



MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE

363, Arcot Road, Kodambakkam, Chennai – 24
Approved by AICTE & Affiliated to Anna University
email Id: principal@msec.edu.in
Website : www.msec.edu.in

DEPARTMENT OF HUMANITIES AND SCIENCE (B.E. CIVIL ENGINEERING)

REGULATION – 2013 COURSE OUTCOMES (CO)

HS6151-Technical English-I - [C101]

C101.1	Speak clearly, confidently, comprehensibly, and communicate with one or many listeners using appropriate communicative strategies.
C101.2	Write cohesively and coherently and flawlessly avoiding grammatical errors, using a wide vocabulary range, organizing their ideas logically on a topics.
C101.3	Read different genres of texts adopting various reading strategies
C101.4	Listen/view and comprehend different spoken discourses/excerpts in different accents.
C101.5	Ability to speak/write elaborately on the ideas and opinions relevant in different situations.


MA6151-Mathematics-I [C102]

C102.1	To find eigenvalues, eigenvectors, canonical form and inverse of a matrix.
C102.2	Acquire the knowledge of infinite and finite series and their convergence.
C102.3	Evaluate radius of curvature, evolute and envelope of given curves using differential calculus.
C102.4	Examine the concepts of functions of several variables and to find extremum value of a given function.
C102.5	Develop an ability to trace the curve and find area , volume using multiple integrals.

PH6151-Engineering Physics-I [C103]

C103.1	Basics of crystals and their properties and applications in fields of engineering.
C103.2	Basics of physics related to properties of matter, and they will apply these fundamental principles to solve practical problems related to materials used for engineering applications.
C103.3	Concept of sound production and application in the field of construction
C103.4	Dual nature of matter and its applications
C103.5	Production of laser and optical fibres. Their uses in communications.


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DEPARTMENT OF HUMANITIES AND SCIENCE (B.E. CIVIL ENGINEERING)

CY6151 -Engineering Chemistry – I (C104)

C104.1	Understand the Principles of polymer chemistry and engineering applications of polymers.
C104.2	Understand the basic concepts of , thermodynamics and their importance.
C104.3	Know the basic concepts of Analytical techniques and their importance.
C104.4	Understand knowledge in Industrial importance of Phase rule and alloys.
C104.5	Know the concept of nanomaterials and its applications

GE6151-Computer Programming-[C105]

C105.1	Explain the basic organization of computers, the number systems and write the pseudo code for algorithms and flow chart.
C105.2	Develop C programming fundamentals, looping statements and solve problems
C105.3	Develop C programs for arrays and strings
C105.4	Use functions with pass by value and reference, pointers in programs
C105.5	Develop codings in C for structures and unions with storage classes and preprocessor

GE6152- Engineering Graphics [C106]

C106.1	Familiarize with the fundamentals and standards of Engineering drawings and Perform freehand sketching of basic geometrical constructions and multiple views of objects.
C106.2	Draw orthographic projections of lines and plane surfaces.
C106.3	Draw projections of solids
C106.4	Draw projection of sectioned solids and development of surfaces.
C106.5	Visualize and project isometric and perspective sections of simple solids.

GE6161 – Computer Practices Laboratory – (C107)

C107.1	Develop C programs for simple applications making use of basic constructs, arrays function, recursion, pointers, structures and strings
C107.2	Design applications using sequential and random access file processing
C107.3	Develop C programs involving structures union.

GE6162 – Engineering Practices Laboratory – (C108)

C108.1	Study and practice on machine tools and their operations
C108.2	Practice on carpentry tools, components and pipe connections including plumbing work
C108.3	Demonstrate wiring for a simple residential house, identify the ratings of


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	various appliances like Fluorescent tube, incandescent lamp, etc.
C108.4	Calculate the different Electrical quantities, measure the energy consumption using single phase energy meter, measure the resistance to earth of an electrical equipment.
C108.5	Analyze the characteristics of basic electronic devices
C108.6	Elaborate on the components, gates, soldering practices

GE6163 - Physics and Chemistry Laboratory – I (C109)

C109.1	The hands on exercises undergone by the students will help them to apply physics principles of optics.
C109.2	Gain knowledge about thermal physics to evaluate engineering properties of materials.
C109.3	Outfitted with hands-on knowledge in the quantitative chemical analysis of polymer and acid based related parameters.
C109.4	Basic idea about pH and conductometric titration.

