TEEGALAKRISHNAREDDYENGINEERINGCOLLEGE

(UGC-Autonomous)

(Sponsored by TKR Educational Society, Approved by AICTE, Affiliated to JNTUHAccreditedbyNAACwith'A'Grade.AccreditedbyNBA

Medbowli,Meerpet,Balapur(M),Hyderabad,Telangana-500097

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CollegeCode:R9

Department of Electrical engineering

R18

COURSENAME: Mathematics – I **COURSECODE:**MA101BS

CourseOutcomes:	
1	Write the matrix form of a set of linear equations and to analyze the solution of the system of equations.
2	Reduce the Quadratic form to Canonical form.
3	Describe the nature of sequence and series.
4	Apply the mean value theorems.
5	Calculate the extreme values of functions of two variables with / without constrains

COURSENAME: EngineeringChemistry **COURSECODE:**CH102BS

CourseOutcomes:	
1	Applytheprincipleofpotablewaterforindustrialanddomesticpurposes.
2	Identifytheelectrolyticandelectrochemicalcellswithdifferenttypesofbatteriesandmakeuse ofcorrosioncontrolmethodsinindustry.
3	Explorethefundamentalpropertiesofpolymersandothermaterialsinengineeringfield.
4	Distinguishvarioustypesoffuelsandtheirapplicationsinday-to-daylife.
5	Developunderstandingofengineeringmaterialslikecement,smartmaterialsand Lubricants

COURSENAME :Basic Electrical Engineering **COURSECODE:** EE103ES

CourseOutcomes:	
1	Verify the basic Electrical circuits through different experiments.
2	Evaluate the performance calculations of Electrical Machines and Transformers through various testing methods.
3	Analyze the transient responses of R, L and C circuits for different input conditions.
4	To determine the performance of different types of DC, AC machines and transformers
5	To measure the electrical parameters for different types of DC and AC circuits using conventional and theorems approach.

COURSENAME: Engineering Workshop **COURSECODE:**ME105ES

CourseOutcomes:

1	Demonstrate various machines, tools and their operations.
2	Apply different workshop trades like fitting, carpentry, foundry and welding.
3	Practice workshop trades like Tim smithy, Black smithy.
4	Identify suitable tools for different trades of engineering processes including drilling, material removing, measuring, chiseling.
5	5 Apply basic electrical engineering knowledge for house wiring practice

COURSENAME: English **COURSECODE:**EN105HS

CourseOutcomes:	
1	Use English Language effectively in spoken and written communication.
2	Comprehend the given texts and respond appropriately.
3	Communicate confidently in various contexts and different cultures.
4	Demonstrate basic proficiency in English including reading and listening Comprehension, writing and speaking skills.
5	Improve language proficiency to meet their academic and professional needs.

COURSENAME: Engineering Chemistry Lab **COURSECODE:**CH106BS

CourseOutcomes:	
1	Develop experimental skills to design new experiments in engineering
2	Determination of parameters like hardness and chloride content in water
3	Estimation of rate constant of a reaction from concentration – time relationships.
4	Determination of physical properties like adsorption and viscosity
5	Calculation of Rf values of some organic molecules by TLC technique

COURSENAME: English Language and Communication Skills Lab **COURSECODE:**EN107HS

CourseOutcomes:	
1	Employ the nuances of English language through audio-visual experience andgroup activities.
2	Articulate a neutral accent of English for intelligibility by overcoming mothertongue influence.
3	Develop the skill of using appropriate language in various speaking contexts.
4	Take part in oral presentations using formal language.

5	Improve speaking skills with clarity and confidence which in turn enhance theirinterpersonal skills.

COURSENAME: Basic Electrical Engineering Lab **COURSECODE:**EE108ES

CourseOutcomes:	
1	Verify the basic Electrical circuits through different experiments.
2	Evaluate the performance calculations of Electrical Machines and Transformersthrough various testing methods.
3	Analyze the transient responses of R, L and C circuits for different input conditions.
4	To determine the performance of different types of DC, AC machines andTransformers.
5	To measure the electrical parameters for different types of DC and AC circuits usingconventional and theorems approach.

