



E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)

NAGAPATTINAM – 611 002. TAMILNADU, INDIA

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai

(Accredited by NAAC with 'A' Grade and NBA)

Email: principal@egspec.org website: www.egspec.org Ph: 04365-251112

SEMESTER – I

COURSE CODE & NAME: 1901MA103 & Engineering Mathematics – I

COURSE OUTCOME:

1. Develop the evolutes and envelopes of given curves by means of radius and centre of curvature.
2. Determine the area and volume of a curve using double and triple integration
3. Calculate the inverse and rank of a square matrix and Make use of Matrix Operations to solve the systems of linear equations
4. Determine Vector spaces and subspaces using linear independence and span of a set of vectors, basis and dimension.
5. Determine the nature of the matrix using Orthogonal Transformation

COURSE CODE & NAME: C 102 - 1901PH102 & WAVE, OPTICS AND ELECTROMAGNETISM

COURSE OUTCOME

- 1 Apply the conditions for wave propagation in electrical oscillators and harmonic oscillators
- 2 Apply the concepts of wave formation in strings, its reflection and transmission at boundaries
- 3 Apply the criterion for resolution of light in diffraction gratings and interferometers
- 4 Solve equations for electrostatic potentials and electric displacement conditions in practical cases
- 5 Determine the magnetic flux due to ferromagnets and its susceptibility

COURSE CODE & NAME: C 103 - 1901GE101 & ELECTRIC CIRCUIT ANALYSIS

COURSE OUTCOME

- 1 Explain the basic laws, theorems and concepts of DC / AC (1 phase and 3 phase) circuits, Resonant and coupled circuits
- 2 Solve the problems in network topology and to identify the dual of the network.
- 3 Solve the problems in resonance circuits, coupled circuits and two port networks
- 4 Analyse the transient behaviour of first and second order circuits using Laplace transforms.
- 5 Apply Ohms law, Kirchoff 'laws, mesh & nodal methods and network theorems to solve Circuit problems.
- 6 Analyse three phase 3 wire/ 4 wire balanced/ unbalanced star/delta connected loads.

COURSE CODE & NAME: C 104 - 1901GEX02 & ENGINEERING GRAPHICS COURSE OUTCOME

- 1 Perform free hand sketching of basic geometrical constructions and multiple views of objects.
- 2 Do orthographic projection of lines and plane surfaces.



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- 3 Draw projections, solids, and development of surfaces.
- 4 Prepare isometric and perspective sections of simple solids
- 5 Demonstrate computer aided drafting.

COURSE CODE & NAME: C 105 - 1901GEX51 & CAD LABORATORY

COURSE OUTCOME

After the completion of the course, the students will able to

- 1 Study of various drafting and modelling
- 2 Illustrate the text and projection symbol with different curves.
- 3 Illustrate the top, front view of solids and objects.
- 4 Illustrate sectional views of prism, pyramid, cylinder, cone, isometric projection.
- 5 Creation of 3-D models of simple objects

COURSE CODE & NAME: C 106 - 1901GEX53 & BASIC ELECTRICAL AND ELECTRONICS

ENGINEERING LABORATORY

COURSE OUTCOME

- 1 Demonstrate the verification of laws & logic gates in electrical electronics circuits.
- 2 Make use of different electrical wiring and energy conservation in electrical network.
- 3 Demonstrate the functions of various ICs
- 4 Conduct the speed control characteristics of dc motor
- 5 Measure the earth resistance for safety precautions.