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PH6251 – Engineering Physics–II – [C112]

C112.1	Conducting materials using wave mechanics.
C112.2	Semiconducting materials and their application in engineering field.
C112.3	Properties of magnetic and superconducting materials.
C112.4	Significance of dielectric and its application in the field of engineering.
C112.5	Upcoming new engineering materials and their applications in engineering fields.

CY6251 – Engineering Chemistry –II – [C113]

C113.1	Understand water treatment techniques will facilitate better understanding of engineering processes and applications for further learning.
C113.2	Gain knowledge about with the principles electrochemistry, electrochemical cells, emf and applications of emf measurements.
C113.3	Gain basic knowledge in Principles of corrosion control.
C113.4	Understand fundamental concepts of Fuels and combustion
C113.5	Acquire knowledge in various energy sources and its applications.

GE6262- Basic Electrical and Electronics Engineering- [C114]

C114.1	Able to understand the basic theorems used in electrical circuits and the different componenets.
C114.2	Able to understand the principle of operation, construction and working function of electrical machines.
C114.3	Ability to understand electronics componenets operation, characteristics and its applications.
C114.4	Able to understand the design, principles of digital electronics circuits.
C114.5	Able to impart the knowledge of various communication systems.

GE6253 - Engineering Mechanics - [C115]

C115.1	Enumerate the basic concepts of particle mechanics and solve problems
C115.2	Enumerate the basic of concepts of rigid body under static equilibrium and solve problems
C115.3	Determine the centroid of a line, areas, and volumes, center of mass of body and moment of inertia of composite areas
C115.4	Solve problems involving kinematics and kinetics of particles
C115.5	Solve problems involving kinetics of rigid bodies with and without friction


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GE6261 – Computer Aided Drafting and Modeling Laboratory-[C116]

At the end of the course, the student will be able to

C116.1	Ability to design various structures using AutoCAD
C116.2	Ability to draw the detailing of the structures using various commands
C116.3	The students get knowledge about the different types of roof finishes
C116.4	The students get knowledge about the 3D modeling of the structures.
C116.5	Ability to get knowledge about the drafting of the structures in a easy way.

GE6262 - Physics and Chemistry Laboratory – II-[C117]

C117.1	Ability to test materials by using their knowledge of applied physics principles in optics and properties of matter..
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C117.3	Conversant with hands-on knowledge in the quantitative chemical analysis of water quality related parameters
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C113.4	Understand fundamental concepts of Fuels and combustion
C113.5	Acquire knowledge in various energy sources and its applications.

CS6201-Digital Principles And System Design [C114]

C114.1	To understand different methods used for the simplification of Boolean functions
C114.2	To understand and design a system that uses combinational logic for the given specification. Simulate combinational logic systems using verilog or VHDL


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C114.3	To understand and design synchronous sequential system for the given specification. Simulate sequential logic systems using verilog or VHDL
C114.4	To design and implement Asynchronous sequential system for the given specification
C114.5	To design and implement memory accessing systems and systems using PLA, PAL

CS6202 –Programming and Data Structures –I [C115]

C115.1	Develop Programs using functions and Pointers
C115.2	Explain the File handling concept in C language.
C115.3	Discuss about the various Linear Data Structure Operations and applications using ADT.
C115.4	Explain the various algorithms for sorting and searching
C115.5	Demonstrate the indexing techniques in data structures.