COURSENAME: Mathematics – II **COURSECODE:**MA201BS

CourseOutcomes:	
1	Determine different types of ordinary differential equations of first order.
2	Apply the concept of differential equation to real world problems.
3	Apply the concept of multiple integrals to find areas, volumes.
4	Evaluate the centre of mass and gravity for cubes, sphere and rectangularparallelepiped.
5	Calculate the line, surface and volume integrals and converting them from one toanother.

COURSENAME: AppliedPhysics **COURSECODE:**AP202BS

CourseOutcomes:	
1	Understandphysicalworldfromfundamentalpointofviewbytheconceptsof Quantummechanicsandvisualizethedifferencebetweenconductor, semiconductor,andaninsulatorbyclassificationofsolids.

2	IdentifytheroleofsemiconductordevicesinscienceandengineeringApplications.
3	Explorethefundamentalpropertiesofdielectric,magneticmaterialsandenergy fortheirapplications.
4	AppreciatethefeaturesandapplicationsofNanmaterials.
5	UnderstandvariousaspectsofLasersandOpticalfiberandtheirapplicationsin diversefields.

COURSENAME: Programming for Problem Solving **COURSECODE:**CS203ES

CourseOutcomes:	
1	Build the algorithm for the given unsolved problems.
2	Apply the concepts of Arrays, Pointers, Strings and structures to find the solutionfor given problem.
3	Apply the various pre-processor commands in a given different real time situations
4	Dissect a problem into sub functions to develop modular reusable code
5	Demonstrate various searching and sorting techniques along with the complexityanalysis

COURSENAME: Engineering Graphics **COURSECODE:**ME204ES

CourseOutcomes:	
1	Apply the principles of Engineering Graphics to create Engineering Drawings of various geometric constructions, conic sections, curves and scales as per BISstandards.
2	Construct orthographic projections for points, lines and planes in differentquadrants and Auxiliary views.
3	Draw the sectional views and true shape of sections of solids, by applyingprinciples of projections.
4	Draw the development of surfaces and intersections of solids in real timesituations.
5	Develop isometric and orthographic views of the objects.

COURSENAME: Applied Physics Lab **COURSECODE:**AP205BS

CourseOutcomes:	
1	Able to study the(V-I/P-I) characteristics of LED, LASER and Solar cell.
2	Able to understand the energy gap of semiconductor diode.
3	Correlate the theory of Hall effect with experiment by determining the Hallcoefficient.
4	Examine the Bending losses for different Optical fibre cables.
5	Able to understand various concepts-Resonance, Time constant and Magnetic field using LCR, RC, Stewart and Gees circuits.

COURSENAME: Programming for Problem Solving Lab **COURSECODE:**CS206ES

CourseOutcomes:

1	Formulate The Algorithms for Simple Problems
2	Translate the given algorithms to C program.
3	Correct the logical errors found during program execution
4	Make use of pointers in different types to modularize the code with functions.
5	Apply the appropriate sorting techniques for the given list of elements.

COURSENAME: Environmental Studies **COURSECODE:***MC209ES

CourseOutcomes:	
1	The students able to know basic concept of ecological perspective and the value ofthe environment.
2	The students able to understand the significance of various natural resources andits management.
3	The students able to demonstrate a comprehensive understanding of the world'sbiodiversity and the importance of its conservation
4	The students able to identify different types of pollution and their control measures, discover effective methods of waste management and come out withbest possible solutions.
5	The students able to raise awareness about environmental laws and sustainabledevelopment.

5	equivalent parameters of two port network and resonance frequency of RLC circuit.

COURSENAME: Analog electronics **COURSECODE:**EE303PC

CourseOutcomes:	
1	Apply the concepts of diode, transistors and amplifiers
2	Use the principles of FET for high frequency circuits.
3	Explain about multistage amplifiers and power amplifiers
4	Summarize various feedback amplifiers and oscillators.
5	Design circuits using OP-AMP for various application

COURSENAME: Electrical circuit analysis **COURSECODE**:EE302PC

CourseOutcomes:	
1	Apply network theorems for the analyses of electrical circuits..
2	Calculate the solution of first & second order networks.
3	Compare the transient and steady-state response of electrical circuits with DC and ACExcitations.
4	Analyze circuits in the sinusoidal steady-state (single-phase and three-phase)..
5	To test the polynomial transformers for star and delta connections .

