & Evaluate the transfer function of a linear time invariant system
C309.2	Apply block diagram manipulation and signal flow graph methods to obtain transfer function of systems.
C309.3	Determine transient and steady state time response of a simple control system.
C309.4	Investigate the performance of a given system in time and frequency domains.
C309.5	Determine the controller or compensator configuration and parameter values relative to how it is connected to the controlled process given the design specifications.

SEM: VI**SUB: Power System Analysis****SUB CODE: 15EE62**

CO	After studying this course, students will be able to:
C310.1	Model the power system components & construct per unit impedance diagram of power system.
C310.2	Analyze three phase symmetrical faults on power system.
C310.3	Analyze various unsymmetrical faults on power system using symmetrical components & sequence networks.
C310.4	Determine power system stability.

SEM: VI**SUB: Digital Signal Processing****SUB CODE: 15EE63**

CO	After studying this course, students will be able to:
C311.1	Evaluate the DFT of various signals using its properties and linear filtering of two sequences.
C311.2	Apply fast and efficient algorithms for computing DFT and inverse DFT of a given sequence.
C311.3	Design digital IIR filters by using different transformation techniques.
C311.4	Design digital FIR filters using different sampling techniques.
C311.5	Model digital filters using different realization methods.

SEM: VI**SUB: Electrical Machine Design****SUB CODE: 15EE64**

CO	After studying this course, students will be able to:
C312.1	Explain principles and limitations of Electrical Machine design.
C312.2	Design different parts of DC machines.
C312.3	Design single phase and three phase transformers
C312.4	Design three phase Induction motors
C312.5	Design three phase Synchronous generators



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SEM: VI SUB: Computer Aided Electrical Drawing SUB CODE: 15EE651

CO	After studying this course, students will be able to:
C313.1	Discuss the terminology and types of DC and AC armature windings.
C313.2	Develop armature winding diagram for DC and AC machines
C313.3	Develop a layout for substation using the standard symbols for substation equipment.
C313.4	Draw sectional views of core and shell types transformers using the design data
C313.5	Draw sectional views of assembled DC machine or its parts using the design data or the sketches.
C313.6	Draw sectional views of assembled alternator or its parts using the design data or the sketches.

SEM: VI SUB: Sensors And Transducers SUB CODE: 15EE662

CO	After studying this course, students will be able to:
C314.1	Discuss the working of various transducers and sensors.
C314.2	Discuss basics of signal conditioning and signal conditioning equipment.
C314.3	Discuss configuration of Data Acquisition System and data conversion.
C314.4	Explain data transmission and telemetry.
C314.5	Explain measurement of non electrical quantities -temperature, flow, speed, force, torque, power and viscosity.

SEM: VI SUB: Control System Laboratory SUB CODE: 15EEL67

CO	After studying this course, students will be able to:
C315.1	Use software package or discrete components in assessing the time and frequency domain responses of a given second order system.
C315.2	Design and analyze Lead, Lag and Lead – Lag compensators for given specifications.
C315.3	Determine the performance characteristics of ac and dc servomotors and synchro-transmitter receiver pair used in control systems .
C315.4	Simulate the DC position and feedback control system to study the effect of P, PI, PD and PID controller and Lead compensator on the step response of the system.
C315.5	Write a script files to plot root locus, Bode plot, Nyquist plots to study the stability of the system using a software package.
C315.6	Work with a small team to carryout experiments and prepare reports that present lab work.

SEM: VI SUB: Digital Signal Processing Laboratory SUB CODE:15EEL68

CO	After studying this course, students will be able to:
C316.1	Show the physical interpretation of sampling theorem in time and frequency domains.
C316.2	Evaluate the impulse response of a system.
C316.3	Perform convolution of given sequences to evaluate the response of a system
C316.4	Compute DFT and IDFT of a given sequence using the basic definition and/or fast methods.
C316.5	Provide a solution for a given difference equation.
C316.6	Design and implement IIR and FIR filters

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SEM: VII SUB: Computer Techniques In Power Systems SUB CODE:10EE71

CO	After studying this course, students will be able to:
C401.1	Describe the geometrical structure of a network & outline the transformations required to derive network matrices, suitable for computer simulations.
C401.2	Form and solve load flow problems by different methods.
C401.3	Form and solve problems of economic operation of power system by different techniques.
C401.4	Analyze the stability of given power system using different techniques.

