Department of Computer Science & Engineering Course outcomes

B.TECH (CSE) I YEAR I SEMESTER: MATHEMATICS -I

After completing this course the student must demonstrate the knowledge and ability to	
C101.1	Write the matrix representation of system of linear equations and identify the consistency of the system of equations.
C101.2	Find the Eigen values and Eigen vectors of the matrix and discuss the nature of the quadratic form.
C101.3	Analyze the convergence of sequence and series.
C101.4	Discuss the applications of mean value theorems to the mathematical problems, Evaluation of improper integrals using Beta and Gamma functions.
C101.5	Examine the extrema of functions of two variables with/ without constraints.

B.TECH (CSE) I YEAR I SEMESTER: APPLIED PHYSICS

After completing this course the student must demonstrate the knowledge and ability to	
C102.1	Identify various optical phenomena of light.
C102.2	Discuss the basic principles of quantum mechanics.
C102.3	Classify solids based on the band theory.
C102.4	Elucidate the characteristics of semiconductors and semiconductor devices.
C102.5	Explain the working principle of lasers and optical fibers.

B.TECH (CSE) I YEAR I SEMESTER: APPLIED PHYSICS LAB

After completing this course the student must demonstrate the knowledge and ability to	
C103.1	Apply optical phenomena to characterize optical sources and components.
C103.2	Determine the energy gap of a semiconductor diode and time constant of RC circuit
C103.3	Describe the electrical characteristics of PN junction diode, photodiode, LED and solar cell.
C103.4	Demonstrate the resonance in mechanical and electrical waves.
C103.5	Identify the magnetic Induction along the axis of current carrying coil.

Department of Computer Science & Engineering Course outcomes

B.TECH (CSE) I YEAR I SEMESTER: BASIC ELECTRICAL ENGINEERING

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C104.1	Understand the fundamentals of basic circuit components and their characteristics.	
C104.2	Analyze basic electrical circuits with A.C excitation.	
C104.3	Understand the concepts of magnetic circuits and transformers.	
C104.4	Acquire the basic concepts of electrical motors.	
C104.5	Understand the concept of A.C generator and low voltage electrical installations.	

B.TECH (CSE) I YEAR I SEMESTER: BASIC ELECTRICAL ENGINEERING LAB

After completing this course the student must demonstrate the knowledge and ability to	
C105.1	Get an exposure to basic electrical laws.
C105.2	Understand the response of different types of electrical circuits to different excitations.
C105.3	Understand the measurement, calculation and relation between the basic electrical parameters.
C105.4	Understand the performance characteristics of D.C electrical machines.
C105.5	Understand the performance characteristics of A.C electrical machines.

B.TECH (CSE) I YEAR I SEMESTER: ENGINEERING GRAPHICS & MODELING

After completing this course the student must demonstrate the knowledge and ability to	
C106.1	Understand the concepts of engineering drawing of planes, solids and the CAD drawing software.
C106.2	Applying the principles of engineering graphics while drawing the engineering components.
C106.3	Analyze the sectional views for their configurations.
C106.4	Evaluate the surfaces of solids developed for further processing in the engineering applications.

B.TECH (CSE) I YEAR I SEMESTER: ENGLISH LANGUAGE SKILLS LAB

After completing this course the student must demonstrate the knowledge and ability to	
C107.1	Reproduce speech sounds and improve fluency in language.
C107.2	Understand syllables and consonant clusters for appropriate pronunciation.
C107.3	Exhibit effective professional skills with rhetoric eloquence.

Department of Computer Science & Engineering Course outcomes

C107.4	Deliver enthusiastic and well-practiced presentation.
C107.5	Learn Task-Based Language Learning (TBLL) through various language learning activities effectively.

B.TECH (CSE) I YEAR I SEMESTER: PROGRAMMING FOR PROBLEM SOLVING-I

After com	After completing this course the student must demonstrate the knowledge and ability to	
C108.1	Design Algorithms and Flowcharts for real world applications using 'C'.	
C108.2	Know the usage of various operators in Program development.	
C108.3	Design programs involving decision and iteration structures.	
C108.4	Apply the concepts code reusability using Functions.	
C108.5	Analyze various searching and sorting techniques using Arrays.	

B.TECH (CSE) I YEAR I SEMESTER: PROGRAMMING FOR PROBLEM SOLVING LAB – I

After completing this course the student must demonstrate the knowledge and ability to	
C109.1	Apply the specification of syntax rules for numerical constants and variables, data types.
C109.2	Know the Usage of various operators and other C constructs.
C109.3	Design programs on decision and control constructs.
C109.4	Develop programs on code reusability using functions.
C109.5	Implement various searching and sorting techniques using arrays.