COURSE CODE & NAME: C 107 - 1901PHX51 & ENGINEERING PHYSICS LABORATORY

COURSE OUTCOME

- 1 Apply the theoretical concepts of physics in procedures and techniques in performing the experiments
- 2 Apply and demonstrate, thermal conductivity, electrical properties of metals and semiconductors, elastic properties of materials and oscillations through experiential learning
- 3 Demonstrate the use of monochromatic light, lasers in optical fibre communication and quantum mechanics towards specific engineering applications
- 4 Use different measuring devices/ meters to record the data with precision and apply the mathematical concepts/equations to obtain quantitative results
- 5 Develop basic communication skills through working in groups in performing the laboratory experiments and by interpreting the results

COURSE CODE & NAME: C 108 - 1901GE151 & ENGINEERING INTELLIGENCE I

COURSE OUTCOME

- 1 Describe the Fundamentals of Inter-personal Communication.
- 2 Develop the Activities on Reading Comprehension
- 3 Develop the Activities on Writing Skills
- 4 Develop the Activities on Presentation Skills
- 5 Develop the Activities on Soft Skills



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COURSE CODE & NAME: C 109 - 1901MA203 &ENGINEERING MATHEMATICS-II

COURSE OUTCOME

- 1 Determine the nature of the matrix using Orthogonal Transformation and Calculate the inverse and positive powers of a square matrix.
- 2 Apply Laplace Transform in solving Boundary value problems of second order ODE.
- 3 Determine the numerical solution for interpolation by Lagrange's and Newton's method and Solve the definite integral and differentiation from a set of tabulated values by Newton's, Trapezoidal and Simpson's method.
- 4 Calculate the numerical solution for first order ordinary differential equation using Euler's, Runge-Kutta and Milne's method.
- 5 Determine the numerical solution for partial differential equation using Implicit and Explicit methods

COURSE CODE & NAME: C 110 - 1901CH202 &APPLIED CHEMISTRY

COURSE OUTCOME

- 1 Describe the electrode potential value using electro chemical principles
- 2 Explain the polarigraphic principle and its application
- 3 Differentiate the various types of energy sources and devices
- 4 Classify the storage devices and its application
- 5 Describe the various types of power plants and transmission materials

COURSE CODE & NAME: C 111 - 1901GEX03 &PROGRAMMING FOR PROBLEM SOLVING

COURSE OUTCOME

- 1 Describe basic concepts of computers
- 2 Paraphrase the operations of number system
- 3 Describe about basic concepts of C-Language
- 4 Understand the code reusability with the help of user defined functions
- 5 Analyze the structure concept, union, file management and pre-processor in C language

COURSE CODE & NAME: C 112 - 1901ENX01 &ENGLISH FOR ENGINEERS

COURSE OUTCOME

- 1 Interpret grammatically correct sentences for oral as well as written. communication
- 2 Identify perfectly after paying attention to an audio on any theme.
- 3 Demonstrate formal presentations effectively
- 4 Explain the content of any written or visual material
- 5 Describe technical and non-technical documents with appropriate contents and context
- 6 Classify, analyze and adjust their own communication



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COURSE CODE & NAME: C 113 - 1901GE201 &ENGINEERING EXPLORATION

COURSE OUTCOME

- 1 Understand Engineering disciplines, Engineering advancements.
- 2 Make use of engineering thoughts into various project through brainstorming and researching
- 3 Test the final output of the engineering exploration
- 4 Understand about Civil, Mechanical Engineering field
- 5 Understand about Electrical and computer Engineering field

COURSE CODE & NAME: C 114 - 1901GE253 &BASIC WORKSHOP LABORATORY

COURSE OUTCOME

- 1 Prepare different object and shapes by using sheet metal
- 2 Apply arc and gas welding to prepare simple components
- 3 Make a simple component using carpentry power tool
- 4 Construct a household pipe line connections using pipes
- 5 Make use of rapid prototyping in engineering field

COURSE CODE & NAME: C 115 - 1901GEX52 &COMPUTER PROGRAMMING

LABORATORY

COURSE OUTCOME

- 1 Develop program to illustrate basic concept OF C Language
- 2 Implement the program using looping statements and arrays
- 3 Develop the program using strings, pointers and structures
- 4 Implement Decision Making and Branching statements in C program
- 5 Make use of program working with files in C

