Moodlakatte Institute of Technology
(A Unit of Moodlakatte Nagarathna Bhujanga Shetty Trust (R.))
(Approved by AICTE, New Delhi & Affiliated to V T U , Belagavi)
Moodlakatte - 576 217, Kundapura Taluk, Udupi District, Karnataka

Course outcome statements of 2018-2022 Batch

The below table represents the course outcome statements of the courses offered from first semester to eight semester of Computer Science Engineering 2018-2022 Batch.

Course Name	CALCULUS AND LINEAR ALGEBRA
Course Code	18MAT11
CO 1	Apply the knowledge of calculus to solve problems related to polar curves and its applications in determining the bentness of a curve.
CO 2	Learn the notion of partial differentiation to calculate rates of change of multivariate functions and solve problems related to composite functions and Jacobians.
CO 3	Apply the concept of change of order of integration and variables to evaluate multiple integrals and their usage in computing the area and volumes.
CO 4	Solve first order linear/nonlinear differential equation analytically using standard methods
CO 5	Make use of matrix theory for solving system of linear equations and compute eigenvalues and eigenvectors required for matrix diagonalization process.

Course Name	ENGINEERING PHYSICS
Course Code	18PHY12/21
CO 1	Understand various types of oscillations and their implications, the role of Shock waves in various fields and recognize the elastic properties of materials for engineering applications
CO 2	Realize the interrelation between time varying electric field and magnetic field, the transverse nature of the EM waves and their role in optical fibre communication.
CO 3	Compute Eigen values, Eigen functions, momentum of Atomic and subatomic particles using Time independent 1-D Schrodinger's wave equation.
CO 4	Apprehend theoretical background of laser, construction and working of different types of lasers and its applications in different fields
CO 5	Understand various electrical and thermal properties of materials like conductors, semiconductors and dielectrics using different theoretical models.

Course Name	BASIC ELECTRICAL ENGINEERING
Course Code	18ELE13/23
CO 1	Analyse DC and A.C circuits.
CO 2	Explain the principle of operation and construction of single-phase transformers.
CO 3	Explain the principle of operation and construction of DC machines and synchronous machines.
CO 4	Explain the principle of operation and construction of three phase induction motors.

CO 5	Discuss concepts of electrical wiring, circuit protecting devices and earthing.

Course Name	ELEMENTS OF CIVIL ENGINEERING AND MECHANICS
Course Code	18CIV 14/24
CO 1	Mention the applications of various fields of Civil Engineering
CO 2	Compute the resultant of a given force system subjected to various loads.
CO 3	Comprehend the action of Forces, Moments and other loads on systems of rigid bodies and compute the reactive forces that develop as a result of the external loads.
CO 4	Locate the Centroid and compute the Moment of Inertia of regular and built-up sections.
CO 5	Express the relationship between the motion of bodies and analyse the bodies in motion

Course Name	ENGINEERING GRAPHICS
Course Code	18EGDL15/25
CO 1	Prepare engineering drawings as per BIS conventions mentioned in the relevant codes.
CO 2	Produce computer generated drawings using CAD software
CO 3	Use the knowledge of orthographic projections to represent engineering information concepts and present the same in the form of drawings.
CO 4	Develop isometric drawings of simple objects reading the orthographic projections of those objects.
CO 5	Convert pictorial and isometric views of simple objects to orthographic views.

Course Name	ENGINEERING PHYSICS LABORATORY
Course Code	18PHYL16/26
CO 1	Apprehend the concepts of interference of light, diffraction of light, Fermi energy and magnetic effect of current
CO 2	Understand the principles of operations of optical fibres and semiconductor devices such as Photodiode, and NPN transistor using simple circuits
CO 3	Determine elastic moduli and moment of inertia of given materials with the help of suggested procedures
CO 4	Recognize the resonance concept and its practical applications
CO 5	Understand the importance of measurement procedure, honest recording and representing the data, reproduction of final results

Course Name	BASIC ELECTRICAL ENGINEERING LABORATORY

Course Code	18ELEL17/27
CO 1	Identify the common electrical components and measuring instruments used for conducting experiments in the electrical laboratory.
CO 2	Compare power factor of lamps
CO 3	Determine impedance of an electrical circuit and power consumed in a 3-phase load.
CO 4	Determine earth resistance and understand two way and three way control Of lamps.