COURSENAME: Electrical machines -1 **COURSECODE:**EE304PC

CourseOutcomes:	
1	Identify different parts of a DC machine &understand its operation
2	Use the testing methods to predetermine the efficiency of DC machines
3	Analyze single phase and three phase transformers circuits.
4	Construct the single phase and three phase transformer circuits.
5	Discovertheexceptionshandlingprocessinobject-orientedprogramming.

COURSENAME: Electromagnetic fields **COURSECODE**:EE305PC

CourseOutcomes:	
1	Explain the basic laws of electromagnetism.
2	Describe the electric and magnetic fields for simple configurations under static conditions
3	Analyze time varying electric and magnetic fields.
4	Use Maxwell's equation in different forms and different media.
5	Analyze the propagation of EM waves in conductors..

COURSENAME:Engineering mechanics **COURSECODE**:EE301ES

CourseOutcomes:	
1	Solve problems related to resultant of forces acting on a body and equilibrium of a bodysubjected to a system of forces.
2	Solve problem of bodies' subject antifriction and find Centre of Gravity.
3	Calculate moment of inertia of Eigen section.
4	Solve problem on Particle dynamics and work kinetic energy.
5	Solve problem of D'Alembert's principle and its applications, work energy principle andkinetics of rigid body rotation..

COURSENAME:Electrical circuits lab COURSECODE:EE308PC

CourseOutcomes:	
1	Analyze complex DC and AC linear circuits
2	Apply concepts of electrical circuits across engineering
3	Evaluate response in a given network busing theorems.
4	Calculate the parameters in two port networks
5	Evaluate the time response and locus diagrams of first order electrical circuits.

COURSENAME: Analog electronics lab **COURSECODE:**EE307PC

CourseOutcomes:	
1	Use P-N junction diode in rectifiers and filters..
2	Demonstrate transistor and amplifier characteristics.
3	Analyze various circuits using Op-Amp.
4	Design different oscillator circuits.
5	Construct different types of power amplifiers.

COURSENAME:Electrical machines lab-1 **COURSECODE:**EE306PC

CourseOutcomes:	
1	Experiment to start and control the Different DC Machines..
2	Assess the performance of different machines using different testing methods
3	Identify different conditions required to be satisfied for self-excitation of DC Generators
4	Separate iron losses of DC machines in to different components
5	Identify various parts of electrical DC machines.

COURSENAME: ProfessionalAndEngineeringandEthics **COURSECODE:**MC3HS01

CourseOutcomes:

1	Togaintheknowledgeondifferentcodesofethics,suchaspersonal&professional, accountability,controllability,governability,lifeskillsandconsequentialism.
2	Toperceivemoralvaluesindifferentfieldsindifferentways.
3	Tofollowvalue-basededucationsystembylearningdifferenttechniques.
4	Toassesworkplaceresponsibilitiesbyfollowingdifferentcasestudies.
5	Torealizetheworkplaceresponsibilities,honesty,integrity,andpromise-keeping& trustworthiness,loyalty,fairness.

COURSENAME: QuantitativeAptitude **COURSECODE:**MC3BS02

CourseOutcomes:	
1	ToUnderstandandPracticeSimplifications.
2	ToUnderstandandPracticetheProblemsonAges.
3	ToUnderstandandPracticetheQuadraticEquations.
4	ToUnderstandandPracticearrangementandselectionintheirdailylife.
5	ToUnderstandandPracticecommercialmathematics.

COURSENAME: Power Electronics **COURSECODE:**EE501PE

CourseOutcomes:	
1	Explain the operation of various power semiconductor devices its characteristics andcommutation circuits..
2	Illustrate the operation of power converters with various loads..
3	Analyze the operation of AC voltage controllers..
4	Explain the operation of various types of choppers with different loads..
5	Discuss the operation of inverters and voltage control techniques..

COURSENAME: Digital electronics **COURSECODE**: EE403PC

CourseOutcomes:	
1	Apply the concept of Boolean algebra to simplify SOP and POS Boolean functions.
2	Construct combinational logical circuits using K-map method.
3	analyze Counters and Register circuits using Flip Flops.
4	Evaluate various Analog to Digital converters & Digital to Analog converters using OP-AMP..
5	Develop ROM and RAM using Programmable logic devices

COURSENAME: Electrical machines -II **COURSECODE:**EE407PC

CourseOutcomes:	
1	Analyze the concepts of rotating magnetic fields.
2	Discuss the operation of induction machines.

