



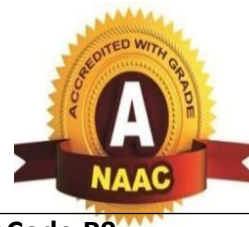
TEEGALAKRISHNAREDDYENGINEERINGCOLLEGE

(UGC-Autonomous)

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

Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



Indian in Character International in Excellence

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 constraints

COURSENAME:EngineeringChemistry

COURSECODE:CH102BS

CourseOutcomes:

1	Apply the principle of potable water for industrial and domestic purposes.
2	Identify the electrolytic and electrochemical cells with different types of batteries and make use of corrosion control methods in industry.
3	Explore the fundamental properties of polymers and other materials in engineering field.
4	Distinguish various types of fuels and their applications in day-to-day life.
5	Develop understanding of engineering materials like cement, smart materials and 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:

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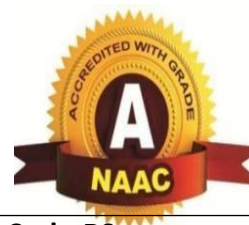
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1	Demonstrate various machines, tools and their operations.
2	Apply different workshop trades like fitting, carpentry, foundry and welding.
3	Practice workshop trades like Tim smithy, Black smithy.
4	Identify suitable tools for different trades of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

COURSENAME: English

COURSECODE: EN105HS

Course Outcomes:

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

Course Outcomes:

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 R _f values of some organic molecules by TLC technique

COURSENAME: English Language and Communication Skills Lab

COURSECODE: EN107HS

Course Outcomes:

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



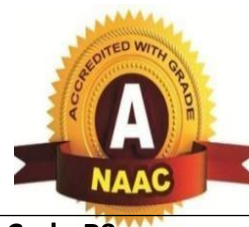
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5	Improve speaking skills with clarity and confidence which in turn enhance their interpersonal skills.
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COURSE NAME: Basic Electrical Engineering Lab

COURSE CODE: EE108ES

Course Outcomes:	
1	Verify the basic Electrical circuits through different experiments.
2	Evaluate the performance calculations of Electrical Machines and Transformer 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.

COURSE NAME: Mathematics – II **COURSE CODE:** MA201BS

Course Outcomes:	
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 rectangular parallelepiped.
5	Calculate the line, surface and volume integrals and converting them from one to another.

COURSE NAME: Applied Physics

COURSE CODE: AP202BS

Course Outcomes:	
1	Understand physical world from fundamental point of view by the concepts of Quantum mechanics and visualize the difference between conductor, semiconductor, and an insulator by classification of solids.



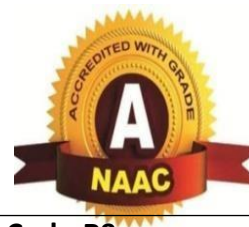
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2	Identify the role of semiconductor devices in science and engineering Applications.
3	Explore the fundamental properties of dielectric, magnetic materials and energy for their applications.
4	Appreciate the features and applications of Nanomaterials.
5	Understand various aspects of Lasers and Optical fiber and their applications in diverse fields.

COURSE NAME: Programming for Problem Solving

COURSE CODE: CS203ES

Course Outcomes:

1	Build the algorithm for the given unsolved problems.
2	Apply the concepts of Arrays, Pointers, Strings and structures to find the solution for 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 complexity analysis

COURSE NAME: Engineering Graphics

COURSE CODE: ME204ES

Course Outcomes:

1	Apply the principles of Engineering Graphics to create Engineering Drawings of various geometric constructions, conic sections, curves and scales as per BIS standards.
2	Construct orthographic projections for points, lines and planes in different quadrants and Auxiliary views.
3	Draw the sectional views and true shape of sections of solids, by applying principles of projections.
4	Draw the development of surfaces and intersections of solids in real time situations.
5	Develop isometric and orthographic views of the objects.

COURSE NAME: Applied Physics Lab

COURSE CODE: AP205BS

Course Outcomes:

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 Hall coefficient.
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.