COURSE CODE & NAME: C 116 - 1901CHX51 &ENGINEERING CHEMISTRY LABORATORY

COURSE OUTCOME

- 1 Measure the hardness and alkalinity of given water sample
- 2 Find the amount and percentage of iron in unknown sample using EMF and photometric methods
- 3 Determine the amount of strong acid present in the given sample using PH metric and conductometric methods
- 4 Determine the amount of dissolved oxygen and heavy metal present in the given sample
- 5 Determine the molecular weight of the given polymer



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COURSE CODE & NAME: C 117 - 1901HSX51 & COMMUNICATION SKILL LABORATORY

COURSE OUTCOME

- 1 Compose grammatically correct sentences for oral as well as written communication.
- 2 Interpret perfectly after paying attention to an audio on any theme.
- 3 Organize formal presentations effectively
- 4 Explain the content of any written or visual material
- 5 Generate technical and non-technical documents with appropriate contents and context.
- 6 Monitor, analyze and adjust their own communication.

COURSE CODE & NAME: C 118 - 1901GE252 & ENGINEERING INTELLIGENCE II

- 1 Apply their knowledge and skill to engineering field
- 2 Understand the value of individual competence
- 3 Apply their skill to career planning and team work
- 4 Illustrate verbal and nonverbal skills
- 5 Use various communication skill exercise to write and interpret the contents

COURSE CODE & NAME: C 201 - 1901MA303 & ENGINEERING MATHEMATICS-III

COURSE OUTCOME

- 1 Construct an analytic functions, harmonic functions and conformal mappings
- 2 Determine the area and volume of a curve using double and triple integration
- 3 Estimate contour integrals, Cauchy integral formula, Cauchy integral formula and residues
- 4 Determine the Fourier transforms, Inverse Fourier Transforms
- 5 Determine the Z transforms Inverse Z transforms solving differential equations by using Z transforms

COURSE CODE & NAME: C202 - 1902EE301 & ANALOG ELECTRONICS

COURSE OUTCOME

- 1 Explain the structure, V-I Characteristics and applications of diodes
- 2 Describe the V-I characteristics of BJT in CB, CE & CC configurations also able to design and analyze amplifier circuits containing BJT as a device
- 3 Discuss the structure, operation and V-I characteristics of FET also able to design and analyze amplifier circuits containing FET as a device
- 4 Explain the need and operation of differential amplifiers, single tuned amplifiers and power amplifiers able to analyze differential and single tuned amplifiers.
- 5 Analyse negative feedback amplifiers to determine necessary expressions & RC, LC and Crystal Oscillators to find out frequency of oscillations

COURSE CODE & NAME: C203 - 1902EE302 & DIGITAL ELECTRONICS

COURSE OUTCOME



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- 1 Solve digital system problems using number systems, binary codes, logic gates, Boolean algebra and Karnaugh Map
- 2 Construct combinational logic circuits using logic gates and multiplexers
- 3 Build synchronous sequential logic circuits using excitation table, stable table and state diagrams
- 4 Construct asynchronous sequential logic circuits using flow table, transition table, state assignment and state reduction techniques
- 5 Implement Boolean functions and combinational logic circuits using memories, programmable logic devices and logic families

COURSE CODE & NAME: C204 - 1902EE303 & DC MACHINES AND TRANSFORMERS

COURSE OUTCOME

- 1 Understand the operation characteristics of DC machines
- 2 Understand the operation characteristics of Transformer
- 3 Analyze the performance parameters of DC machine and Transformer
- 4 Elucidate the applications of transformer
- 5 Apply the different testing methods to assess the performance of Electrical machines

COURSE CODE & NAME: C205 - 1901GE301 & BASIC CIVIL AND MECHANICAL ENGINEERING

COURSE OUTCOME

- 1 Explain the usage of construction material and proper selection of it.
- 2 Design building structure
- 3 Explain about various power plants and its operation
- 4 Describe the operation of internal combustion engine
- 5 Discuss about Refrigeration And Air Conditioning System