GE6262 - Physics & Chemistry laboratory-II [C116]

C116.1	Ability to test materials by using their knowledge of applied physics principles in optics and properties of matter..
C116.2	Assess the behaviour of columns, beams and failures of materials
C116.3	Conversant with hands-on knowledge in the quantitative chemical analysis of water quality related parameters
C116.4	Gain good knowledge about corrosion measurement

CS 6211 Digital Laboratory [C117]

C117.1	Analyse the characteristics of logic gates
C117.2	Elaborate on the components , gates, code converters.
C117.3	Analyse,design and implement sequential logic circuits


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CS6212– Programming and Data Structures Laboratory I – [C118]

C118.1	Develop simple C Programs using pointers and Functions
C118.2	Develop C program for Linear data structure operations and File Manipulation concepts.
C118.3	Develop programs using various sorting algorithms and searching methods.


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C114.2	Understand the basic operation of BJT amplifiers and their voltage and current characteristics
C114.3	Understand the basic operation of different types of FET amplifiers and their voltage and current characteristics
C114.4	Understand the basic operation of special semiconductor devices, their characteristics and applications.
C114.5	Understand the basic principles of power devices and display devices, their characteristics and applications.

EE6201 – Circuit Theory [C115]

C115.1	Apply basic Kirchoff laws to solve the various electrical parameters using mesh and nodal analysis.
C115.2	Understand and apply various network theorems to solve the various electrical parameters for a given circuit.
C115.3	Understand the concept of resonance inductance and coupled circuits.
C115.4	Analyse the time response of circuits with passive components using Laplace transformation.
C115.5	Understand the concepts in three phase system in star and delta configuration.

GE6262 – Physics & Chemistry Laboratory - II [C116]

C116.1	Ability to test materials by using their knowledge of applied physics principles in optics and properties of matter.
C116.2	Assess the behaviour of columns, beams and failures of materials.
C116.3	Conversant with hands-on knowledge in the quantitative chemical analysis of water quality related parameters.
C116.4	Gain good knowledge about corrosion measurement.

EC6211 – Circuits and Devices Laboratory [C117]

C117.1	Analyze the characteristics of basic electronic devices
C117.2	Design RL and RC circuits.
C117.3	Verify Thevenin & Norton theorem KVL & KCL, and Super Position Theorems.


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**DEPARTMENT OF HUMANITIES AND SCIENCE
(B.E. ELECTRICAL AND ELECTRONICS ENGINEERING)**

REGULATION – 2013

COURSE OUTCOMES (CO)

HS6151-Technical English-I - [C101]

C101.1	Speak clearly, confidently, comprehensibly, and communicate with one or many listeners using appropriate communicative strategies.
C101.2	Write cohesively and coherently and flawlessly avoiding grammatical errors, using a wide vocabulary range, organizing their ideas logically on a topics.
C101.3	Read different genres of texts adopting various reading strategies
C101.4	Listen/view and comprehend different spoken discourses/excerpts in different accents.
C101.5	Ability to speak/write elaborately on the ideas and opinions relevant in different situations.

MA6151-Mathematics-I [C102]

C102.1	To find eigenvalues,eigenvectors,canonical form and inverse of a matrix.
C102.2	Acquire the knowledge of infinite and finite series and their convergence.
C102.3	Evaluate radius of curvature, evolute and envelope of given curves using differential calculus.
C102.4	Examine the concepts of functions of several variables and to find extremum value of a given function.
C102.5	Develop an ability to trace the curve and find area , volume using multiple integrals.


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DEPARTMENT OF HUMANITIES AND SCIENCE (B.E. ELECTRICAL AND ELECTRONICS ENGINEERING)

PH6151-Engineering Physics-I [C103]

C103.1	Basics of crystals and their properties and applications in fields of engineering.
C103.2	Basics of physics related to properties of matter, and they will apply these fundamental principles to solve practical problems related to materials used for engineering applications.
C103.3	Concept of sound production and application in the field of construction
C103.4	Dual nature of matter and its applications
C103.5	Production of laser and optical fibres. Their uses in communications.