COURSE NAME: Programming for Problem Solving Lab

COURSE CODE: CS206ES

Course Outcomes:



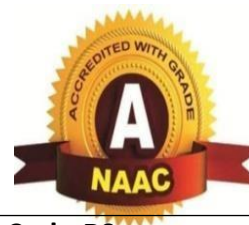
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1	Formulate The Algorithms for Simple Problems
2	Translate the given algorithms to C program.
3	Correct the logical errors found during program execution
4	Make use of pointers in different types to modularize the code with functions.
5	Apply the appropriate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

COURSENAME:Environmental Studies

COURSECODE:*MC209ES

Course Outcomes:

1	The students able to know basic concept of ecological perspective and the value of the environment.
2	The students able to understand the significance of various natural resources and its management.
3	The students able to demonstrate a comprehensive understanding of the world's biodiversity 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 with best possible solutions.
5	The students able to raise awareness about environmental laws and sustainable development.

5	equivalent parameters of two port network and resonance frequency of RLC circuit.
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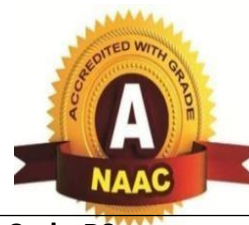
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COURSE NAME: Analog electronics

COURSE CODE: EE303PC

Course Outcomes:

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 applications

COURSE NAME: Electrical circuit analysis

COURSE CODE: EE302PC

Course Outcomes:

1	Apply network theorems for the analysis 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 AC excitations.
4	Analyze circuits in the sinusoidal steady-state (single-phase and three-phase)..
5	To test the polynomial transformers for star and delta connections .

COURSE NAME: Electrical machines -1

COURSE CODE: EE304PC

Course Outcomes:

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 transformer circuits.
4	Construct the single phase and three phase transformer circuits.
5	Discover the exceptions handling process in object-oriented programming.

COURSE NAME: Electromagnetic fields

COURSE CODE: EE305PC

Course Outcomes:

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..



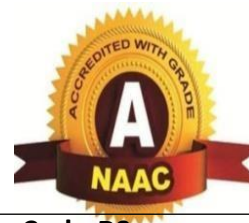
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COURSENAME: Engineering mechanics

COURSECODE: EE301ES

Course Outcomes:

1	Solve problems related to resultant of forces acting on a body and equilibrium of a body subjected to a system of forces.
2	Solve problem of bodies' subject to friction 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 and kinetics of rigid body rotation..

COURSENAME: Electrical circuits lab

COURSECODE: EE308PC

Course Outcomes:

1	Analyze complex DC and AC linear circuits
2	Apply concepts of electrical circuits across engineering
3	Evaluate response in a given network using 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

Course Outcomes:

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

Course Outcomes:

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 into different components
5	Identify various parts of electrical DC machines.

COURSENAME: Professional And Engineering and Ethics

COURSECODE: MC3HS01

Course Outcomes:



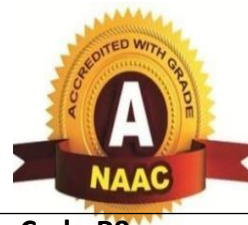
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1	To gain the knowledge on different codes of ethics, such as personal & professional, accountability, controllability, governability, life skills and consequentialism.
2	To perceive moral values in different fields in different ways.
3	To follow value-based education system by learning different techniques.
4	To assess workplace responsibilities by following different case studies.
5	To realize the workplace responsibilities, honesty, integrity, and promise-keeping & trustworthiness, loyalty, fairness.

COURSE NAME: Quantitative Aptitude

COURSE CODE: MC3BS02

Course Outcomes:	
1	To Understand and Practice Simplifications.
2	To Understand and Practice the Problems on Ages.
3	To Understand and Practice the Quadratic Equations.
4	To Understand and Practice arrangement and selection in their daily life.
5	To Understand and Practice commercial mathematics.

COURSE NAME: Power Electronics

COURSE CODE: EE501PE

Course Outcomes:	
1	Explain the operation of various power semiconductor devices its characteristics and commutation 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..

COURSE NAME: Digital electronics

COURSE CODE: EE403PC

Course Outcomes:	
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

COURSE NAME: Electrical machines -II

COURSE CODE: EE407PC

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



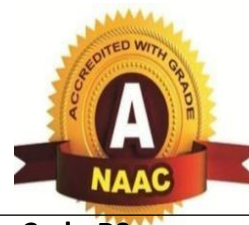
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3	Explain the Construction, Principle of operation, Characteristics & Regulation of Synchronous Generator.
4	Analyze the operation of synchronous motors and its salient features..
5	Analyze the principle of operation of single-phase motors and special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

COURSENAME: Numerical Methods & Complex Variables

COURSECODE: MA401BS

Course Outcomes:	
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's integral 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