COURSE CODE & NAME: C206 - 1902EE351 & ANALOG ELECTRONICS LABORATORY

COURSE OUTCOME

- 1 Illustrate the turn on and turn off process of different switches
- 2 Design a circuit, which is used to convert ac signal to dc signal
- 3 Determine voltage gain from CE and CB configurations
- 4 Determine the frequency and gain value of various types of oscillators and amplifiers
- 5 Study and understand the operation of digital storage oscilloscope

COURSE CODE & NAME: C 207 -1902EE352 & DC MACHINES AND TRANSFORMERS LABORATORY



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COURSE OUTCOME

- 1 Draw the circuits for a given electrical machine
- 2 Obtain the performance characteristics of DC Generators.
- 3 Analyze the operating behavior of DC motors under various loading condition
- 4 Obtain the equivalent circuit parameters of transformer
- 5 Know the different starting and control measures involved in the operation of electrical machines

COURSE CODE & NAME: C208 - 1904GE351&LIFE SKILLS: SOFT SKILLS

COURSE OUTCOME

- 1 Communicate effectively in their business environment.
- 2 Improve their interpersonal skills, which are mandatory in a corporate world.
- 3 Brand themselves to acquire a job.
- 4 Involve in corporate etiquettes.
- 5 Survive in the different situations.

COURSE CODE & NAME: C209 - 1901MCX02&CONSTITUTION OF INDIA

COURSE OUTCOME

- 1 Understand the background and foundations of Indian Constitution
- 2 Describe the structure and function of central government
- 3 Discuss the structure and function of state government
- 4 Explain the constitution functions and parliamentary system in India
- 5 Understand about the Indian society

COURSE CODE & NAME: C210 - 1902EE401&GENERATION, TRANSMISSION AND DISTRIBUTION

COURSE OUTCOME

- 1 Infer knowledge on the basics of generation, transmission and distribution of power system.
- 2 Apply the voltage distribution in insulator strings and lines.
- 3 Develop expressions for the computation of transmission line parameters and UG cables.
- 4 Obtain the voltage regulation and efficiency from the equivalent circuit of the transmission Lines.
- 5 Develop the transmission line and modern substation layout with grounding techniques.

COURSE CODE & NAME: C211 - 1902EE402&SYNCHRONOUS AND ASYNCHRONOUS MACHINES - COURSE OUTCOME

- 1 Investigate the percentage regulation of three-phase AC generator using various regulation methods.
- 2 Inspect the performance characteristics of three-phase synchronous motor by conducting various test
- 3 Identify the performance characteristics of three-phase induction motor by conducting OC and SC test
- 4 Gain Knowledge about the concepts of starters & speed control methods
- 5 Describe the characteristics behaviour of various types of single-phase induction motor and special machines



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COURSE CODE & NAME: C212 –1902EE403&LINEAR INTEGRATED CIRCUITS

COURSE OUTCOME

- 1 Explain the fundamentals of IC technology and fabrication procedure for diode, capacitance, resistance, FET and typical circuits
- 2 Describe the functional block diagram, performance parameters and frequency compensation techniques of operational amplifier
- 3 Construct analog circuits using operational amplifier for linear and non-linear applications
- 4 Build signal conversion circuits and filters using operational amplifier.
- 5 Design simple analog circuits for the given application using timer, VCO, PLL and voltage regulator ICs

COURSE CODE & NAME: C213 - 1902EE404- COMMUNICATION ENGINEERING

COURSE OUTCOME

- 1 Construct an angle modulation system
- 2 Construct a sampled and quantized signal for baseband transmission
- 3 Describe the concepts of Digital modulation schemes for digital data transmission
- 4 Describe the role of digital transmission
- 5 Apply cellular concepts in mobile communication networks

COURSE CODE & NAME: C214 - 1901GEX04&BIOLOGY FOR ENGINEERS

COURSE OUTCOME

- 1 Classify the bio system based on morphological , bio chemical and ecological matters
- 2 Describe the concept of recessiveness and dominance during the passage of genetic material from parent off spring
- 3 Classify enzymes by distinguishing different mechanism of enzyme reaction
- 4 Apply thermodynamic system to biological system
- 5 Describe the modern bio inspired engineering techniques