Course Name	TECHNICAL ENGLISH - I
Course Code	18EGH18
CO 1	Use grammatical English and essentials of language skills and identify the nuances of phonetics, intonation and flawless pronunciation
CO 2	Implement English vocabulary at command and language proficiency
CO 3	Identify common errors in spoken and written communication
CO 4	Understand and improve the nonverbal communication and kinesics
CO 5	Perform well in campus recruitment, engineering and all other general competitive examinations

Course Name	ADVANCED CALCULUS AND NUMERICAL METHODS
Course Code	18MAT21
CO 1	Illustrate the applications of multivariate calculus to understand the solenoidal and irrotational vectors and also exhibit the interdependence of line, surface and volume integrals.
CO 2	Demonstrate various physical models through higher order differential equations and solve such linear ordinary differential equations.
CO 3	Construct a variety of partial differential equations and solution by exact methods/method of separation of variables
CO 4	Explain the applications of infinite series and obtain series solutions of ordinary differential equations.
CO 5	Apply the knowledge of numerical methods in the modelling of various physical and engineering phenomena.

Course Name	ENGINEERING CHEMISTRY

Course Code	18CHE12/22
CO 1	Use of free energy in equilibria, rationalize bulk properties and processes using thermodynamic considerations, electrochemical energy systems.
CO 2	Causes & effects of corrosion of metals and control of corrosion. Modification of surface properties of metals to develop resistance to corrosion, wear tear, impact etc.by electroplating and electroless plating.
CO 3	Production & consumption of energy for industrialization of country and living standards of people. Electrochemical and concentration cells. Classical, modern batteries and fuel cells. Utilization of solar energy for different useful forms of energy.
CO 4	Environmental pollution, waste management and water chemistry.
CO 5	Different techniques of instrumental methods of analysis. Fundamental principles of nano materials.

Course Name	C PROGRAMMING FOR PROBLEM SOLVING
Course Code	18CPS13/23
CO 1	Illustrate simple algorithms from different domains such as mathematics, physics, etc.
CO 2	Construct a programming solution to the given problem using C.
CO 3	Identify and correct the syntax and logical errors in C programs.
CO 4	Modularize the given problem using functions and structures.

Course Name	BASIC ELECTRONICS
Course Code	18ELN14/24
CO 1	Describe the operation of diodes, BIT, PET and Operational Amplifiers
CO 2	Design and explain the construction of rectifiers, regulators, amplifiers and oscillators.
CO 3	Describe general operating principles of SCRs and its application.
CO 4	Explain the working and design of Fixed voltage IC regulator using 7805 and A stable oscillator using timer IC *555*.
CO 5	Explain the different number systems and their conversions and construct simple combinational and sequential logic circuits using Flip-Flops.
CO 6	Describe the basic principle of operation of communication systems and mobile phones.

Course	ELEMENTS OF MECHANICAL ENGINEERING

Name	
Course Code	**18ME15/25**
CO 1	Identify different sources of energy and their conversion process.
CO 2	Explain the working principle of hydraulic turbines, pumps, IC engines and refrigeration.
CO 3	Recognize various metal joining processes and power transmission elements.
CO 4	Understand the properties of common engineering materials and their applications in the engineering industry.
CO 5	Discuss the working of conventional machine tools, machining processes, tools and accessories.
CO 6	Describe the advanced manufacturing systems

Course Name	**ENGINEERING CHEMISTRY LABORATORY**
Course Code	**18CHEL16/26**
CO 1	Handling different types of instruments for analysis of materials using small quantities of materials involved for quick and accurate results.
CO 2	Carrying out different types of titrations for estimation of concerns in materials using comparatively more quantities of materials involved for good results.

Course Name	**C PROGRAMMING LABORATORY**
Course Code	**18CPL17/27**
CO 1	Write algorithms, flowcharts and programs for simple problems. Correct syntax and logical errors to execute a program.
CO 2	Write iterative and wherever possible recursive programs
CO 3	Demonstrate use of functions, arrays, strings, structures and pointers in problem solving.

Course Name	**TECHNICAL ENGLISH - II**
Course Code	**18EGH28**
CO 1	Identify common errors in spoken and written communication
CO 2	Get familiarized with English vocabulary and language proficiency
CO 3	Improve nature and style of sensible writing and acquire employment and workplace communication skills
CO 4	Improve their Technical Communication Skills through Technical Reading and

	Writing practices
CO 5	Perform well in campus recruitment, engineering and all other general competitive examinations.