B.TECH (CSE) IYEAR II SEMESTER: MATHEMATICS - II

After completing this course the student must demonstrate the knowledge and ability to	
C110.1	Classify the various types of differential equations of first order and first degree and apply the concepts of differential
C110.1	equations to the real-world problems.
C110.2	Solve higher order differential equations and apply the concepts of differential equations to the real-world problems.
C110.3	Find the Laplace Transform of various functions and apply to find the solutions of differential equations.
C110.4	Evaluate the multiple integrals and identify the vector differential operators physically in engineering problems.
C110.5	Evaluate the line, surface and volume integrals and converting them from one to another by using vector integral theorems.

Department of Computer Science & Engineering Course outcomes

B.TECH (CSE) I YEAR II SEMESTER: CHEMISTRY

After completing this course the student must demonstrate the knowledge and ability to	
C201.1	Acquire knowledge of atomic, molecular and electronic changes related to conductivity.
C201.2	Apply the various processes of treatment of water for both domestic and industrial purpose.
C201.3	Apply the knowledge of electrode potentials for the protection of metals from corrosion.
C201.4	Analyze the major chemical reactions that are used in the synthesis of compounds.
C201.5	Apply the knowledge of polymers in every day's life.

B.TECH (CSE) I YEAR II SEMESTER: CHEMISTRY LAB

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C202.1	Determination of parameters like hardness, alkalinity and chloride content in water.	
C202.2	Estimation of rate constant of a reaction from concentration-time relationships.	
C202.3	Determination of physical properties like adsorption, surface tension and viscosity.	
C202.4	Synthesize a small drug molecule and analyze a salt sample.	
C202.5	Calculation of strength of compound using instrumentation techniques.	

B.TECH (CSE) I YEAR II SEMESTER: ENGLISH

After com	After completing this course the student must demonstrate the knowledge and ability to	
C203.1	Infer the importance of scientific discoveries in promoting social responsibilities.	
C203.2	Comprehend the given texts and respond appropriately for technical and professional purposes.	
C203.3	Communicate confidently and transfer information into various forms of writing.	
C203.4	Understand the importance of health and nutrition for a better society.	
C203.5	Present various forms of business writing skills for successful careers.	

B.TECH (CSE) I YEAR II SEMESTER: ENGLISH COMMUNICATION SKILLS LAB

After completing this course the student must demonstrate the knowledge and ability to	
C204.1	Understand the variants in pronunciation.
C204.2	Identify the diverse purposes of listening and speaking.
C204.3	Discuss ideas in diverse communicative settings.
C204.4	Exhibit increased confidence in public speaking.

Department of Computer Science & Engineering Course outcomes

C204.5	Display critical thinking, problem solving and decision making skills through GD's
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B.TECH (CSE) I YEAR II SEMESTER: PROGRAMMING FOR PROBLEM SOLVING-II

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C205.1	Identify various string handling functions in 'C'.	
C205.2	Develop programs with user defined data types.	
C205.3	Use Dynamic memory allocation functions with pointers.	
C205.4	Distinguish between Stacks and Queues.	
C205.5	Analyze various Dynamic Data Structures.	

B.TECH (CSE) I YEAR II SEMESTER: PROGRAMMING FOR PROBLEM SOLVING LAB-II

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C206.1	Build programs on various string handling functions.	
C206.2	Develop applications on user defined data types.	
C206.3	Apply dynamic memory allocation through pointers.	
C206.4	Implement linear data structures through stacks and queues.	
C206.5	Create linked list dynamically through stacks and queues.	

B.TECH (CSE) I YEAR II SEMESTER: ENGINEERING WORKSHOP

After completing this course the student must demonstrate the knowledge and ability to	
C207.1	Understanding the tools and methods of using to fabricate engineering components
C207.2	Applying the measuring techniques to verify the dimensional accuracy
C207.3	Evaluating various methods and trades of workshop in the component building

Department of Computer Science & Engineering Course outcomes

B.TECH (CSE) II YEAR I SEMESTER: PROBABILITY & STATISTICS

After completing this course the student must demonstrate the knowledge and ability to	
C301.1	1. To differentiate among random variables involved in the probability models which are useful for all branches of
	engineering.
C301.2	2. Derive relationship among variety of performance measures using probability distributions.
C301.3	3. Acquire elementary knowledge of parametric and non-parametric —tests and understand the use of observing state analysis for predicting future conditions.
C301.4	4. Identify and examine situations that generate using problems and able to solve the tests of ANOVA for classified data.
C301.5	5. Apply proper measurements, Indicators and techniques of Correlation and regression analysis.