CY6151 -Engineering Chemistry – I (C104)

C104.1	Understand the Principles of polymer chemistry and engineering applications of polymers.
C104.2	Understand the basic concepts of , thermodynamics and their importance.
C104.3	Know the basic concepts of Analytical techniques and their importance.
C104.4	Understand knowledge in Industrial importance of Phase rule and alloys.
C104.5	Know the concept of nanomaterials and its applications

GE6151-Computer Programming-[C105]

C105.1	Explain the basic organization of computers, the number systems and write the pseudo code for algorithms and flow chart.
C105.2	Develop C programming fundamentals, looping statements and solve problems
C105.3	Develop C programs for arrays and strings
C105.4	Use functions with pass by value and reference, pointers in programs
C105.5	Develop codings in C for structures and unions with storage classes and preprocessor

GE6152- Engineering Graphics [C106]

C106.1	Familiarize with the fundamentals and standards of Engineering drawings and Perform freehand sketching of basic geometrical constructions and multiple views of objects.
C106.2	Draw orthographic projections of lines and plane surfaces.
C106.3	Draw projections of solids
C106.4	Draw projection of sectioned solids and development of surfaces.
C106.5	Visualize and project isometric and perspective sections of simple solids.


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GE6161 – Computer Practices Laboratory – (C107)

C107.1	Develop C programs for simple applications making use of basic constructs, arrays function, recursion, pointers, structures and strings
C107.2	Design applications using sequential and random access file processing
C107.3	Develop C programs involving structures union.

GE6162 – Engineering Practices Laboratory – (C108)

C108.1	Study and practice on machine tools and their operations
C108.2	Practice on carpentry tools, components and pipe connections including plumbing work
C108.3	Demonstrate wiring for a simple residential house, identify the ratings of various appliances like Fluorescent tube, incandescent lamp, etc.
C108.4	Calculate the different Electrical quantities, measure the energy consumption using single phase energy meter, measure the resistance to earth of an electrical equipment.
C108.5	Analyze the characteristics of basic electronic devices
C108.6	Elaborate on the components, gates, soldering practices

GE6163 - Physics and Chemistry Laboratory – I (C109)

C109.1	The hands on exercises undergone by the students will help them to apply physics principles of optics.
C109.2	Gain knowledge about thermal physics to evaluate engineering properties of materials.
C109.3	Outfitted with hands-on knowledge in the quantitative chemical analysis of polymer and acid based related parameters.
C109.4	Basic idea about pH and conductometric titration.


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HS6251-Technical English-II [C110]

C110.1	Speak convincingly, express their opinions clearly, initiate a discussion, negotiate, argue using appropriate communicative.
C110.2	Write effectively and persuasively and produce different types of writing such as narration, description, exposition and argument as well as creative, critical, analytical and evaluative writing.
C110.3	Read different genres of texts, infer implied meanings and critically analyse and evaluate them for ideas as well as for method of presentation.
C110.4	Listen/view and comprehend different spoken excerpts critically and infer unspoken and implied meanings.
C110.5	Ability to speak/write elaborately on the ideas and opinions relevant in different situations.

MA6251-Mathematics-II - [C111]

C111.1	Estimate vector identities and interpret some integral theorems in a vector field.
C111.2	Develop an ability to solve ordinary differential equations.
C111.3	Examine the concepts of Laplace transformation and solve differential equations with given boundary conditions..
C111.4	Identify and construct analytic function and application of conformal mapping.
C111.5	Apply complex integration to evaluate contour integrals.

PH6251 – Engineering Physics–II – [C112]

C112.1	Conducting materials using wave mechanics.
C112.2	Semiconducting materials and their application in engineering field.
C112.3	Properties of magnetic and superconducting materials.
C112.4	Significance of dielectric and its application in the field of engineering.
C112.5	Upcoming new engineering materials and their applications in engineering fields.


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CY6251 – Engineering Chemistry –II – [C113]

C113.1	Understand water treatment techniques will facilitate better understanding of engineering processes and applications for further learning.
C113.2	Gain knowledge about with the principles electrochemistry, electrochemical cells, emf and applications of emf measurements.
C113.3	Gain basic knowledge in Principles of corrosion control.
C113.4	Understand fundamental concepts of Fuels and combustion
C113.5	Acquire knowledge in various energy sources and its applications.

