Semester 1
Course Code: CS1121
Course Name: COMPUTER FUNDAMENTALS AND PROGRAMMING IN C
COURSE OUTCOMES:
CO1: Remember the basics of computer
CO2: Understand the structure of program writing
CO3: Apply control structures and pointers
CO4: Analyze user defined functions
CO5: Understand dynamic memory allocation
CO6: Understand string handling functions

Course Code: CS1132
Course Name: DIGITAL ELECTRONICS
COURSE OUTCOMES:
CO1: Remember the basic concepts of electronics
CO2: Familiarize the concept of different number systems
CO3: Understanding the properties of logic gates
CO4: Apply different techniques and theorems to simplify the sop forms
CO5: Analyze the characteristics of different combinational logic circuits.

Course Code: CS1122
Course Name: VALUE EDUCATION
COURSE OUTCOMES:
CO1: Remember the basic concepts on NSS and NCC
CO2: Understand the impacts of disaster management in different environments.
CO3 Understand the features of Constitution of India
Course Code: EN 1111.4

Course name: LANGUAGE SKILLS
COURSE OUTCOMES:
CO 01: The students can acquire basic learning skills.
CO 02: The students can understand interactive skills.
CO 03: The students can explain literary works.
CO 04: The students can improve their employability quotient

Course code: MM1131.10
Course Name: Calculus and Number Theory
COURSE OUTCOMES:
CO 01: Ability to apply differentiation to solve problem
CO 02: Ability to apply differential equation to solve problem
CO 03: Ability to apply the concept of set theory
CO 04: Able to formulate problems and solve recurrence relations

Course Code: CS1141
Course Name: C PROGRAMMING LAB
COURSE OUTCOMES:

CO1: Remember the basics of computer
CO2: Understand the structure of program writing
CO3: Apply control structures and pointers
CO4: Analyze user defined functions
CO5: Understand dynamic memory allocation
CO6: Understand string handling functions

Course Code:CS1133
Course Name: DIGITAL ELECTRONICS LAB
COURSE OUTCOMES:
CO1: Remember the basic concepts of electronics
CO2: Familiarise the concept of different number systems
CO3: Understanding the properties of logic gates
CO4: Apply different techniques and theorems to simplify the sop forms
CO5: Analyse the characteristics of different combinational logic circuits.

Semester 2
Course Code : CS1221
Course Name: ENVIRONMENTAL STUDIES
COURSE OUTCOMES
CO1: Understand environmental systems
CO2: Understand the biodiversity and conservation concepts
CO3: Remember concepts of biodiversity and conservations
CO4: Understand natural systems and resources
CO5: Apply pollution management techniques

Course Code: CS1241
Course Name: DATA STRUCTURES
COURSE OUTCOMES:
CO1: Remember purpose of Data Structures
CO2: Understand different Data Structures
CO3: Apply programming languages
CO4: Analyze working of different data structures
CO5: Evaluate expressions
CO6: Create different Data Structures

Course Code :CS1242
Course Name: COMPUTER ARCHITECTURE AND MICROPROCESSORS
COURSE OUTCOMES:
CO1: Remember the basic concepts of computers.
CO2: Understand the functional units of a standard PC and its working.
CO3: Understand the architectural features of 8086 processor.
CO4: Create assembly language programs for 8086 processor.
CO5: Apply the tools debug, TASM/ MASM.

Course Code : EN 1211.4
Subject Name : English for Career
COURSE OUTCOME
CO 01: Acquire the necessary language skills required in the competitive job market.
CO 02: Acquire the cognitive, logical, analytical and verbal skills necessary to succeed in competitive examinations
CO 03: Become familiar with the pattern of questions usually asked in the competitive examinations
CO 04: Get sufficient practice in Vocabulary, Grammar, Comprehension and Remedial English
CO 05: Be able to prepare for and be successful in competitive examinations.

Course Name: DISCRETE MATHEMATICS
Course Code: MM1231.10
COURSE OUTCOMES
CO 01: Ability to apply propositional logic to solve problem
CO 02: Ability to apply predicate logic to solve problem
CO 03: Ability to apply the concept of set theory
CO 04: Able to formulate problems and solve recurrence relations

Course Code:CS1243
Course name: DATA STRUCTURES LAB
COURSE OUTCOMES:
CO1: Remember purpose of Data Structures
CO2: Understand different Data Structures
CO3: Apply programming languages
CO4: Analyze working of different data structures
CO5: Evaluate expressions
CO6: Create different Data Structures

CS1244 : ASSEMBLY LANGUAGE PROGRAMMING LAB
COURSE OUTCOMES:
CO1: Remember the basic concepts of computers.
CO2: Understand the functional units of a standard PC and its working.
CO3: Understand the architectural features of 8086 processor.
CO4: Create assembly language programs for 8086 processor.
CO5: Apply the tools debug, TASM/ MASM.