Course Name	**TRANSFORM CALCULUS, FOURIER SERIES AND NUMERICAL TECHNIQUES**
Course Code	**18MAT31**
CO 1	Use Laplace transform and inverse Laplace transform in solving differential/ integral equations arising in network analysis, control systems and other fields of engineering.
CO 2	Demonstrate Fourier series to study the behaviour of periodic functions and their applications in system communications, digital signal processing and field theory.
CO 3	Make use of Fourier transform and Z-transform to illustrate discrete/continuous function arising in wave and heat propagation, signals and systems.
CO 4	Solve first and second order ordinary differential equations arising in engineering problems using single step and multistep numerical methods.
CO 5	Determine the externals of functionals using calculus of variations and solve problems arising in dynamics of rigid bodies and vibrational analysis.

Course Name	**DATA STRUCTURES AND APPLICATIONS**
Course Code	**18CS32**
CO 1	Use different types of data structures, operations and algorithms
CO 2	Apply searching and sorting operations on files
CO 3	Use stack, Queue, Lists, Trees and Graphs in problem solving
CO 4	Implement all data structures in a high-level language for problem solving

Course Name	**ANALOG AND DIGITAL ELECTRONICS**
Course Code	**18CS33**
CO 1	Design and analyse application of analog circuits using photo devices, timer IC, power supply and regulator IC and op-amp.
CO 2	Explain the basic principles of A/D and D/A conversion circuits and develop the same
CO 3	Simplify digital circuits using Karnaugh Map, and Quine-McCluskey Methods
CO 4	Explain Gates and flip flops and make us design different data processing circuits, registers and counters and compare the types.

CO 5	Develop simple HDL programs

Course Name	**COMPUTER ORGANIZATION**
Course Code	**18CS34**
CO 1	Explain the basic organization of a computer system
CO 2	Demonstrate functioning of different subsystems, such as processor, Input/output and memory.
CO 3	Illustrate hardwired control and micro programmed control, pipelining, embedded and other computing systems.
CO 4	Design and analyse simple arithmetic and logical units

Course Name	**SOFTWARE ENGINEERING**
Course Code	**18CS35**
CO 1	Design a software system, component, or process to meet desired needs within realistic constraints.
CO 2	Assess professional and ethical responsibility
CO 3	Function on multi-disciplinary teams
CO 4	Use the techniques, skills, and modern engineering tools necessary for engineering practice
CO 5	Analyse, design, implement, verify, validate, implement, apply, and maintain software systems or parts of software systems

Course Name	**DISCRETE MATHEMATICAL STRUCTURE**
Course Code	**18CS36**
CO 1	Use propositional and predicate logic in knowledge representation and truth verification
CO 2	Demonstrate the application of discrete structures in different fields of computer science.
CO 3	Solve problems using recurrence relations and generating functions
CO 4	Application of different mathematical proofs techniques in proving theorems in the courses
CO 5	Compare graphs, trees and their applications.

Course Name	**ANALOG AND DIGITAL ELECTRONICS LABORATORY**
Course Code	**18CSL37**

CO 1	Use appropriate design equations / methods to design the given circuit
CO 2	Examine and verify the design of both analog and digital circuits using simulators
CO 3	Make use of electronic components, ICs, instruments and tools for design and testing of circuits for the given the appropriate inputs.
CO 4	Compile a laboratory journal which includes; aim, tool/instruments/software/components used, design equations used and designs, schematics, program listing, procedure followed, relevant theory, results as graphs and tables, interpreting and concluding the findings.

Course Name	**DATA STRUCTURES LABORATORY**
Course Code	**18CSL38**
CO 1	Analyse and compare various linear and non-linear data structures
CO 2	Code, debug and demonstrate the working nature of different types of data structures and their applications
CO 3	Implement, analyse and evaluate the searching and sorting algorithms
CO 4	Choose the appropriate data structure for solving real world problems

Course Name	**CONSTITUTION OF INDIA, PROFESSIONAL ETHICS AND CYBER LAW (CPC)**
Course Code	**18CPC39/49**
CO 1	Have constitutional knowledge and legal literacy
CO 2	Understand Engineering and Professional ethics and responsibilities of Engineers.
CO 3	Understand the cybercrimes and cyber laws for cyber safety measures

Course Name	**Vyavaharika Kannada (Kannada for Communication)**
Course Code	**18KVK39/49**
CO 1	Understand the grammar in Kannada language and their awareness
CO 2	Build communication skills in day-to-day activities
CO 3	Develop interest on Kannada Language and Literature