GE6251-Basic civil and Mechanical-[C114]

C114.1	Appreciate the Civil and Mechanical Engineering components of Projects.
C114.2	Explain the usage of construction material and proper selection of construction materials.
C114.3	Measure distances and area by surveying.
C114.4	Identify the components used in power plant cycle. Demonstrate working principles of petrol and diesel engine.
C114.5	Elaborate the components of refrigeration and Air conditioning cycle..


EE6201-Circuit Theory –[C115]

C115.1	Apply basic kirchoffs laws to solve the various electrical parameters using mesh and nodal analysis.
C115.2	Understand and apply various network theorems to solve the various electrical parametrs for a given circuit..
C115.3	Understand the concept of resonance inductance and coupled circuits.
C115.4	Analyse the time response of circuits with passive components using laplace transformation.
C115.5	Understand the concepts in three phase system in star and delta configuration

GE6262 - Physics and Chemistry Laboratory – II-[C116]

C116.1	Ability to test materials by using their knowledge of applied physics principles in optics and properties of matter..
C116.2	Assess the behaviour of columns, beams and failures of materials
C116.3	Conversant with hands-on knowledge in the quantitative chemical analysis of water quality related parameters
C116.4	Gain good knowledge about corrosion measurement


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GE6263-Computer programming Laboratory-[C117]

C117.1	Use shell commands.
C117.2	Design of implement unix shell scripts
C117.3	Write and execute C programs and Unix

EE6211-Electrical Circuit Laboratory--[C118]

C118.1	Apply KCL,KVL and network theorms to simple and complex circuits.
C118.2	Demonstrate the working of CRO and determine the time constant of RC circuit.
C118.3	Determine frequency response of RLC circuits and use MATLAB to simulate series,parallel resonant circuit, low pass,high pass filter.
C118.4	Use MATLAB to simulate three phase balanced,unbalanced circuit and measure power in three phase circuit by two watt meter methods.
C118.5	Determine h,parameters of two port networks and calibrate single phase energy meter.


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COURSE OUTCOMES(CO)

HS6151-Technical English -I [C101]

C101.1	Speak clearly, confidently, comprehensibly, and communicate with one or many listeners using appropriate communicative strategies
C101.2	Write cohesively and coherently and flawlessly avoiding grammatical errors, using a wide vocabulary range, organizing their ideas logically on a topics.
C101.3	Read different genres of texts adopting various reading strategies
C101.4	Listen/view and comprehend different spoken discourses/excerpts in different accents
C101.5	Ability to speak/write elaborately on the ideas and opinions relevant in different situations.

MA6151-Mathematics - I [C102]

C102.1	To Find eigenvalues, eigenvectors, canonical form and inverse of a matrix.
C102.2	Acquire the knowledge of infinite and finite series and their convergence.
C102.3	Evaluate radius of curvature, evaluate and envelope of given curves using differential calculus.
C102.4	Examine the concepts of functions of several variables and to find extremum value of a given function.
C102.5	Develop an ability to trace the curve and find area , volume using multiple integrals

PH6151-Engineering Physics - I [C103]

C103.1	Basics of crystals and their properties and applications in fields of engineering.
C103.2	Basics of physics related to properties of matter, and they will apply these fundamental principles to solve practical problems related to materials used for engineering applications
C103.3	Concept of sound production and application in the field of construction
C103.4	Dual nature of matter and its applications
C103.5	Production of laser and optical fibres. Their uses in communications.


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CY6151-Engineering Chemistry - I [C104]

C104.1	Understand the Principles of polymer chemistry and engineering applications of polymers
C104.2	Understand the basic concepts of , thermodynamics and their importance
C104.3	Know the basic concepts of Analytical techniques and their importance
C104.4	Understand knowledge in Industrial importance of Phase rule and alloys.
C104.5	Know the concept of nanomaterials and its applications.