B.TECH (CSE) II YEAR I SEMESTER: DIGITAL LOGIC DESIGN

After completing this course the student must demonstrate the knowledge and ability to	
C302.1	1. Understand various number systems, conversions, range and error detecting and correcting codes and their significance.
C302.2	2. Evaluate the minimization of logic gates using Boolean algebraic principles and k-maps.
C302.3	3. Design various simple and complex combinational circuits with real time applications.
C302.4	4. Analyze the basic principles behind Flip flops & the design of sequential circuits with real time applications.
C302.5	5. Illustrate various types of memory devices and their design.

B.TECH (CSE) II YEAR I SEMESTER: ELECTRONIC DEVICES & CIRCUITS

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C303.1	1. Demonstrate the concepts of semiconductor theory.	
C303.2	2. Interpret the characteristics of different semiconductor devices with its applications.	
C303.3	3. Apply different biasing techniques of transistors for amplification.	
C303.4	4. Analyze transistor amplifiers using small signal model.	
C303.5	5. Ability to describe the behavior of special purpose diodes.	

Department of Computer Science & Engineering Course outcomes

B.TECH (CSE) II YEAR I SEMESTER: DATA STRUCTURES

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C304.1	1. Understand the concepts of Stacks and Queues with their applications.	
C304.2	2. Analyze various operations on Binary trees.	
C304.3	3. Examine of various concepts of binary trees with real time applications.	
C304.4	4. Analyze the shortest path algorithm on graph data structures.	
	5. Outline the concepts of hashing, collision and its resolution methods using hash functions.	

B.TECH (CSE) II YEAR I SEMESTER: MATHEMATICAL FOUNDATIONS OF COMPUTER SCIENCE

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C305.1	Describe importance concepts of Object Oriented Programming	
C305.2	Develop the applications using Object Oriented Programming through C++	
C305.3	Implements the concepts of inheritance and polymorphism	
C305.4	Apply the IO Streams and files to develop a program for real time problems	
C305.5	Apply advanced features like templates and exception handling to make programs supporting reusability and sophistication	

B.TECH (CSE) II YEAR I SEMESTER:

After completing this course the student must demonstrate the knowledge and ability to	
C306.1	Apply basics of electronics to design of various complex electronics circuit
C306.2	Understand and Analyze the different types of diodes, operation and its characteristics
C306.3	Design and analyze the DC bias circuitry of BJT and FET Design biasing circuits using diodes and transistors.
C306.4	To analyze and design diode application circuits, amplifier circuits and oscillators employing BJT, FET devices.

Department of Computer Science & Engineering Course outcomes

B.TECH (CSE) II YEAR I SEMESTER: ED&CIRCUITS &DLD LAB

After completing this course the student must demonstrate the knowledge and ability to	
C307.1	Verify Super position, Maximum power transfer, Reciprocity, Thevenin's and Norton's theorems.
C307.2	Conduct OC and SC test on single–phase Transformer and calculating efficiency.
C307.3	Understand the characteristics of DC shunt generator and to conduct brake test on DC shunt motor and determination of performance characteristics.
C307.4	Identify the specifications and testing of R, L, C and Bread boards and to find the characteristics of PN junction diode, Zener diode and Transistor CE.

B.TECH (CSE) II YEAR I SEMESTER: DATA STRUCTURES LAB

After completing this course the student must demonstrate the knowledge and ability to	
C308.1	Develop the programs on stack and its applications
C308.2	Demonstrate the operations on trees
C308.3	Demonstrate the implementations of various advanced trees
C308.4	Design and implementation of programs on BST and graph traversals
C308.5	Understand the C++ program structure and also basics of C++ programming.

B.TECH (CSE) II YEAR II SEMESTER: DESIGN & ANALYSIS OF ALGORITHMS

After completing this course the student must demonstrate the knowledge and ability to	
C401.1	Analyze the efficiency of algorithms
C401.2	Develop algorithms divide & conquer, greedy and related problems
C401.3	Examine the performance of Dynamic programming
C401.4	Explain performance of algorithm using Backtracking
C401.5	Analyze NP-Hard and NP-Complete problems

B.TECH (CSE) II YEAR II SEMESTER: COMPUTER ORGANIZATION

After completing this course the student must demonstrate the knowledge and ability to	
C402.1	Understanding the basic organization of computer and different instruction formats and addressing modes.
C402.2	Analyze the concept of pipelining, segment registers and pin diagram of CPU.

Department of Computer Science & Engineering Course outcomes

C402.3	Write simple programs on assembly language.
C402.4	Evaluate various modes of data transfer between CPU and I/O devices.
C402.5	Examine various inter connection structures of multi processors.