SEM: VII SUB: Electric Power Utilization SUB CODE: 10EE72

CO	After studying this course, students will be able to:
C402.1	Discuss different methods of electric heating and welding.
C402.2	Explain laws of electrolysis, extraction, refining of metals and electro deposition process.
C402.3	Discuss the laws of illumination, different types of lamps, lighting schemes and design of interior lighting systems.
C402.4	Analyze systems of electric traction, speed time curves, mechanics of train movement, braking and control of traction motors.
C402.5	Explain the working of electric and hybrid electric vehicles.

SEM: VII SUB: High Voltage Engineering SUB CODE:10EE73

CO	After studying this course, students will be able to:
C403.1	Describe need for generating high voltages in laboratory and industrial applications of high voltage engineering
C403.2	Describe the fundamental concepts of electric breakdown in gases, liquid and solid dielectrics.
C403.3	Understand fundamental concepts of high voltage AC, DC and impulse generation.
C403.4	Explain the techniques employed in high voltage measurements.
C403.5	Describe non-destructive test techniques in high voltage engineering.
C403.6	Understand fundamental concepts of High voltage tests on power system apparatus and switchgear such as circuit breakers, insulators, transformers and cables.



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SEM: VII SUB: Industrial Drives And Applications SUB CODE: 10EE74

CO	After studying this course, students will be able to:
C404.1	Explain the advantages and choice of electric drive.
C404.2	Analyze starting, braking and transient analysis of dc motor.
C404.3	Explain dynamics and different modes of operation of electric drives.
C404.4	Suggest a motor for a drive and control of dc motor using controlled rectifiers.
C404.5	Analyze the performance of induction motor drives under different conditions.
C404.6	Control induction motor, synchronous motor and stepper motor drives and Suggest a suitable electrical drive for specific application in the industry.

SEM: VII SUB: Programmable Logic Controller SUB CODE: 10EE752

CO	After studying this course, students will be able to:
C406.1	Summarize the features, hardware, input/output devices and remote connection with respect to the PLC.
C406.2	Describe ladder diagrams for logic functions and Latch.
C406.3	Discuss various programming languages and subroutine functions.
C406.4	Explain the ladder diagrams for internal relays.
C406.5	Discuss Timer and Counter instructions.
C406.6	Describe shift registers and data handling instructions.

SEM: VII SUB: VLSI Circuits And Design SUB CODE: 10EE764

CO	After studying this course, students will be able to:
C414.1	Explain the IC technology, its evolution and fabrication process.
C414.2	Describe Electrical properties of MOS and BICMOS circuits.
C414.3	Design MOS and BICMOS circuits and discuss basic VLSI circuit concepts
C414.4	Discuss the limitations of scaling MOS Circuits.
C414.5	Discuss structured design and clock sequential circuits of a subsystem.
C414.6	Explain general considerations of subsystem design and its implementation.



SEM: VII SUB: Relay And High Voltage Lab SUB CODE: 10EEL77

CO	After studying this course, students will be able to:
CO417.1	Experimentally verify electromechanical type over current, over voltage, Differential and microprocessor based relay.
CO417.2	Demonstrate Current-time characteristics of a given fuse element.
CO417.3	Demonstrate fault analysis on Induction motor using motor protection simulation study unit.
CO417.4	Analyze Spark over characteristics of air insulation subjected to HVAC and HVDC with different electrode configuration.
CO417.5	Measure breakdown voltage of air insulation subjected to high voltage AC and DC using standard spheres.
CO417.6	Determine breakdown strength of transformer oil.
CO417.7	Show equipotential lines of different electrode models using electrolytic tank.