GE6151-Computer Programming [C105]

C105.1	Explain the basic organization of computers, the number systems and write the pseudo code for algorithms and flow chart.
C105.2	Develop C programming fundamentals, looping statements and solve problems
C105.3	Develop C programs for arrays and strings
C105.4	Use functions with pass by value and reference, pointers in programs
C105.5	Develop coding in C for structures and unions with storage classes and pre-processor

GE6152-Engineering Graphics [C106]

C106.1	Familiarize with the fundamentals and standards of Engineering drawings and Perform freehand sketching of basic geometrical constructions and multiple views of objects.
C106.2	Draw orthographic projections of lines and plane surfaces.
C106.3	Draw projections of solids
C106.4	Draw projection of sectioned solids and development of surfaces.
C106.5	Visualize and project isometric and perspective sections of simple solids.

GE6161-Computer Practices Laboratory [C107]

C107.1	Develop C programs for simple applications making use of basic constructs, arrays function, recursion, pointers, structures and strings
C107.2	Design applications using sequential and random access file processing
C107.3	Develop C programs involving structures and union.


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**DEPARTMENT OF HUMANITIES AND SCIENCE
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GE6162-Engineering Practices Laboratory [C108]

C108.1	Study and practice on machine tools and their operations
C108.2	Practice on carpentry tools, components and pipe connections including plumbing work
C108.3	Demonstrate wiring for a simple residential house, identify the ratings of various appliances like Fluorescent tube, incandescent lamp, etc.
C108.4	Calculate the different Electrical quantities, measure the energy consumption using single phase energy meter, measure the resistance to earth of an electrical equipment.
C108.5	Analyse the characteristics of basic electronic devices
C108.6	Elaborate on the components, gates, soldering practices

GE6163-Physics and Chemistry Laboratory – I [C109]

C109.1	The hands on exercises undergone by the students will help them to apply physics principles of optics
C109.2	Students will gain knowledge about thermal physics to evaluate engineering properties of materials
C109.3	The students will be outfitted with hands-on knowledge in the quantitative chemical analysis of polymer and acid based related parameters.
C109.4	Students have basic idea about pH and conduct metric titration.

HS6251-Technical English-II [C110]

C110.1	Speak convincingly, express their opinions clearly, initiate a discussion, negotiate, argue using appropriate communicative.
C110.2	Write effectively and persuasively and produce different types of writing such as narration, description, exposition and argument as well as creative, critical, analytical and evaluative writing.
C110.3	Read different genres of texts, infer implied meanings and critically analyse and evaluate them for ideas as well as for method of presentation.
C110.4	Listen/view and comprehend different spoken excerpts critically and infer unspoken and implied meanings.
C110.5	Ability to speak/write elaborately on the ideas and opinions relevant in different situations.

MA6251-Mathematics – II [C111]

C111.1	Estimate vector identities and interpret some integral theorems in a vector field.
C111.2	Develop an ability to solve ordinary differential equations.
C111.3	Examine the concepts of Laplace transformation and solve differential equations with given boundary conditions.
C111.4	Identify and construct analytic function and application of conformal mapping.
C111.5	Apply complex integration to evaluate contour integrals.

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**DEPARTMENT OF HUMANITIES AND SCIENCE
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PH6251-Engineering Physics – II [C112]

C112.1	conducting materials using wave mechanics
C112.2	semiconducting materials and their application in engineering field.
C112.3	properties of magnetic and superconducting materials.
C112.4	significance of dielectric and its application in the field of engineering.
C112.5	upcoming new engineering materials and their applications in engineering fields.

CY6251-Engineering Chemistry – II [C113]

At the end of the course, the student will be able to

C113.1	Understand water treatment techniques will facilitate better understanding of engineering processes and applications for further learning
C113.2	Gain knowledge about with the principles electrochemistry, electrochemical cells, emf and applications of emf measurements.
C113.3	Gain basic knowledge in Principles of corrosion control.
C113.4	Understand fundamental concepts of Fuels and combustion.
C113.5	Acquire knowledge in various energy sources and its applications

CS6201-Digital Principles and System Design [C114]

C114.1	To understand different methods used for the simplification of Boolean functions
C114.2	To understand and design a system that uses combinational logic for the given specification. Simulate combinational logic systems using Verilog or VHDL
C114.3	To understand and design synchronous sequential system for the given specification. Simulate sequential logic systems using Verilog or VHDL.
C114.4	To design and implement Asynchronous sequential system for the given specification.
C114.5	To design and implement memory accessing systems and systems using PLA, PAL.