Semester 3
CS1341: PROGRAMMING IN JAVA
COURSE OUTCOMES:
CO1: Understand the java programming and oops concepts.
CO2: Understand the concepts of Interface, exception handling, threading, and package
CO3: Understand the basic concepts of Applet, Networking.
CO4: Idea to approach and use a new package.
CS1342: SOFTWARE ENGINEERING
COURSE OUTCOMES:

CO1 Understand the importance of having a process for software development.
CO2 Familiarize with various software testing techniques and tools.
CO3 Apply various models in the software development projects.
CO4 Analyze the process of software development

CS1343: OPERATING SYSTEMS
COURSE OUTCOMES:
CO1 Understand working of various Operating Systems
CO2 Apply constrained resource allocation, process scheduling and memory management techniques
CO3 Evaluate synchronization of processes and protection of an Operating System
CO4 Analyze salient features available to various Operating Systems

CS1344: DATABASE MANAGEMENT SYSTEMS
COURSE OUTCOMES:
CO1 Understand the concept of database.
CO2 Develop skills to design an ER diagram.
CO3 Create database using SQL and perform operations in SQL.
CO4 Familiarize the management of concurrent transactions.
CO5 Apply the design concepts and normalization in database easily.

CS1345 : DESIGN AND ANALYSIS OF ALGORITHMS
COURSE OUTCOMES:
CO1. Develop and analyze new algorithms.
CO2. Analyze the complexity of algorithms
CO3. Understand good algorithms among multiple solutions for a problem.
CO4. Have better knowledge on fundamental strategies of algorithm design and awareness on algorithm design strategies
CO5. Implement some typical algorithms

CS1346: JAVA PROGRAMMING LAB
COURSE OUTCOMES:
CO1: Understand the java programming and oops concepts.
CO2: Understand the concepts of Interface, exception handling, threading, and package
CO3: Understand the basic concepts of Applet, Networking.
CO4: Idea to approach and use a new package.

CS1347 : DBMS Lab
COURSE OUTCOMES:
CO1 Understand the concept of database.
CO2 Develop skills to design an ER diagram.
CO3 Create database using SQL and perform operations in SQL.
CO4 Familiarize the management of concurrent transactions.
CO5 Apply the design concepts and normalization in database easily.
Semester 4
CS1441 : SYSTEM SOFTWARE

COURSE OUTCOMES:
CO1 Understand different System Software.
CO2 Analyze SIC machine architecture with its instruction sets and capable to do programing. Illustrate machine dependent, independent assemblers and macro processors.
CO3 Remember the functions of loaders, linkers and illustrate machine dependent loaders and independent loaders.
CO4 Understand the functions of compilers and illustrate the machine dependent and independent compilers.

CS1442 : WEB PROGRAMMING AND PHP
COURSE OUTCOMES:
CO1 Understand the basic skills in moderately complex use of the following tools/scripts/languages: HTML, DHTML, CSS, Javascript.
CO2 Apply the appropriate web tools/languages for creating state-of-the art websites
CO3 Understand the current trends and styles in web design and applications
CO4 Apply PHP in web designing

CS1443 :COMPUTER NETWORKS AND SECURITY
COURSE OUTCOMES:
CO1 Remember various network technologies, design issues and characteristics
CO2 Understand the purpose of computer networks and the basic issues in information security
CO3 Apply the use of layer architecture for networking systems, information security measures
CO4 Analyze the concept of different models of network and the working of various ciphers
CO5 Evaluate data link controls and Information Security policies
CO6 Create awareness on different networking protocols and information security policies

CS1444: COMPUTER GRAPHICS
COURSE OUTCOMES:
CO1 Compare various graphics devices
CO2 Apply various transformations to 2D and 3D graphics objects
CO3 Analyze algorithms for clipping
CO4 Classify various projections of 3D objects
CO5 Explain current trends in computer graphics

CS1445: MINOR PROJECT
COURSE OUTCOMES:
CO1 Plan and Estimate a Project
CO2 Design and Analysis of a Problem
CO3 Coding / Implementation of a Software

CS1446: COMPUTER GRAPHICS LAB
COURSE OUTCOMES:
CO1 Compare various graphics devices
CO2 Apply various transformations to 2D and 3D graphics objects
CO3 Analyze algorithms for clipping
CO4 Classify various projections of 3D objects
CO5 Explain current trends in computer graphics