Course Name	**Aadalitha Kannada (Kannada for Administration)**
Course Code	**18KAK39/49**
CO 1	□□□□ □□□□□□□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□ □□□□□□

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Course Name	**ADDITIONAL MATHEMATICS – I**
Course Code	**18MATDIP31**
CO 1	Apply concepts of complex numbers and vector algebra to analyse the problems arising in related area
CO 2	Use derivatives and partial derivatives to calculate the rate of change of multivariate functions.
CO 3	Analyse position, velocity and acceleration in two and three dimensions of vector valued functions.
CO 4	Learn techniques of integration including the evaluation of double and triple integrals.
CO 5	Identify and solve first order ordinary differential equations

Course Name	**COMPLEX ANALYSIS, PROBABILITY AND STATISTICAL METHODS**
Course Code	**18MAT41**
CO 1	Use the concepts of analytic function and complex potentials to solve the problems arising in electromagnetic field theory.
CO 2	Utilize conformal transformation and complex integral arising in aerofoil theory, fluid flow visualization and image processing.
CO 3	Apply discrete and continuous probability distributions in analysing the probability models arising in the engineering field.
CO 4	Make use of the correlation and regression analysis to fit a suitable mathematical model for the statistical data.
CO 5	Construct joint probability distributions and demonstrate the validity of testing the hypothesis

Course Name	**DESIGN AND ANALYSIS OF ALGORITHMS**
Course Code	**18CS42**
CO 1	Describe computational solutions to well-known problems like searching, sorting etc.

CO 2	Estimate the computational complexity of different algorithms.
CO 3	Devise an algorithm using appropriate design strategies for problem solving.

Course Name	**OPERATING SYSTEMS**
Course Code	**18CS43**
CO 1	Demonstrate need for OS and different types of OS
CO 2	Apply suitable techniques for management of different resources
CO 3	Use processor, memory, storage and file system commands
CO 4	Realize the different concepts of OS in platform of usage through case studies

Course Name	**MICROCONTROLLER AND EMBEDDED SYSTEMS**
Course Code	**18CS44**
CO 1	Describe the architectural features and instructions of ARM microcontroller
CO 2	Apply the knowledge gained for Programming ARM for different applications.
CO 3	Interface external devices and I/O with ARM microcontroller
CO 4	Interpret the basic hardware components and their selection method based on the characteristics and attributes of an embedded system.
CO 5	Develop the hardware /software co-design and firmware design approaches.
CO6	Demonstrate the need of real time operating system for embedded system applications

Course Name	**OBJECT ORIENTED CONCEPTS**
Course Code	**18CS45**
CO 1	Explain the object-oriented concepts and JAVA.
CO 2	Develop computer programs to solve real world problems in Java
CO 3	Develop simple GUI interfaces for a computer program to interact with users, and to understand the event-based GUI handling principles using swings.

Course Name	**DATA COMMUNICATION**
Course Code	**18CS46**
CO 1	Explain the various components of data communication.
CO 2	Explain the fundamentals of digital communication and switching

CO 3	Compare and contrast data link layer protocols
CO 4	Summarize IEEE 802.xx standards

Course Name	**DESIGN AND ANALYSIS OF ALGORITHMS LABORATORY**
Course Code	**18CSL47**
CO 1	Design algorithms using appropriate design techniques (brute-force, greedy, dynamic programming, etc.)
CO 2	Implement a variety of algorithms such assorting, graph related, combinatorial, etc., in a high-level language.
CO 3	Analyse and compare the performance of algorithms using language features.
CO 4	Apply and implement learned algorithm design techniques and data structures to solve real-world problems

Course Name	**MICROCONTROLLER AND EMBEDDED SYSTEMS LABORATORY**
Course Code	**18CSL48**
CO 1	Develop and test program using ARM7TDMI/LPC2148
CO 2	Conduct the following experiments on an ARM7TDMI/LPC2148 evaluation board using evaluation version of Embedded 'C' & Keil Uvision-4 tool/compiler

Course Name	**ADDITIONAL MATHEMATICS – II**
Course Code	**18MATDIP41**
CO 1	Solve systems of linear equations using matrix algebra.
CO 2	Apply the knowledge of numerical methods in modelling and solving engineering problems.
CO 3	Make use of analytical methods to solve higher order differential equations.
CO 4	Classify partial differential equations and solve them by exact methods.
CO 5	Apply elementary probability theory and solve related problems