CS6202-Programming and Data Structures - I [C115]

C115.1	Develop Programs using functions and Pointers
C115.2	Explain the File handling concept in C language.
C115.3	Discuss about the various Linear Data Structure Operations and applications using ADT.
C115.4	Explain the various algorithms for sorting and searching.
C115.5	Demonstrate the indexing techniques in data structures.

GE6262-Physics & Chemistry Laboratory - II [C116]

C116.1	Test materials by using their knowledge of applied physics principles in optics and properties of matter.
C116.2	Assess the behaviour of columns, beams and failures of materials.


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C116.3	Conversant with hands-on knowledge in the quantitative chemical analysis of water quality related parameters.
C116.4	Gain good knowledge about corrosion measurement

IT6211-Digital Laboratory [C117]

C117.1	Analyse the characteristics of logic gates
C117.2	Elaborate on the components , gates, code converters.
C117.3	Analyse, design and implement sequential logic circuits

IT6212-Programming and Data Structures Laboratory - I [C118]

C118.1	Develop simple C Programs using pointers and Functions
C118.2	Develop C program for Linear data structure operations and File Manipulation concepts
C118.3	Develop programs using various sorting algorithms and searching methods.


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DEPARTMENT OF HUMANITIES AND SCIENCE
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REGULATION – 2013

COURSE OUTCOMES

HS6151- Technical English I [C101]

C101.1	Speak clearly, confidently, comprehensibly, and communicate with one or many listeners using appropriate communicative strategies.
C101.2	Write cohesively and coherently and flawlessly avoiding grammatical errors, using a wide vocabulary range, organizing their ideas logically on a topics.
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MA6151- Mathematics – I [C102]

C102.1	To find eigen values, eigenvectors, canonical form and inverse of a matrix.
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C102.4	Examine the concepts of functions of several variables and to find extremum value of a given function.
C102.5	Develop an ability to trace the curve and find area , volume using multiple integrals.

PH6151- Engineering Physics - I [C103]

C103.1	Basics of crystals and their properties and applications in fields of engineering.
C103.2	Basics of physics related to properties of matter, and they will apply these fundamental principles to solve practical problems related to materials used for engineering applications.
C103.3	Concept of sound production and application in the field of construction
C103.4	Dual nature of matter and its applications
C103.5	Production of laser and optical fibres. Their uses in communications.


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C104.3	Know the basic concepts of Analytical techniques and their importance.
C104.4	Understanding knowledge in Industrial importance of Phase rule and alloys.
C104.5	Know the concept of nanomaterials and its applications.

GE6151- Computer Programming [C105]

C105.1	Explain the basic organization of computers, the number systems and write the pseudo code for algorithms and flow chart.
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C105.3	Develop C programs for arrays and strings.
C105.4	Use functions with pass by value and reference, pointers in programs.
C105.5	Develop coding's in C for structures and unions with storage classes and pre-processor.

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C106.1	Familiarize with the fundamentals and standards of Engineering drawings and Perform freehand sketching of basic geometrical constructions and multiple views of objects.
C106.2	Draw orthographic projections of lines and plane surfaces.
C106.3	Draw projections of solids.
C106.4	Draw projection of sectioned solids and development of surfaces.
C106.5	Visualize and project isometric and perspective sections of simple solids.

GE6161- Computer Practices Laboratory [C107]

C107.1	Develop C programs for simple applications making use of basic constructs, arrays function, recursion, pointers, structures and strings.
C107.2	Design applications using sequential and random access file processing.
C107.3	Develop C programs involving structures union.