B.TECH (CSE) II YEAR II SEMESTER: DATABASE MANAGEMENT SYSTEMS

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C403.1	Design Entity-Relationship Model for enterprise level databases.	
C403.2	Develop the database and provide restricted access to different users of database and formulate the Complex SQL queries.	
C403.3	Analyze various Relational Formal Query Languages and various Normal forms to carry out Schema refinement.	
C403.4	Use of suitable Indices and Hashing mechanisms for real time implementation.	
C403.5	Ability to analyze various concurrency control protocols and working principles of recovery algorithms	

B.TECH (CSE) II YEAR II SEMESTER: SOFTWARE ENGINEERING

After completing this course the student must demonstrate the knowledge and ability to	
C404.1	Choose a process model to apply for given project requirements
C404.2	Analyze and apply the framework activities for a given project
C404.3	Design various system models for a given scenario
C404.4	Design and apply various testing techniques
C404.5	Understand metrics for Process and Products

B.TECH (CSE) II YEAR II SEMESTER: JAVA PROGRAMMING

After completing this course the student must demonstrate the knowledge and ability to	
C405.1	Understand OOP concepts to apply basic Java constructs.
C405.2	Analyze different forms of inheritance and handle different kinds of file I/O.
C405.3	Evaluate the usage of Exception Handling and Multithreading in complex Java programs.

Department of Computer Science & Engineering Course outcomes

C405.4	Construct different GUI layouts and design GUI applications.
C405.5	Construct a full-fledged Java GUI application and Applet with database connectivity.

B.TECH (CSE) II YEAR II SEMESTER: ENVIRONMENTAL STUDIES

After completing this course the student must demonstrate the knowledge and ability to	
C406.1	Explain the importance of Ecosystem.
C406.2	Identify the importance of Renewable and Non-Renewable Resources.
C406.3	Awareness on the Variety of Living organism and the need to conserve them.
C406.4	Evaluate the sustainable developments towards Pollution free environment
C406.5	Understand the Environmental Policies Management Plan and Regulations.

B.TECH (CSE) II YEAR II SEMESTER: JAVA PROGRAMMING LAB

After completing this course the student must demonstrate the knowledge and ability to	
C407.1	Apply basic Java constructs and OOP to solve mathematical problems.
C407.2	Apply Inheritance in Java programs to implement File input/output.
C407.3	Analyze Exception Handling code and Multithreading concepts in advanced Java programs.
C407.4	Design different GUI applications using GUI layouts.
C407.5	Apply Applet development and Database connectivity to build GUI applications.

B.TECH (CSE) II YEAR II SEMESTER: DATABASE MANAGEMENT SYSTEMS LAB

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C408.1	Apply SQL statements including DDL, DML and DCL statements to perform different operations.	
C408.2	Design different views of tables for different users.	
C408.3	Apply various integrity Constraints on the database tables.	
C408.4	Apply the Normalization techniques to the data base for consistency.	
C408.5	Implement PLSQL concepts like cursors, procedures and triggers.	

Department of Computer Science & Engineering Course outcomes

B.TECH (CSE) III YEAR I SEMESTER: LINUX PROGRAMMING

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C501.1	Understand and make effective use of Linux utilities.	
C501.2	Able to write shell scripts to solve the problems.	
C501.3	Develop the skills necessary for file system and directory handling.	
C501.4	Learn the concepts of process and signal system calls.	
C501.5	Implement inter process communication mechanisms.	

B.TECH (CSE) III YEAR I SEMESTER: COMPUTER NETWORKS

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C502.1	Understand the concept of network reference models	
C502.2	Analyze various connecting devices of a network and describe multichannel access protocols	
C502.3	Analysis of routing algorithm and congestion algorithms and classify IPV4 addressing scheme	
C502.4	Understand Transport layer protocols	
C502.5	Discuss Application layer protocols	

B.TECH (CSE) III YEAR I SEMESTER: OPERATING SYSTEMS

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C503.1	Understanding the operating system concepts and process management	
C503.2	Analyze process scheduling and synchronization	
C503.3	Understand memory management concepts	
C503.4	Illustrate File system implementation and mass storage structure	
C503.5	Analyze deadlock mechanisms	

B.TECH (CSE) III YEAR I SEMESTER: FORMAL LANGUAGES & AUTOMATA THEORY

After completing this course the student must demonstrate the knowledge and ability to	
C504.1	Construct finite state diagrams while solving problems of computer science
C504.2	Construct Grammars for given Automata
C504.3	Find solutions to the problems using Turing machines

Department of Computer Science & Engineering Course outcomes

C504.4	Design of new grammar and language
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B.TECH (CSE) III YEAR I SEMESTER: HUMAN COMPUTER INTERACTION

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C505.1	Understand the capabilities of both humans and computers from the viewpoint of human information processing.	
C505.2	Analyze the design process and use the design rules.	
C505.3	Identify and analyze the user models and theories.	
C505.4	Compare different mobile applications and analyze mobile design.	
C505.5	Design the web interface using drag and drop, overlays etc.	