Course Name	**MANAGEMENT AND ENTREPRENEURSHIP FOR IT INDUSTRY**
Course Code	**18CS51**
CO 1	Define management, organization, entrepreneur, planning, staffing, ERP and outline their importance in entrepreneurship

CO 2	Utilize the resources available effectively through ERP
CO 3	Make use of IPRs and institutional support in entrepreneurship

Course Name	**COMPUTER NETWORKS AND SECURITY**
Course Code	**18CS52**
CO 1	Explain principles of application layer protocols
CO 2	Recognize transport layer services and infer UDP and TCP protocols
CO 3	Classify routers, IP and Routing Algorithms in network layer
CO 4	Understand the Wireless and Mobile Networks covering IEEE 802.11 Standard
CO 5	Describe Multimedia Networking and Network Management

Course Name	**DATABASE MANAGEMENT SYSTEM**
Course Code	**18CS53**
CO 1	Identify, analyse and define database objects, enforce integrity constraints on a database using RDBMS
CO 2	Use Structured Query Language (SQL) for database manipulation
CO 3	Design and build simple database systems
CO 4	Develop applications to interact with databases.

Course Name	**AUTOMATA THEORY AND COMPUTABILITY**
Course Code	**18CS54**
CO 1	Acquire fundamental understanding of the core concepts in automata theory and Theory of Computation
CO 2	Learn how to translate between different models of Computation (e.g., Deterministic and Non-deterministic and Software models).
CO 3	Design Grammars and Automata (recognizers) for different language classes and become knowledgeable about restricted models of Computation (Regular, Context Free) and their relative powers
CO 4	Develop skills in formal reasoning and reduction of a problem to a formal model, with an emphasis on semantic precision and conciseness.
CO 5	Classify a problem with respect to different models of Computation.

Course Name	**APPLICATION DEVELOPMENT USING PYTHON**
Course Code	**18CS55**
CO 1	Demonstrate proficiency in handling loops and creation of functions.
CO 2	Identify the methods to create and manipulate lists, tuples and dictionaries.
CO 3	Discover the commonly used operations involving regular expressions and file system.
CO 4	Interpret the concepts of Object-Oriented Programming as used in Python.
CO 5	Determine the need for scraping websites and working with CSV, JSON and other file formats

Course Name	**UNIX PROGRAMMING**
Course Code	**18CS56**
CO 1	Explain Unix Architecture, File system and use of Basic Commands
CO 2	Illustrate Shell Programming and to write Shell Scripts
CO 3	Categorize, compare and make use of Unix System Calls
CO 4	Build an application/service over a Unix system

Course Name	**COMPUTER NETWORK LABORATORY**
Course Code	**18CSL57**
CO 1	Analyse and compare various networking protocols.
CO 2	Demonstrate the working of different concepts of networking
CO 3	Implement, analyse and evaluate networking protocols in NS2 / NS3 and JAVA programming language

Course Name	**DBMS LABORATORY WITH MINI PROJECT**
Course Code	**18CSL58**
CO 1	Create, Update and query on the database.
CO 2	Demonstrate the working of different concepts of DBMS
CO 3	Implement, analyse and evaluate the project developed for an application

Course Name	ENVIRONMENTAL STUDIES
Course Code	18CIV59
CO 1	Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale,
CO 2	Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment.
CO 3	Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components
CO 4	Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues.

Course Name	SYSTEM SOFTWARE AND COMPILERS
Course Code	18CS61
CO 1	Explain system software
CO 2	Design and develop lexical analysers, parsers and code generators
CO 3	Utilize lex and yacc tools for implementing different concepts of system software

Course Name	COMPUTER GRAPHICS AND VISUALIZATION
Course Code	18CS62
CO 1	Design and implement algorithms for 2D graphics primitives and attributes.
CO 2	Illustrate Geometric transformations on both 2D and 3D objects
CO 3	Apply concepts of clipping and visible surface detection in 2D and 3D viewing, and Illumination Models.
CO 4	Decide suitable hardware and software for developing graphics packages using OpenGL.

Course Name	WEB TECHNOLOGY AND ITS APPLICATIONS
Course Code	18CS63
CO 1	Adapt HTML and CSS syntax and semantics to build web pages.
CO 2	Construct and visually format tables and forms using HTML and CSS
CO 3	Develop Client-Side Scripts using JavaScript and Server-Side Scripts using PHP to generate and display the contents dynamically.
CO 4	Appraise the principles of object-oriented development using PHP

CO 5	Inspect JavaScript frameworks like jQuery and Backbone which facilitates developers to focus on core features.