3	Explain the Construction, Principle of operation, Characteristics & Regulation of SynchronousGenerator.
4	Analyze the operation of synchronous motors and its salient features..
5	Analyze the principle of operation of single-phase motors and special motors with applications

COURSENAME: Numerical Methods &Complex Variables **COURSECODE:**MA401BS

CourseOutcomes:	
1	Estimate the value for the given data using interpolation.
2	Find the numerical solutions for a given ODE's..
3	Analyze the complex function with reference to their analyticity, integration using Cauchy'sintegral and residue theorems.
4	Apply Taylor's and Laurent's series expansions of complex Function.
5	Explain the transformations on different planes.

COURSENAME: Power system-I **COURSECODE:**EE405PC

CourseOutcomes:	
1	Interpret the concepts of power systems..
2	Explain the operation of conventional generating stations and renewable sources of electrical power
3	Discuss about the different power tariff methods.
4	Determine the electrical circuit parameters of transmission lines.
5	Sketch the layout of substation and underground cables and corona

COURSENAME: Power Electronics lab **COURSECODE:**EE506PC

CourseOutcomes:	
1	Explain the operating principles of various power electronic converters.
2	Use power electronic simulation packages& hardware to develop the power converters.
3	Experiment the appropriate converters for various applications
4	Demonstrate the various inverter circuits.
5	Produce the output waveforms of chopper circuits

COURSENAME: Digital electronics lab **COURSECODE:**EE406PC

CourseOutcomes:	
1	Implement the logic gates using universal gates and verify the truth tables
2	Interpret the Boolean expression of SOP and POS using logic gates.

3	Construct combinational logical circuits (Adders, Sub tractors, Encoders, Multiplexers).
4	Evaluate the SR, D, T and JK Flip Flops with their truth tables.
5	Design Synchronous and Asynchronous Sequential logical circuits

COURSENAME: Electrical machines lab -II **COURSECODE:**EE407PC

CourseOutcomes:	
1	Calculate the performance of different machines using different testing methods
2	Demonstrate the performance of transformers.
3	Determine the V and inverted V curves of synchronous motor.
4	Discuss the active and reactive power flows in synchronous machines
5	Demonstrate different machines and control the speed and power factor

COURSENAME: GenderSensitizationLab **COURSECODE:**MC4HS03

CourseOutcomes:	
1	Studentswillhavedevelopedabetterunderstandingofimportantissuesrelatedtogender incontemporary India.
2	Studentswillbesensitizedtobasicdimensionsofthebiological,sociological, psychologicalandlegalaspectsofgender.Thiswillbeachievedthroughdiscussionofmat erialsderivedfromresearch,facts,everydaylife,literatureandfilm.
3	Studentswillattainafinergraspofhowgenderdiscriminationworksinoursocietyandhow tocounterit.Studentswillacquireinsightintothegendereddivisionof labouranditsrelationtopoliticsandeconomics.
4	Menandwomenstudentsandprofessionalswillbebetterequippedtoworkand livetogetherasequals.Studentswilldevelopasenseofappreciationofwomeninallwalk s oflife.
5	Throughprovidingaccountsofstudiesandmovementsaswellasthenewlawsthatprovide protectionandrelieftowomen,thetextbookwillempowerstudentsto understandandrespondtogenderviolence.

COURSENAME: Quantitative Logical and Reasoning **COURSECODE:**MC4BS03

CourseOutcomes:	
1	Studentswillhavedevelopedabetterunderstandingofimportantissuesrelatedtogender incontemporary India.
2	Students will be sensitized to basic dimensions of the biological, sociological,psychologicalandlegalaspectsofgender.Thiswillbeachievedthroughdiscus sion ofmaterialsderivedfromresearch,facts,everydaylife,literatureandfilm.

3	Studentswillattainafinergraspofhowgenderdiscriminationworksinoursocietyandhow tocounterit.Studentswillacquireinsightintothegendereddivisionof labouranditsrelationtopoliticsandeconomics.
4	Menandwomenstudentsandprofessionalswillbebetterequippedtoworkand livetogetherasequals.Studentswilldevelopasenseofappreciationofwomenin allwalksoflife.
5	Throughprovidingaccountsofstudiesandmovementsaswellasthenewlawsthat provideprotectionandrelieftowomen,thetextbookwillempowerstudentstounderstan dandrespondtogenderviolence.