B.TECH (CSE) III YEAR I SEMESTER: INTRODUCTION TO MICROCONTROLLER & APPLICATIONS

After completing this course the student must demonstrate the knowledge and ability to	
C506.1	Interpret the internal organization of 8051 with its unique features.
C506.2	Infer and give examples about the various addressing modes, instruction formats and Instructions of 8051.
C506.3	Construct the hardware and software interaction with each other using programming.
C506.4	Summarize the features of the advanced architecture using ARM controller.

B.TECH (CSE) III YEAR I SEMESTER: BASICELECTRONICS & INSTRUMENTATION

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C507.1	Understanding the basic structure of an automobile	
C507.2	Evaluating different cooling and lubrication systems of an automobile.	
C507.3	Analysing the electrical systems in tandem with ignition systems	
C507.4	Comparing the various transmission systems for their effectiveness	
C507.5	Understanding and there by implement the subsystems in the automobile for its low emission	

Department of Computer Science & Engineering Course outcomes

B.TECH (CSE) III YEAR I SEMESTER: NON-CONVENTIONAL ENERGY SOURCES

After completing this course the student must demonstrate the knowledge and ability to	
C508.1	Understand various types of solar, wind renewable energy source
C508.2	Apply principles of direct energy conversion for electrical power generation
C508.3	Understand various types of bio-mass, geothermal, ocean, hybrid energy systems
C508.4	Analyze the usage of Renewable energy sources

B.TECH (CSE) III YEAR I SEMESTER: ELEMENTS OF MECHANICAL ENGINEERING

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C509.1	Understand the basic concepts of mechanical engineering.	
C509.2	Applying principles of engineering mechanics in mechanism and machines	
C509.3	Develop manufacturing methods to produce engineering components	
C509.4	Evaluating alternative designs for the engineering components	
C509.5	Comparing various standards relevant to automobiles.	

B.TECH (CSE) III YEAR I SEMESTER: PRODUCT ENGINEERING

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C510.1	Identifying scheduling techniques for project management.	
C510.2	Designing the products and their life cycles.	
C510.3	Generating the products with different material requirements.	
C510.4	Conceptualization the products with their drawings for standardization.	
C510.5	Evaluating the life of the products by conducting various tests.	

Department of Computer Science & Engineering Course outcomes

B.TECH (CSE) III YEAR I SEMESTER: SMART CITY

After completing this course the student must demonstrate the knowledge and ability to	
C511.1	To understand promote cities that provide core infrastructure and give a
	decent quality of life to its citizens
C511.2	To apply smart solution to the developing cities
C511.3	To give the economical engineering solution
C511.4	

B.TECH (CSE) III YEAR I SEMESTER: REMOTE SENSING & GIS

After completing this course the student must demonstrate the knowledge and ability to	
C512.1	Select the type of remote sensing technique / data for required purpose.
C512.2	Identify the earth surface features from satellite images.
C512.3	Analyze the energy interactions in the atmosphere and earth surface features.
C512.4	Prepare thematic maps

B.TECH (CSE) III YEAR I SEMESTER: TOTAL QUALITY MANAGEMENT

After completing this course the student must demonstrate the knowledge and ability to	
C513.1	To understand the Engineering and Management aspects of Planning, Designing, Controlling and
	Improving Quality in Manufactured products.
C513.2	To develop quality as a passion and habit.

B.TECH (CSE) III YEAR I SEMESTER: OPERATING SYSTEMS& COMPUTER NETWORKS THROUGH LINUX LAB

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C514.1	Implement Data link layer framing methods.	
C514.2	Implement various algorithms for error detection and correction.	
C514.3	Simulate various routing algorithms.	
C514.4	Implement CPU scheduling algorithms.	

Department of Computer Science & Engineering Course outcomes

C514.5	Simulate various page replacement techniques and file allocation methods.
C514.6	Implement deadlock avoidance and prevention algorithms

B.TECH (CSE) III YEAR I SEMESTER: ADVANCED COMMUNICATION SKILLS LAB

After completing this course the student must demonstrate the knowledge and ability to		
C515.1	Develop sound communication skills in various situations with the help of enriched vocabulary.	
C515.2	Practice reading techniques for a faster and better comprehension.	
C515.3	Exhibit strong writing skills to express ideas effectively.	
C515.4	Demonstrate effective presentation skills.	
C515.5	Use appropriate verbal and non-verbal skills for a successful career	

B.TECH (CSE) III YEAR II SEMESTER: WEB TECHNOLOGIES

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C601.1	Create static and dynamic web pages using HTML and java script	
C601.2	Analyze the XML and how to parse XML data with java	
C601.3	Develop web applications using server side scripting language-PHP	
C601.4	Implement the web applications using JDBC and java servlets	
C601.5	Apply web applications with Java Server Pages	