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COURSE CODE & NAME: C215 - 1902EE451&SYNCHRONOUS AND ASYNCHRONOUS MACHINES LABORATORY

COURSE OUTCOME

- 1 Investigate various regulation methods of synchronous machines by conducting OCC and SCC test
- 2 Experiment on synchronous machines for obtaining performance characteristics by conducting V and inverted V curve test
- 3 Compute the performance characteristics of single phase and three-phase induction motor by conducting load, no load and blocked rotor test
- 4 Construct the characteristics of Synchronous Induction machines
- 5 Study about various types of starters in AC motor

COURSE CODE & NAME: C216 – 1902EE452 & ANALOG AND DIGITAL INTEGRATED CIRCUITS LABORATORY

COURSE OUTCOME

- 1 Apply various types of biasing and amplifier configuration
- 2 Use simplification techniques to design a combinational hardware circuit
- 3 Design and Implement combinational and sequential circuits
- 4 Design and Implement a simple digital system
- 5 Apply analog and digital electronic circuits

COURSE CODE & NAME: C217 - 1904GE451&LIFE SKILLS: VERBAL ABILITY

COURSE OUTCOME

- 1 Use new words in their day-to-day communication
- 2 Gather information swiftly while reading passages.
- 3 Students are proficient during their oral and written communication.
- 4 Rearrange the sentences and able to identify the voice of the sentence.
- 5 Students use their knowledge of the best practices to craft effective business documents

COURSE CODE & NAME: C218 - 1901MCX01 & ENVIRONMENTAL SCIENCE

COURSE OUTCOME

- 1 Describe the physical, chemical and biological components of the eco systems and their function.
- 2 Describe the water quality parameter and removal of pollutants
- 3 Describe the scientific principles to analysis various environment implications in day-to-day life.
- 4 Describe the various environmental protection acts for key social systems affecting the environment.
- 5 Summarize the major diseases, women welfare child development and the impacts of population explosion



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COURSE CODE & NAME: C219 - 1902EE501&MEASUREMENTS AND INSTRUMENTATION

COURSE OUTCOME

- 1 Describe the basic functional elements of measuring instruments and the errors in the measurements systems
- 2 Discuss the operation and applications of measuring instrument under typical environment.
- 3 Identify the unknown values of resistor, inductor and capacitor of given network using suitable bridge circuit.
- 4 Explain the construction and working principle of various storage and display devices.
- 5 Make use of sensor and transducers in measuring purpose using data acquisition system

COURSE CODE & NAME: C220 - 1902EE502 & LINEAR CONTROL SYSTEMS

COURSE OUTCOME

- 1 Calculate transfer function of various systems using block diagram reduction, signal flow graph technique.
- 2 Investigate the time response behaviour of first and second order system using time domain specification.
- 3 Analyse the frequency response of open loop transfer function using bode plot and polar plot.
- 4 Examine the concept of Stability and study of curves
- 5 Analyse Compensator and Controllers

COURSE CODE & NAME: C301 - 1902EE503&POWER ELECTRONICS

COURSE OUTCOME

- 1 Understand the structure and characteristics of power semiconductor devices.
- 2 Elucidate the operation of power modulators.
- 3 Analyze the control techniques used in power modulators
- 4 Analyze the performance parameters of power converters
- 5 Explain the operation and characteristics of various power electronics converters.

COURSE CODE & NAME: C302 - 1903EE002 & ELECTRICAL MACHINE DESIGN

COURSE OUTCOME

- 1 Explain the major considerations in electrical machine design by considering thermal, magnetic and electric loadings.
- 2 Calculate the design parameters of a DC machine.
- 3 Compute the design parameters of a transformer.
- 4 Calculate the design parameters of Induction motor.
- 5 Calculate the design parameters of synchronous machine.