COURSENAME: PowerElectronics **COURSECODE:**EE501PE

CourseOutcomes:	
1	Discuss the fundamentals of classical and modern control systems.
2	Explain various electrical and mechanical systems.
3	Sketch time and frequency responses of first and second-order systems.
4	Analyze stability of control systems.
5	Analyze the linear discrete time system in State space

COURSENAME: Power system II **COURSECODE:**EE502PE

CourseOutcomes:	
1	Calculate the performance of transmission lines.
2	Apply load compensation techniques to control reactive power.
3	Interpret the application of per unit quantities and transient's phenomenon of transmission lines.
4	Discuss overvoltage protection and Insulation coordination of transmission Lines
5	Compute the fault currents for symmetrical and unsymmetrical faults.

COURSENAME: Measurements andInstrumentation **COURSECODE:**EE503PE

CourseOutcomes:	
1	Explain different types of measuring instruments, their construction, operation and characteristics
2	Choose the instruments suitable for typical measurements.
3	Analyze the concept of electrical power and energy measurement.
4	Calculate error, estimate correction factor and calibrate the instrument transformers.
5	Analyze the working of various DC and AC bridges.

CollegeCode:R9

COURSENAME: Business Economics andfinancial analysis **COURSECODE:**SM504MS

CourseOutcomes:	
1	Comprehend the microeconomic factors in related to demand analysis and its forecasting.
2	Apply the theory of production function and Cost concepts to determine the Break-EvenAnalysis.
3	Gain knowledge of different market structures, pricing strategies and different forms businessorganization.
4	Study and analyze the principles of accounting to record, classify and summarize varioustransactions in books of accounts for preparation of final accounts.
5	Learn Fundamental accounting concepts and Ratio analysis

COURSENAME: Advancedcommunication skills lab **COURSECODE:**EN508HS

CourseOutcomes:	
1	Develop LSRW skills and soft skills.
2	Demonstrate the nuances of language through group activities and oral presentations.
3	Build written communication skills to meet the needs of their academic and career endeavors.
4	Take part in interviews with confidence thereby enhancing their employability skills.
5	Choose appropriate language in their social and professional communication.

COURSENAME: Measurements andInstruments lab **COURSECODE:**EE507PC

CourseOutcomes:	
1	Experiment on Energy meter & PF meter
2	Calculate the parameters by using various bridges.
3	Find the accuracy of any instrument by performing experiment
4	Calibrate PMMC instrument using D.C potentiometer
5	Perform experiment to calibrate the instruments.

COURSENAME: PowerElectronicsLab **COURSECODE:**EE506PC

CourseOutcomes:	
1	Experiment on Energy meter & PF meter
2	Calculate the parameters by using various bridges.
3	Find the accuracy of any instrument by performing experiment
4	Calibrate PMMC instrument using D.C potentiometer

5	Perform experiment to calibrate the instruments.

COURSENAME: Power system simulation lab **COURSECODE:**EE505PC

CourseOutcomes:	
1	Analyze the voltage distribution across insulator string.
2	Perform various transmission line calculations
3	Interpret different circuits time constants
4	Perform the resonant circuit in MATLAB/SIMULINK
5	Analyze the experimental data and draw the conclusions.

COURSENAME: Intellectual Property Rights **COURSECODE:***MC510

CourseOutcomes:	
1	Thecourseisdesignedtoprovidecomprehensiveknowledgetothestudents regardingIndianpositionofthePatentLawandimportanceofIPR
2	Trademarksanddesignswithrespecttoproductspreventsentryintothemarket andensuresthatconsumerscanrelyonthequalityandsafetyofgenuineproducts
3	Tohelpthestudentstolearnandunderstandthereasonforpursuingthecourse andhelpstoidentifywhathewillbeabletodoattheendofthecourse.
4	Tradesecretsaresecretpracticesandprocessesthatgiveacompanyacompetitive advantageoveritscompetitors.
5	Theprimaryfunctionofintellectual propertyrights(IPRs)istoprotectand stimulatethedevelopmentanddistributionofnewproductsandtheprovisionofnewservi cesbasedonthecreationandexploitationofinventions,trademarks, designs,creativecontentorotherintangibleassets.