B.TECH (CSE) III YEAR II SEMESTER: COMPILER DESIGN

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C602.1	Differentiate the phases in compilation & parsing	
C602.2	Identify the process in parsing and semantic analysis	
C602.3	Explain about symbol tables and code optimization methods	
C602.4	Explain aboutcode optimization methods	
C602.5	Analyze data flow and generate object code	

Department of Computer Science & Engineering Course outcomes

B.TECH (CSE) III YEAR II SEMESTER: DATA WAREHOUSING AND DATAMINING

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C603.1	Understand the fundamentals of Data warehousing and OLAP technology.	
C603.2	Understand Data Mining and Data Pre-processing	
C603.3	Analyze and apply association algorithms on large data sets.	
C603.4	Analyze and apply classification algorithms on large data sets.	
C603.5	Analyze and apply clustering techniques on large data.	

B.TECH (CSE) III YEAR II SEMESTER: MANAGERIAL ECONOMICS AND FINANCIAL ANALYSIS

After completing this course the student must demonstrate the knowledge and ability to	
C604.1	Identify the various bugs and its consequences.
C604.2	Investigate the domain nice and ugly bugs
C604.3	Design the text planning using software testing tools and techniques for more effective systems.
C604.4	Develop the knowledge in comparing the various testing strategies

B.TECH (CSE) III YEAR II SEMESTER: OBJECT ORIENTED ANALYSIS & DESIGN

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C605.1	Understand object oriented software development process	
C605.2	Gain exposure to object oriented methodologies & UML diagrams	
C605.3	Use object oriented behavioral modeling analysis for project	
C605.4	Apply object oriented Architectural modeling analysis for project	
C605.5	Construct for developing structural design of a given project by using	
C605.6	Know how to analyze and interpret the financial statements through ratio analysis.	

Department of Computer Science & Engineering Course outcomes

B.TECH (CSE) III YEAR II SEMESTER: FUNDAMENTALS OF EMBEDDED SYSTEMS

After completing this course the student must demonstrate the knowledge and ability to	
C606.1	Contrast the basics of embedded system with its application
C606.2	Illustrate the components required for embedded system design.
C606.3	Summarize the different development tool for embedded system
C606.4	Relate the concepts of RTOS in real time programming
C606.5	Outline the features of advanced buses for distributed data transfer in system design.

B.TECH (CSE) III YEAR II SEMESTER: PRINCIPLES OF COMMUNICATION

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C607.1	Understanding the fundamentals of communications.	
C607.2	Summarize the different modulation techniques involved in analog and digital Communication.	
C607.3	Identify the applications of various wired and wireless communications in real time.	
C607.4	Elaborate the fundamentals of satellite and optical communications.	

B.TECH (CSE) III YEAR II SEMESTER: PRINCIPLES OF ELECTRICAL POWER UTILIZATION

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C608.1	Understand basic principles of illumination, electric heating and welding, Electric drives and Traction.	
C608.2	Determine the lighting requirements for flood lighting, household and industrial needs.	
C608.3	Calculate heat developed in induction furnace.	
C608.4	Evaluate speed time curves for traction	
C608.5	Analyze specific energy consumption of traction systems	

Department of Computer Science & Engineering Course outcomes

B.TECH (CSE) HIYEAR II SEMESTER: ENERGY AUDITING AND CONSERVATION

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C609.1	understand energy audit of industries	
C609.2	Predict management of energy systems	
C609.3	Sequence the methods of improving efficiency of electric motor	
C609.4	Analyze the power factor and to design a good illumination system	
C609.5	Determine pay back periods for energy saving equipment	

B.TECH (CSE) I11 YEARI I SEMESTER: BASIC AUTOMOBILE ENGINEERING

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C610.1	Understanding the basic structure of an automobile.	
C610.2	Evaluating different cooling and lubrication systems of an automobile.	
C610.3	Analysing the electrical systems in tandem with ignition systems.	
C610.4	Comparing the various transmission systems for their effectiveness.	
C610.5	Understanding and there by implement the subsystems in the automobile for its low emission.	

B.TECH (CSE) III YEAR II SEMESTER: MATERIAL SCIENCE ENGINEERING

After completing this course the student must demonstrate the knowledge and ability to	
C611.1	Understanding the crystal structures and necessity of alloys.
C611.2	Classifying the ferrous materials and their heat treatment process.
C611.3	Evaluating the non ferrous materials and their applications in Engineering usage.
C611.4	Applying the composite materials as an efficient substitute.

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C611.5	Implementing the principles of nano science and their by producing materials.
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B.TECH (CSE) III YEAR II SEMESTER: FINANCIAL INSTITUTIONS AND MARKETS

After comp	After completing this course the student must demonstrate the knowledge and ability	
C614.1	To explore Indian investment environment	
C614.2	To evaluate available investment avenues.	
C614.3	To study the operational framework of financial markets.	
C614.4	To analyze the role of regulatory bodies in Indian Financial system.	
C614.5	To identify recent trends and challenges in Indian banking sector.	