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GE6162- Engineering Practices Laboratory [C108]

C108.1	Study and practice on machine tools and their operations.
C108.2	Practice on carpentry tools, components and pipe connections including plumbing work.
C108.3	Demonstrate wiring for a simple residential house, identify the ratings of various appliances like Fluorescent tube, incandescent lamp, etc.
C108.4	Calculate the different Electrical quantities, measure the energy consumption using single phase energy meter, measure the resistance to earth of an electrical equipment.
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C108.6	Elaborate on the components, gates, soldering practices.

GE6163 - Physics & Chemistry laboratory-I [C109]

C109.1	The hands on exercises undergone by the students will help them to apply physics principles of optics.
C109.2	Gain knowledge about thermal physics to evaluate engineering properties of materials.
C109.3	Outfitted with hands-on knowledge in the quantitative chemical analysis of polymer and acid based related parameters.
C109.4	Basic idea about pH and conductometric titration.

HS6251- Technical English - II [C110]

C110.1	Speak convincingly, express their opinions clearly, initiate a discussion, negotiate, argue using appropriate communicative.
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MA6251- Mathematics-II [C111]

C111.1	Estimate vector identities and interpret some integral theorems in a vector field.
C111.2	Develop an ability to solve ordinary differential equations.
C111.3	Examine the concepts of Laplace transformation and solve differential equations with given boundary conditions.
C111.4	Identify and construct analytic function and application of conformal mapping.
C111.5	Apply complex integration to evaluate contour integrals.

PH6251- Engineering Physics - II [C112]

C112.1	Conducting materials using wave mechanics.
C112.2	Semiconducting materials and their application in engineering field.
C112.3	Properties of magnetic and superconducting materials.
C112.4	Significance of dielectric and its application in the field of engineering.
C112.5	Upcoming new engineering materials and their applications in engineering fields.

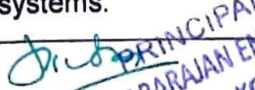
CY6251- Engineering Chemistry-II [C113]

C113.1	Understand water treatment techniques will facilitate better understanding of engineering processes and applications for further learning.
C113.2	Gain knowledge about with the principles electrochemistry, electrochemical cells, emf and applications of emf measurements.
C113.3	Gain basic knowledge in Principles of corrosion control.
C113.4	Understand fundamental concepts of Fuels and combustion
C113.5	Acquire knowledge in various energy sources and its applications.

GE6252- Basic Electrical & Electronics Engineering [C114]

C114.1	Able to understand the basic theorems used in electrical circuits and the different componenets.
C114.2	Able to understand the principle of operation, construction and working function of electrical machines.
C114.3	Ability to understand electronics componenets operation, characteristics and its applications.
C114.4	Able to understand the design, principles of digital electronics circuits.
C114.5	Able to impart the knowledge of various communication systems.


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DEPARTMENT OF HUMANITIES AND SCIENCE
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GE6253- Engineering Mechanics [C115]

C115.1	Enumerate the basic concepts of particle mechanics and solve problems
C115.2	Enumerate the basic of concepts of rigid body under static equilibrium and solve problems
C115.3	Determine the centroid of a line, areas, and volumes, center of mass of body and moment of inertia of composite areas
C115.4	Solve problems involving kinematics and kinetics of particles
C115.5	Solve problems involving kinetics of rigid bodies with and without friction

GE6261- COMPUTER AIDED DRAFTING AND MODELING LABORATORY[C116]

C116.1	Ability to design various structures using AutoCAD
C116.2	Ability to draw the detailing of the structures using various commands
C116.3	The students get knowledge about the different types of roof finishes
C116.4	The students get knowledge about the 3D modeling of the structures.
C116.5	Ability to get knowledge about the drafting of the structures in a easy way.

GE6262 - Physics & Chemistry laboratory-II [C117]

C117.1	Ability to test materials by using their knowledge of applied physics principles in optics and properties of matter..
C117.2	Assess the behaviour of columns, beams and failures of materials
C117.3	Conversant with hands-on knowledge in the quantitative chemical analysis of water quality related parameters
C117.4	Gain good knowledge about corrosion measurement


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