COURSE CODE & NAME: C303 - 1902CS503&OBJECT ORIENTED PROGRAMMING

COURSE OUTCOME

- 1 Define the features of C++ supporting object oriented programming



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- 2 Understand the major object-oriented concepts such that constructor and operator overloading in C++
- 3 Identify classes, objects, methods of a class and relationships among them in Java
- 4 Identify to implement error handling techniques using exception handling
- 5 Understand the python programming concepts.

COURSE CODE & NAME: C304 - 1902EE551&CONTROL AND INSTRUMENTATION LABORATORY

COURSE OUTCOME

- 1 Investigate various characteristics of sensors and transducers
- 2 Make use of bridge networks in measurement circuits for measuring unknown values
- 3 Discuss the concept of controllers and compensators
- 4 Analyse the stability of LTI system using software tool
- 5 Perform the signal conditioning, position control system operation and power measurements.

COURSE CODE & NAME: C304 - 1902CS554&OBJECT ORIENTED PROGRAMMING LABORATORY

COURSE OUTCOME

- 1 Develop program to illustrate basic concept of OOP features and C++ concept
- 2 Implement the program using unary and binary operator overloading in C++ CO3
- 3 Write program to implement concept of inheritance and polymorphism in C++ CO4
- 4 Understand and Apply Object oriented features and Java concepts
- 5 Develop and implement program using exception handling and templates in Java

COURSE CODE & NAME: C311 - 1904GE551&LIFE SKILLS: APTITUDE – 1

COURSE OUTCOME

- 1 Understand about number system
- 2 Gather information about ratio and proportion, averages
- 3 Discuss about percentages, profit and loss
- 4 Describe about coding and decoding, direction sense
- 5 Understand the number and letter series number

COURSE CODE & NAME: C313 - 1902EE601&SOLID STATE DRIVES

COURSE OUTCOME



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- 1 Remember the fundamentals of motor load system
- 2 Explain about single and multi-quadrant operation of power converter fed dc drives.
- 3 Describe the speed control techniques of induction motor and synchronous motor drives
- 4 Calculate the Voltage, Current, Speed and Torque parameters of DC and AC drives
- 5 Analyse the design procedure of speed & current controllers and able to explain the closed loop operation of Dc and AC drives

COURSE CODE & NAME: C314 - 1902EE602&POWER SYSTEM ANALYSIS

COURSE OUTCOME

- 1 Explain the fundamentals of power system with the aid of single line diagram and per unit analysis.
- 2 Develop power flow models by addressing various power flow problems using iterative techniques.
- 3 Apply the symmetrical fault calculation methods for the unbalanced network using z bus matrix
- 4 Apply the unsymmetrical fault calculation methods for the unbalanced network using sequence network analysis
- 5 Make use of power system stability studies for planning and operation of network through various solution techniques

COURSE CODE & NAME: C315 - 1902EE603 &MICROPROCESSORS AND MICROCONTROLLERS

COURSE OUTCOME

- 1 Explain the architecture, memory organization, timing diagram and interrupt structure of microprocessor
- 2 perform mathematical operation using 8085 & 8051 instruction set
- 3 Explain the architecture, interrupt, memory organization and addressing modes of 8051
- 4 Practice interfacing of commonly used programmable peripheral devices using 8085 and 8051.
- 5 Make use of 8051 controller for the control of simple electrical systems

COURSE CODE & NAME: C316 - 1902EE651&POWER ELECTRONICS AND DRIVES

LABORATORY

COURSE OUTCOME

- 1 Construct experiments on power electronic component for obtaining characteristics curve
- 2 Make use of half-controlled converter for DC motor
- 3 Identify the characteristic plot of IGBT based PWM inverter
- 4 Infer the operation of AC voltage controller and Switched mode power converter
- 5 Make use of Simulation of PE circuits

COURSE CODE & NAME: C317 - 1902EE652&MICROPROCESSORS AND MICROCONTROLLERS LABORATORY

COURSE OUTCOME



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- 1 Perform mathematical operations and control instructions using 8085 processor
- 2 Practice interfacing of commonly used programmable peripheral interfaces using 8085
- 3 Perform arithmetical operations using 8051 microcontroller
- 4 Practice interfacing of commonly used programmable peripheral interfaces using 8051
- 5 Develop assembly language program to control simple electrical system using 8085, 8051