SEM: VII SUB: Power System Simulation Lab SUB CODE: 10EEL78

CO	After studying this course, students will be able to:
C418.1	Develop a program in MATLAB to assess the performance of short medium and long transmission lines.
C418.2	Develop programs in MATLAB to formulate bus admittance and bus impedance matrices of interconnected power systems.
C418.3	Develop a program in MATLAB to obtain the power angle characteristics of salient and non-salient pole alternator and determine stability of synchronous machine using swing equation.
C418.4	Use Mi-Power package to solve power flow problem for simple power systems using LFA.
C418.5	Use Mi-Power package to study unsymmetrical faults at different locations in radial power systems.
C418.6	Use of Mi-Power package to study optimal generation scheduling problems for thermal power plants.



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SEM: VIII SUB:Electrical Design Estimation & Costing SUB CODE:10EE81

CO	After studying this course, students will be able to:
C419.1	Explain general principles of estimation and major applicable I.E. rules.
C419.2	Design and Estimate electrification of residential buildings and commercial installations.
C419.3	Design and Estimate service connection of various electrical installations.
C419.4	Take part in inspection & testing of different electrical installations.
C419.5	Design and Estimate Electrical installation for power circuits.
C419.6	Design and Estimate overhead transmission, distribution lines and substations.

SEM: VIII SUB: Power System Operation & Control SUB CODE:10EE82

CO	After studying this course, students will be able to:
C410.1	Explain the concept of power system operation and control and estimate the mathematical modeling of AVR & ALFC loops.
C410.2	Decide the suitable technique for voltage and reactive power control.
C410.3	Solve the unit commitment problems by different methods.
C410.4	Analyze power system security by different methods of contingency analysis.
C410.5	Derive power system state estimation (PSSE) and mathematical description of PSSE process, minimization technique.
C410.6	Measure power system reliability

SEM: VIII SUB: Renewable Energy Sources SUBCODE:10EE836

CO	After studying this course, students will be able to:
C426.1	Understand the Electric power status in India, and role of conventional and non conventional Energy sources in power production.
C426.2	Explain why an increased dependence on solar energy is an inevitable part of our future.
C426.3	Describe solar constant, sun earth angles, solar radiation data and different types of solar collectors.
C426.4	Model, analyze and design photovoltaic systems and Describe the methods of solar energy storage
C426.5	Model, analyze and design wind energy systems and Understand the various types of wind turbines.
C426.6	Describe biomass generation, Explain classification of biogas plants and methods for obtaining energy from biomass.
C426.7	Explain the classification of tidal power plants and methods of OTEC power generation.
C426.8	Explain small hydro resources, hydrogen energy and wave energy.

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ASSESSMENT REPORT OF ELECTRONICS & COMMUNICATION ENGG. DEPARTMENT



S J P N Trust's

Hirasugar Institute of Technology, Nidasoshi.

Inculcating Values, Promoting Prosperity

Approved by AICTE, Recognized by Govt. of Karnataka and Affiliated to VTU Belagavi.

EEE

NAAC

Course Outcomes

2017-18

SEM: VIII SUB: Energy Audit And Demand Side Management SUB CODE: 10EE842

CO	After studying this course, students will be able to:
C428.1	Discuss energy scenario in the world and India.
C428.2	Explain the need of Energy economic analysis
C428.3	Discuss energy auditing and its outcomes and methodology of detailed energy audit.
C 428.4	Explain plant energy performance and production factor
C 428.5	Discuss importance of power factor correction, energy efficient motors and electrical tariff
C 428.6	Justify the importance of energy saving practices in lighting
C 428.7	Illustrate the various steps in Demand side management planning and implementation.
C 428.8	Discuss Energy conservation opportunities in different sectors.

SEM: VIII SUB: Electrical Distribution System SUB CODE: 10EE844

CO	After studying this course, students will be able to:
C430.1	Explain the concept of distribution system planning and distribution automation.
C430.2	Explain the importance of load forecasting, load management and load growth in electrical distribution system.
C430.3	Plan cost effective electrical distribution system by considering standard programs and planning criteria.
C430.4	Discuss distribution system design, operation criteria and system losses.
C430.5	Discuss role of Distribution Automation & SCADA in overcoming existing problems of distribution system.
C430.6	Analyze costing of schemes, network cost modeling synthesis of optimum line network.