Course Outcomes:	
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

Course Outcomes:	
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

Course Outcomes:	
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:Gender Sensitization Lab

COURSECODE:MC4HS03

CourseOutcomes:	
1	Students will have developed a better understanding of important issues related to gender in contemporary India.
2	Students will be sensitized to basic dimensions of the biological, sociological, psychological and legal aspects of gender. This will be achieved through discussion of materials derived from research, facts, everyday life, literature and film.
3	Students will attain a finer grasp of how gender discrimination works in our society and how to counter it. Students will acquire insight into the gendered division of labour and its relation to politics and economics.
4	Men and women students and professionals will be better equipped to work and live together as equals. Students will develop a sense of appreciation of women in all walks of life.
5	Through providing accounts of studies and movements as well as the new laws that provide protection and relief to women, the textbook will empower students to understand and respond to gender violence.

COURSENAME:Quantitative Logical and Reasoning

COURSECODE:MC4BS03

CourseOutcomes:	
1	Students will have developed a better understanding of important issues related to gender in contemporary India.
2	Students will be sensitized to basic dimensions of the biological, sociological, psychological and legal aspects of gender. This will be achieved through discussion of materials derived from research, facts, everyday life, literature and film.



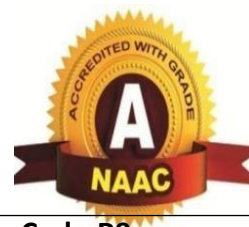
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3	Students will attain a finer grasp of how gender discrimination works in our society and how to counter it. Students will acquire insight into the gendered division of labour and its relation to politics and economics.
4	Men and women students and professionals will be better equipped to work and live together as equals. Students will develop a sense of appreciation of women in all walks of life.
5	Through providing accounts of studies and movements as well as the new laws that provide protection and relief to women, the textbook will empower students to understand and respond to gender violence.

COURSE NAME: Power Electronics

COURSE CODE: EE501PE

Course Outcomes:	
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

COURSE NAME: Power system II

COURSE CODE: EE502PE

Course Outcomes:	
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.

COURSE NAME: Measurements and Instrumentation

COURSE CODE: EE503PE

Course Outcomes:	
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.



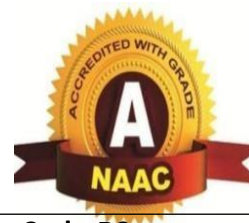
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COURSENAME: Business Economics and financial analysis

COURSECODE: SM504MS

Course Outcomes:

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-Even Analysis.
3	Gain knowledge of different market structures, pricing strategies and different forms business organization.
4	Study and analyze the principles of accounting to record, classify and summarize various transactions in books of accounts for preparation of final accounts.
5	Learn Fundamental accounting concepts and Ratio analysis

COURSENAME: Advanced communication skills lab

COURSECODE: EN508HS

Course Outcomes:

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 and Instruments lab

COURSECODE: EE507PC

Course Outcomes:

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 Electronics Lab

COURSECODE: EE506PC

Course Outcomes:

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



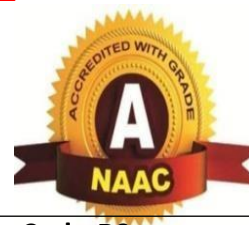
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5	Perform experiment to calibrate the instruments.
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COURSENAME:Power system simulation lab

COURSECODE:EE505PC

Course Outcomes:	
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

Course Outcomes:	
1	The course is designed to provide comprehensive knowledge to the students regarding Indian position of the Patent Law and importance of IPR
2	Trademarks and designs with respect to products prevent entry into the market and ensure that consumers can rely on the quality and safety of genuine products
3	To help the student to learn and understand the reason for pursuing the course and help to identify what he will be able to do at the end of the course.
4	Trade secrets are secret practices and processes that give a company a competitive advantage over its competitors.
5	The primary function of intellectual property rights (IPRs) is to protect and stimulate the development and distribution of new products and the provision of new services based on the creation and exploitation of inventions, trademarks, designs, creative content or other intangible assets.

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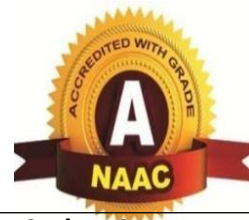


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College Code: R9

COURSE : NAME Power system operation and control

COURSE CODE: EE604PC

Course Outcomes:	
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.