COURSE : NAME Power system operationand control **COURSECODE:**EE604PC

CourseOutcomes:	
1	Explain the concept of different load flow techniques.
2	Calculate the economic load dispatch scheduling of various power stations.
3	Apply the different Load frequency control techniques
4	Illustrate and improve the power system stability
5	Interpret the concept of SCADA, EMS and load forecasting techniques.

COURSENAME:Microprocessor andMicrocontrollers **COURSECODE:**EE602PC

CourseOutcomes:	
1	Apply the concept of addressing modes and data transfer instructions of 8086 microprocessorsfor Arithmetic and Logical Unit Operation.
2	Analyze the concepts of internal architecture, organization of 8051 to solve real timeapplications.
3	Analyze various interfacing devices with 8051 microcontrollers.
4	Evaluate simple programs using Assembly Language Program of ARM and theirinstruction formats.
5	Explain the architecture of Advanced ARM Processors.

COURSENAME: Power system protection **COURSECODE:**EE603PC

CourseOutcomes:	
1	Analyze electromagnetic, static and microprocessor-based relays
2	Apply technology to protect power system components.
3	Calculate relay settings of over current and distance relays.
4	Identifyappropriatemethodforcodegeneration.
5	Analyze quenching mechanisms used in air, oil and vacuum circuit breakers

COURSENAME **COURSECODE:**EE601PC

CourseOutcomes: SignalsandSystems	
1	Differentiatevarioussignalfunctions.
2	Representanyarbitrarysignalintimeandfrequencydomain.
3	Understandthecharacteristicsof linear timeinvariantsystems
4	Analyzethesignalswithdifferenttransformtechnique
5	The ability to find correlation, CDF, PDF and probability of a given event.

CollegeCode:R9

COURSENAME: Microprocessor andMicrocontrollers lab **COURSECODE:**20EE6PC05

CourseOutcomes:	
1	Demonstrate the concept of addressing in 8086 for arithmetic, logical, string and bit level operations
2	Experiment the concept of arithmetic, logical, bit manipulation and branching instructionsusing 8051 microcontrollers.
3	analyze the serial and parallel communication in 8051 Microcontroller.
4	Design the given system using interrupt controller in 8051 microcontrollers.
5	Build 8051 microcontroller with input and output devices.

COURSENAME: Power system lab **COURSECODE:**20EE6PC06

CourseOutcomes:	
1	Perform various load flow techniques
2	Explain Different protection methods
3	Determine A, B, C, D constants of a Transmission line
4	Observe the sequence impedances of three phase transformer and synchronous machines.
5	Analyze the Impedance and Admittance matrices

COURSENAME: Signalsand SystemsLab **COURSECODE:**EE607PC

CourseOutcomes:	
1	Understandtheconceptsofcontinuoustimeanddiscretetimesystems
2	Analyzesystemsincomplex frequencydomain
3	Understandsamplingtheoremanditsimplications
4	Design and analyze linear time-invariant (LTI) systems and compute its response
5	Analyze the spectral characteristics of signals using Fourier analysis

COURSENAME: EnvironmentalScience **COURSECODE:***MC609

CourseOutcomes:	
1	Gain knowledge about environment and ecosystem.
2	Students will learn about natural resource, its importance and environmental impacts of human activities on natural resource.
3	Gain knowledge about the conservation of biodiversity and its importance.
4	Aware students about problems of environmental pollution, its impact on human and ecosystem and control measures
5	Students will learn about increase in population growth and its impact on environment

CourseOutcomes: PowerSemiconductorDrivesCOURSECODE:EE612PE	
1	Able to describe the characteristics of power semiconductor devices and identify suitable switch choices for a given application.
2	Able to design and analyze single phase controlled rectifiers and its control circuit according to the specifications.
3	Able to design and analyze three phase controlled rectifiers and dual converters.
4	to design and analyze single phase and three phase inverters with reduced harmonics for practical applications
5	Acquire knowledge in voltage control in inverters especially about AC voltage controllers

COURSENAME; Utilization of electric power **COURSECODE:**EE863PE

CourseOutcomes:	
1	To introduce various electric drives and their applications
2	To discuss different methods of electrical heating and electric welding
3	To explain various techniques for designing indoor &outdoor lighting schemes
4	To illustrate the fundamentals on electrolytic and electrometallurgical processes
5	Applications of electrical power utilization