COURSE CODE & NAME: C401 - 1901MGX07&UNIVERSAL HUMAN VALUES AND ETHICS

COURSE OUTCOME

- 1 Understand the significance of value inputs in a classroom and start applying them in their life and profession
- 2 Distinguish between values and skills, happiness and accumulation of physical facilities, the Self and the Body, Intention and Competence of an individual, etc.
- 3 Understand the value of harmonious relationship based on trust and respect in their life and profession
- 4 Understand the role of a human being in ensuring harmony in society and nature.
- 5 Distinguish between ethical and unethical practices, and start working out the strategy to actualize a harmonious environment wherever they work

COURSE CODE & NAME: C402 - 1902EE701&POWER SYSTEM OPERATION AND CONTROL

COURSE OUTCOME

- 1 Describe the types of load and its characteristics
- 2 Make use of the importance of real power & frequency control in power system.
- 3 Analyze the various methods of reactive power & voltage control in power system
- 4 Calculate the solution for unit commitment and least cost methodology for power generation.
- 5 Describe the SCADA, EMS and various security schemes in power system

COURSE CODE & NAME: C403 - 1901HS001&INNOVATION & ENTREPRENEURSHIP FUNDAMENTALS

COURSE OUTCOME



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- 1 Explain the basics of Entrepreneurship & Innovation
- 2 Analyze Leadership Styles and compare them
- 3 Choose business models based on the requirement and justify with cases
- 4 Develop a method or mechanism for Innovation marketing and sustainability.
- 5 Develop a Business Model and Strategy framework and demonstrate through presentation

COURSE CODE & NAME: C404 - 1901HS006 & DESIGN THINKING FOR INNOVATION

COURSE OUTCOME

- 1 Describe Key Concepts and basics of Design Thinking Principles
- 2 Elaborate the Design Thinking Approach through IDEO's method & Customer Journey Maps
- 3 Conduct user interviews and synthesize learnings to uncover insights and identify opportunities for innovation
- 4 Develop Design Driven Innovative Solutions to Real World Problems

COURSE CODE & NAME: C406 - 1902EE751 & POWER SYSTEM SIMULATION

LABORATORY

COURSE OUTCOME

- 1 Understand and to solve the basic problems in power systems
- 2 Compute and model the transmission line parameters
- 3 Analyse the load flow in power systems
- 4 Model the power system dynamics components
- 5 Analyse the stability of the power systems

COURSE CODE & NAME: C407 - 1903EE022 & FLEXIBLE AC TRANSMISSION SYSTEMS

COURSE OUTCOME

- 1 Discuss about various FACTS devices used in Reactive power control
- 2 Apply the characteristics of static VAR compensator reactive power control applications
- 3 Make use of different modes of operation of TCSC for stability studies
- 4 Investigate the characteristics of voltage source converter based FACTS controllers
- 5 Correlate the interaction between various FACTS controller using linear control & genetic algorithms

COURSE CODE & NAME: C408 - 1903EE025 & HIGH VOLTAGE ENGINEERING

COURSE OUTCOME



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- 1 Understand the overvoltage phenomenon.
- 2 Acquire the knowledge on dielectric breakdown
- 3 Understand the Generation of High Voltage And High Current.
- 4 Understand the Measurement method of High Voltage And High Current
- 5 Explain the Insulation Coordination and High Voltage Testing

COURSE CODE & NAME: C409 - 1904EE851 & PROJECT – VIVA VOCE

COURSE OUTCOME

- 1 Formulate a real world problem, identify the requirement and develop the design solutions
- 2 Identify technical ideas, strategies and methodologies
- 3 Utilize the new tools, algorithms, techniques that contribute to obtain the solution of the project
- 4 Perform test and validate through conformance of the developed prototype
- 5 Analysis the cost Effectiveness of the project
- 6 Explain the acquired knowledge through preparation of report and oral presentations