COURSE NAME: Microprocessor and Microcontrollers

COURSE CODE: EE602PC

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

COURSE NAME: Power system protection

COURSE CODE: EE603PC

Course Outcomes:	
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	Identify appropriate method for code generation.
5	Analyze quenching mechanisms used in air, oil and vacuum circuit breakers

COURSE NAME

COURSE CODE: EE601PC

Course Outcomes: Signals and Systems	
1	Differentiate various signal functions.
2	Represent any arbitrary signal in time and frequency domain.
3	Understand the characteristics of linear time invariant systems
4	Analyze the signals with different transform technique
5	The ability to find correlation, CDF, PDF and probability of a given event.



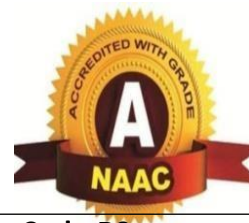
TEEGALAKRISHNAREDDYENGINEERINGCOLLEGE

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College Code: R9

COURSENAME: Microprocessor and Microcontrollers lab

COURSECODE: 20EE6PC05

Course Outcomes:	
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 instructions using 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

Course Outcomes:	
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: Signals and Systems Lab

COURSECODE: EE607PC

Course Outcomes:	
1	Understand the concepts of continuous time and discrete time systems
2	Analyze systems in complex frequency domain
3	Understand sampling theorem and its implications
4	Design and analyze linear time-invariant (LTI) systems and compute its response
5	Analyze the spectral characteristics of signals using Fourier analysis

COURSENAME: Environmental Science

COURSECODE: *MC609

Course Outcomes:	
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



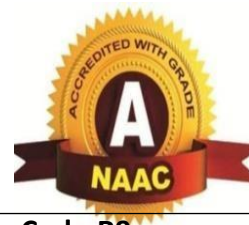
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College Code: R9

Course Outcomes: Power Semiconductor Drives COURSE CODE: 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

COURSE NAME: Utilization of electric power

COURSE CODE: EE863PE

Course Outcomes:

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

COURSE NAME: Power System Operation and Control

COURSE CODE: EE604PC

Course Outcomes:

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

COURSE NAME: Electrical distribution systems

COURSE CODE: EE743PE

Course Outcomes:

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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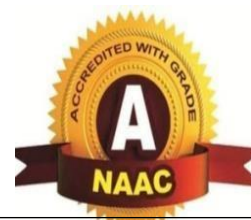


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College Code: R9

COURSE NAME: Digital signal processing **COURSE CODE:** EE721PE

Course Outcomes:	
1	Interpret, represent and process discrete/digital signals and systems
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

COURSE NAME: Industry Oriented Mini Project/Summer Internship **COURSE CODE:** EE702PC

Course Outcomes:	
1	analyze the problem formulation and solution of these selected projects.
2	Develop solutions for problems using modern tools for sustainable development.
3	Demonstrate ethical and professional sustainability while working in a team and communicate effectively for the benefit of the society.
4	Understand the engineering, finance and management principles.
5	Develop an electrical application or solution to a complex engineering problem using modern tools

COURSE NAME: Seminar

COURSE CODE: EE703PC

Course Outcomes:	
1	Identify recent technical topics from interested domains.
2	analyze the applicability of modern electrical tools and technology.
3	Develop Presentation and Communication skills.
4	Develop Technical report preparation skills.

COURSE NAME: Project Stage-I

COURSE CODE: EE704PC

Course Outcomes:	
1	analyze the problem formulation and solution of these selected projects.
2	Develop solutions for problems using modern tools for sustainable development.
3	Demonstrate ethical and professional sustainability while working in a team and communicate effectively for the benefit of the society.
4	Understand the engineering, finance and management principles.

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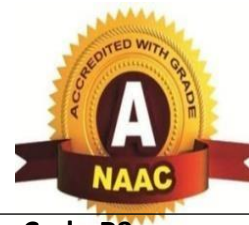


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College Code: R9

COURSENAME: Renewable energy sources

COURSECODE: MT831OE

Course Outcomes:	
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: Electrical Distribution Systems

COURSECODE: EE822PE

Course Outcomes:	
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

Course Outcomes:	
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: Project Stage-II

COURSECODE: EE801PC

Course Outcomes:	
1	analyze the problem formulation and solution of the selected project.
2	Develop solutions for problems using modern tools for sustainable development.
3	Demonstrate ethical and professional sustainability while working in a team and communicate effectively for the benefit of the society.
4	Understand the engineering, finance and management principles.