B.TECH (CSE) III YEAR II SEMESTER: WEB TECHNOLOGIES & CASE TOOLS LAB

After comp	After completing this course the student must demonstrate the knowledge and ability	
C615.1	Create static web applications using HTML	
C615.2	Create dynamic web applications XML, Java Script and validation of forms	
C615.3	Develop web applications with Servlets ,java Server Pages, PHP,MYSQL	
C615.4	Understand how UML supports the entire OOAD process	
C615.5	Apply the phases of OOAD to real time applications	
C615.6	Understand the essential characteristics of tools used for designing a model	

B.TECH (CSE) IV YEAR I SEMESTER: COMPILER DESIGN & DATA MINING LAB

After completing this course the student must demonstrate the knowledge and ability to	
C616.1	Understand the role of lexical analyzer.

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C616.2	Identify the working of compiler construction tools – LEX, YACC and Parser
C616.3	Derive machine code from intermediate code.
C616.4	Able to understand WEKA tool.
C616.5	Ability to add mining algorithms as a component to the existing tools.
C616.6	Able to apply mining techniques for realistic data.

B.TECH (CSE) IV YEAR I SEMESTER: MOBILE APPLICATION DEVELOPMENT

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C701.1	Understand the concept of J2ME.	
C701.2	Design a User interface for a mobile application using J2ME.	
C701.3	Create a mobile application for small computing devices.	
C701.4	Apply the concepts of JDBC & Embedded SQL for Database Connection.	
C701.5	Understand the generic connection framework.	

B.TECH (CSE) IV YEAR I SEMESTER: INFORMATION SECURITY

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C702.1	Identify various security attacks	
C702.2	Understand various encryption principles and algorithms	
C702.3	Analyze different cryptography algorithms	
C702.4	Understand various security association and key management	
C702.5	Design a firewall for security	

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B.TECH (CSE) IV YEAR I SEMESTER: CLOUD COMPUTING

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C703.1	Understand Different Cloud Services	
C703.2	Analyze different Approaches for migration into cloud	
C703.3	Prioritize the challenges in cloud Technology	
C703.4	Understand the Virtualization Concepts	
C703.5	Assess future Research directions in cloud computing	

B.TECH (CSE) IV YEAR I SEMESTER: BIG DATA ANALYTICS

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C704.1	Explain the foundations, definitions, and challenges of Big Data.	
C704.2	Use Hadoop file system interfaces.	
C704.3	Program using HADOOP and Map Reduce, NOSQL.	
C704.4	Understand various Hadoop Eco Systems like Pig, Hive.	
C704.5	Outline Hadoop Eco System using Hbase, Zookeper.	

B.TECH (CSE) IV YEAR I SEMESTER: INTERNET OF THINGS

After comp	After completing this course the student must demonstrate the knowledge and ability to	
C705.1	Describe various IoT enabled technologies.	
C705.2	Understand the concepts of M2M with necessary protocols.	
C705.3	Illustrate Python programming for IoT	
C705.4	Examine the Python programming with Raspberry PI	
C705.5	Design web applications for IoT	

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B.TECH (CSE) IV YEAR I SEMESTER: ADVANCED DATABASES

After completing this course the student must demonstrate the knowledge and ability to	
C706.1	Understand the concepts of Distributed Database Systems.
C706.2	Identify different Architectural Models for Distributed DBMS.
C706.3	Characterize the query processors.
C706.4	Design Algorithms for Concurrency control Mechanisms.
C706.5	Decide different Parallel DBMS Techniques based on given

B.TECH (CSE) IV YEAR I SEMESTER: SOFTWARE TESTING METHODOLOGIES

After completing this course the student must demonstrate the knowledge and ability to	
C707.1	Understand the purpose of Software testing.
C707.2	Outline various transaction flow testing techniques.
C707.3	Understand domain testing.
C707.4	Construct decision tables for Logic Based Testing.
C707.5	Implement node reduction algorithm.

B.TECH (CSE) IV YEAR I SEMESTER: INTRODUCTION TO MAT LAB

After completing this course the student must demonstrate the knowledge and ability to	
C708.1	Break down computational problems into a series of simple steps.
C708.2	Create programs in the MATLAB language for engineering applications
C708.3	Appraise and get familiarized with the visualization techniques.
C708.4	Familiarized with Different application tools required for different area of domain.
C708.5	Expose to the common algorithms and techniques that are the building blocks of
C/08.5	MATLAB.