Course Name	**CLOUD COMPUTING AND ITS APPLICATIONS**
Course Code	**18CS643**
CO 1	Explain cloud computing, virtualization and classify services of cloud computing
CO 2	Illustrate architecture and programming in cloud
CO 3	Describe the platforms for development of cloud applications and List the application of cloud.

Course Name	**CONSERVATION OF NATURAL RESOURCES**
Course Code	**18CV656**
CO 1	Apprehend various components of land as a natural resource and land use planning.
CO 2	Know availability and distribution for water resources as applied to India.
CO 3	Analyse the components of air as a resource and its pollution.
CO 4	Discuss biodiversity & its role in ecosystem functioning.
CO 5	Critically appreciate the environmental concerns of today.

Course Name	**SYSTEM SOFTWARE LABORATORY**
Course Code	**18CSL66**
CO 1	Implement and demonstrate Lexer‟s and Parser‟s
CO 2	Evaluate different algorithms required for management, scheduling, allocation and communication used in the operating system.

Course Name	**COMPUTER GRAPHICS LABORATORY WITH MINI PROJECT**
Course Code	**18CSL67**
CO 1	Apply the concepts of computer graphics
CO 2	Implement computer graphics applications using OpenGL
CO 3	Animate real world problems using OpenGL

Course Name	**MOBILE APPLICATION DEVELOPMENT**

Course Code	18CSMP68
CO 1	Create, test and debug Android applications by setting up an Android development environment.
CO 2	Implement adaptive, responsive user interfaces that work across a wide range of devices.
CO 3	Infer long running tasks and background work in Android applications
CO 4	Demonstrate methods in storing, sharing and retrieving data in Android applications.
CO 5	Infer the role of permissions and security for Android applications

Course Name	ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
Course Code	18CS71
CO 1	Appraise the theory of Artificial intelligence and Machine Learning.
CO 2	Illustrate the working of AI and ML Algorithms
CO 3	Demonstrate the applications of AI and ML.

Course Name	BIG DATA AND ANALYTICS
Course Code	18CS72
CO 1	Understand fundamentals of Big Data analytics.
CO 2	Investigate Hadoop framework and Hadoop Distributed File system.
CO 3	Illustrate the concepts of NoSQL using MongoDB and Cassandra for Big Data.
CO 4	Demonstrate the MapReduce programming model to process the big data along with Hadoop tools.
CO 5	Use Machine Learning algorithms for real world big data
CO 6	Analyse web contents and Social Networks to provide analytics with relevant visualization tools.

Course Name	USER INTERFACE DESIGN
Course Code	18CS734
CO 1	Design the User Interface, design, menu creation, windows creation and connection between menus and windows

Course Name	CRYPTOGRAPHY
Course Code	18CS744
CO 1	Define cryptography and its principles
CO 2	Explain Cryptography algorithms
CO 3	Illustrate Public and Private key cryptography
CO 4	Explain Key management, distribution and certification
CO 5	Explain authentication protocols
CO 6	Tell about IPSec

Course Name	ENVIRONMENTAL PROTECTION AND MANAGEMENT
Course Code	18CV753
CO 1	Appreciate the elements of Corporate Environmental Management systems complying to international environmental management system standards.
CO 2	Lead pollution prevention assessment team and implement waste minimization options
CO 3	Develop, Implement, maintain and Audit Environmental Management systems for Organizations.

Course Name	INTERNET OF THINGS
Course Code	18CS81
CO 1	Interpret the impact and challenges posed by IoT networks leading to new architectural models
CO 2	Compare and contrast the deployment of smart objects and the technologies to connect them to network
CO 3	Appraise the role of IoT protocols for efficient network communication
CO 4	Elaborate the need for Data Analytics and Security in IoT.
CO 5	Illustrate different sensor technologies for sensing real world entities and identify the applications of IoT in Industry.

Course Name	STORAGE AREA NETWORKS

Course Code	**18CS822**
CO 1	Identify key challenges in managing information and analyse different storage networking technologies and virtualization
CO 2	Explain components and the implementation of NAS
CO 3	Describe CAS architecture and types of archives and forms of virtualization
CO 4	Illustrate the storage infrastructure and management activities