URSENAME::PowerSystemOperationandControl **COURSECODE:**EE604PC

CourseOutcomes:	
1	Gain knowledge on advanced matrix theory related to engineering
2	Solve problems using Linear Programming
3	Construct and understand the one-dimensional random variables
4	Analyze the computational methods in engineering
5	Gain knowledge in advanced mathematics

COURSENAME; Electrical distribution systems **COURSECODE**EE743PE

CourseOutcomes:	
1	To introduce the concepts and phenomenon of different Load modeling
2	To give an idea about the fundamental concepts of electrical power distribution
3	Ability to discuss functions of Substation
4	Formulate distribution networks for necessary variable calculation
5	Analyze the various concept Protective Devices

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COURSENAME: Digital signal processing**COURSECODE**: EE721PE

CourseOutcomes:	
1	Interpret, represent and process discrete/digital signals and sytems
2	Thorough understanding of frequency domain analysis of discrete time signals
3	Ability to design & analyze DSP systems like FIR and IIR Filter etc
4	Practical implementation issues such as computational complexity, hardware resource limitations as well as cost of DSP systems or DSP Processors.
5	Understanding of spectral analysis of the signals

COURSENAME: IndustryOrientedMiniProject/SummerInternship**COURSECODE:**EE702PC

CourseOutcomes:	
1	analyzetheproblemformulationandsolutionoftheselectedproject.
2	Developsolutionsforproblemsusingmoderntoolsforsustainabledevelopment.
3	Demonstrateethicalandprofessionalsustainabilitywhileworkinginateamand communicateeffectivelyforthebenefitofthesociety.
4	Understandtheengineering,financeandmanagementprinciples.
5	Developaelectricalapplicationorsolutiontocomplexengineeringproblemusing moderntools

COURSENAME: Seminar **COURSECODE: EE**703PC

CourseOutcomes:	
1	Identifyrecenttechnicaltopicsfrominteresteddomains.
2	analyzetheapplicabilityofmodern electricaltoolsandtechnology.
3	DevelopPresentationandCommunicationskills.
4	DevelopTechnicalreportpreparationskills.

COURSENAME: ProjectStage-I **COURSECODE:**EE704PC

CourseOutcomes:	
1	analyzetheproblemformulationandsolutionoftheselectedproject.
2	Developsolutionsforproblemsusingmoderntoolsforsustainabledevelopment.
3	Demonstrateethicalandprofessionalsustainabilitywhileworkinginateamand communicateeffectivelyforthebenefitofthesociety.
4	Understandtheengineering,financeandmanagementprinciples.

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CollegeCode:R9

COURSENAME: Renewable energy sources **COURSECODE**:MT831OE

CourseOutcomes:	
1	Able to understand the renewable energy sources available at present
2	Able to understand the solar energy operation and its characteristics
3	To educate the wind energy operation and its types.
4	To educate the tidal and geothermal energy principles and its operation
5	Able to understand the biomass energy generation and its technologies

COURSENAME: ElectricalDistributionSystems **COURSECODE:**EE822PE

CourseOutcomes:	
1	Understand the distribution system planning and automation
2	Explain the design considerations of sub transmission lines
3	Explain the design considerations of primary and secondary systems
4	Apply various protective devices and its coordination techniques to distribution system
5	Evaluate voltage drop and line loss calculations and design the capacitors and voltage regulating equipment to improve the power factor and voltage profile

Course Name : Utilization of electric power **COURSECODE**: EE863PE

CourseOutcomes:	
1	To introduce various electric drives and their applications
2	To discuss different methods of electrical heating and electric welding
3	To explain various techniques for designing indoor &outdoor lighting schemes
4	To illustrate the fundamentals on electrolytic and electrometallurgical processes
5	Applications of electrical power utilization

COURSENAME: ProjectStage-II **COURSECODE:**EE801PC

CourseOutcomes:	
1	analyzetheproblemformulationandsolutionoftheselectedproject.
2	Developsolutionsforproblemsusingmoderntoolsforsustainabledevelopment.
3	Demonstrateethicalandprofessionalsustainabilitywhileworkinginateamand communicateeffectivelyforthebenefitofthesociety.
4	Understandtheengineering,financeandmanagementprinciples.