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B.TECH (CSE) IV YEAR I SEMESTER: CIRCUIT SIMULATION USING PSPICE

After completing this course the student must demonstrate the knowledge and ability to	
C709.1	Describe circuits for PSpice simulation.
C709.2	Understand the types of dc - ac and their output variables analysis.
C709.3	Understand the response of Transient analysis and obtain their output variables.
C709.4	Students can able to analyze and develop simulation circuit for different applications.

B.TECH (CSE) IV YEAR I SEMESTER: ENERGY STORAGE SYSTEMS

After completing this course the student must demonstrate the knowledge and ability to	
C710.1	Understand the concepts of energy storage devices.
C710.2	Analyze the characteristics of energy from various sources and need for storage.
C710.3	Classify various types of energy storage and various devices used for the purpose.
C710.4	Apply the same concepts to real time problems.

B.TECH (CSE) IV YEAR I SEMESTER: ELECTRICAL VEHICLE & HYBRID VEHICLE

After completing this course the student must demonstrate the knowledge and ability to	
C711.1	Understand theworking of different configurations of electric vehicles, hybrid vehicles and its components.
C711.2	Apply the basic concepts of batteries and Motors in the design of Electric and Hybrid Vehicles
C711.3	Differentiate the modes of operation of Hybrid Vehicles.
C711.4	Analyze the performance of hybrid vehicles.
C711.5	Design the basic parameters of Electric and Hybrid Electric Vehicles.

B.TECH (CSE) IV YEAR I SEMESTER: OPTIMIZATION TECHNIQUES

After completing this course the student must demonstrate the knowledge and ability to	
C712.1	Understanding the concepts of optimization techniques.
C712.2	Compute the minimum transportation cost by different methods.
C712.3	Analyzing the waiting lines in terms of Queuing theory parameters.

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C712.4	Applying the costing principles in identifying the minimum inventory.
C712.5	Evaluating the simulation process for various OR modelsList various kinds of tools.

B.TECH (CSE) IV YEAR I SEMESTER: MAINTENANCE AND SAFETY ENGINEERING

After completing this course the student must demonstrate the knowledge and ability to	
C713.1	Understanding the need for maintenance of a machine in an industry.
C713.2	Identifying various maintenance policies.
C713.3	Analyzing the cost and time concepts while implementing the maintenance.
C713.4	Evaluating the quality concepts for safety and maintenance of equipment.
C713.5	Appreciating the terms reliability and maintainability with reference the maintenance of an equipment.

B.TECH (CSE) IV YEAR I SEMESTER: ELEMENTS OF CIVIL ENGINEERING

After completing this course the student must demonstrate the knowledge and ability to		
C714.1	The students will be able to understand the concept of different building byelaws and planning principles.	
C714.2	Students can develop an understanding on Geotechnical aspect of civil engineering.	
C714.3	The students will be able to develop linear programming models for water resources problems by using graphical and simplex and revised simplex techniques.	
C714.4	Students can develop and solve forward and backward recursive dynamic programming models.	

B.TECH (CSE) IV YEAR I SEMESTER: FUNDAMENTALS OF ENTREPRENEURSHIP

After completing this course the student must demonstrate the knowledge and ability to			
C716.1	To provide awareness about entrepreneurship		
C716.2	To develop idea generation, creative and innovative skills among students.		
C716.3	To self-motivate the students by making aware of different opportunities by exploring themselves by discussing successful growth/failure stories.		
C716.4	To learn to start an enterprise and design business plans those are suitable for funding by considering all dimensions of		

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	business.
C716.5	To understand entrepreneurial process by way of studying different case studies.

B.TECH (CSE) IV YEAR II SEMESTER: DESIGN PATTERNS

After completing this course the student must demonstrate the knowledge and ability to		
C801.1	Understand the Design patterns in software applications	
C801.2	Discuss the Creational Patterns	
C801.3	Categorize the Structural Pattern	
C801.4	Investigate Behavioral Patterns	
C801.5	Construct the good design pattern structures	

B.TECH (CSE) IV YEAR II SEMESTER: E-COMMERCE

After completing this course the student must demonstrate the knowledge and ability to		
C802.1	Identify the anatomy of E-commerce applications.	
C802.2	Categorize different electronic payment systems.	
C802.3	Examine supply chain management.	
C802.4	Analyze the various marketing strategies for an online business.	
C802.5	Design strategies for E-commerce catalogues.	

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B.TECH (CSE) IV YEAR II SEMESTER: SEMANTIC WEB & SOCIAL NETWORKS

After completing this course the student must demonstrate the knowledge and ability to		
C803.1	Understand knowledge representation for the Semantic WebIntelligence.	
C803.2	Identify the role of Ontologies in the semantic web.	
C803.3	Learn Ontology Engineering.	
C803.4	Develop Semantic Web Applications and Services.	
C803.5	Create OWL-S Ontology for Web Services.	