CS1447: WEB PROGRAMMING AND PHP LAB
COURSE OUTCOMES:
CO1 Understand the basic skills in moderately complex use of the following tools/scripts/languages: HTML, DHTML, CSS, Javascript.
CO2 Apply the appropriate web tools/languages for creating state-of-the art websites
CO3 Understand the current trends and styles in web design and applications
CO4 Apply PHP in web designing

Semester 5
CS1541: PYTHON PROGRAMMING
COURSE OUTCOMES:
CO1 Remember the concepts of python programming
UC O 2 Understand data types and differences
CO3 Apply CGI programming
CO4 Analyze the concepts of database programming in python
CO5 Evaluate the usage of Python package installer PIP
CO6 Create programs using libraries such as Flask, SQL Alchemy, Pandas, Numpy etc.

CS1542 : ARTIFICIAL INTELLIGENCE
COURSE OUTCOMES:
CO1 Remember features of AI and knowledge-based systems
CO2 Understand basic parsing techniques
CO3 Apply search and control strategies
CO4 Understand expert systems
CO5 Evaluate the performance of various searching algorithms
CO6 Evaluate different knowledge representation schemes

CS1543 : FREE AND OPEN SOURCE SOFTWARES (FOSS)
COURSE OUTCOMES:
CO1 Remember FOSS concepts, features
CO2 Understand Linux OS
CO3 Apply shell programming
CO4 Analyze various Linux commands
CO5 Evaluate conditional and looping statements
CO6 Create user defined function
OPEN COURSES
CS1551.1 : DIGITAL MARKETING
COURSE OUTCOMES:
CO1 Understand different digital marketing types
CO2 Understand the main concepts and key technologies of digital marketing.
CO3 Remember the concept of e-banking, cyber security
CO4 Analyze the evolution of digital marketing from the existing technologies.
CO5 Analyze services using digital marketing
CS 1551.2 : INTERNET AND WWW

COURSE OUTCOMES:
CO1 To **understand** the basic concepts of Networks.
CO2 To **learn** the working of Internet.
CO3 To **analyse** different search engines and its working
CO4 To **familiarise** Network Protocols and WWW.

CS 1551.3 : IMPACT OF SOCIAL MEDIA NETWORKS
COURSE OUTCOMES:
CO1 To understand the types of social media networks and its uses.
CO2 To learn the impact of social media on society& commerce
CO3 To analyse the impact of social media on work, training & development and on relationships
CO4 To familiarize challenges of social media in terms of privacy, security & Health

ELECTIVES
CS 1561.1: OBJECT ORIENTED ANALYSIS AND DESIGN
COURSE OUTCOME:
CO1 **Remember** object oriented features
CO2 **Understand** Object Oriented System Development
CO3 **Apply** Unified Approach
CO4 **Analyze** various UML diagrams
CO5 **Evaluate** objects static and dynamic model
CO6 **Create** UML diagrams for any system

CS 1561.2 :EMBEDDED SYSTEMS
COURSE OUTCOMES:
CO1 To understand the basic concepts of Embedded System.
CO2 To familiar with the architecture of Embedded System.
CO3 To understand the Embedded Operating system and Programming languages.
CO4 To analyze the process of Embedded Software Development process.
CO5 To familiarize the various applications of Embedded System.

CS 1561.3 : CLOUD COMPUTING
COURSE OUTCOMES:
CO1 Remember the basics of cloud computing
CO2 Understand the main concepts and key technologies of cloud computing.
CO3 Apply the concept of virtualization in the cloud computing
CO4 Analyze the evolution of cloud from the existing technologies.
CO5 Evaluate and choose the technologies for implementation and use of cloud.
CO6 Create services using cloud computing

CS1544 : PYTHON PROGRAMMING LAB
COURSE OUTCOMES:
CO1 Remember the concepts of python programming
UC O 2 Understand data types and differences
CO3 Apply CGI programming
CO4 Analyze the concepts of database programming in python

CO5 Evaluate the usage of Python package installer PIP
CO6 Create programs using libraries such as Flask, SQL Alchemy, Pandas, Numpy etc..

CS 1545 : FREE and OPEN SOURCE SOFTWARE (FOSS) LAB
COURSE OUTCOMES:
CO1 Remember FOSS concepts, features
CO2 Understand Linux OS
CO3 Apply shell programming
CO4 Analyze various Linux commands
CO5 Evaluate conditional and looping statements
CO6 Create user defined function

Semester 6
CS1641 : DATA ANALYTICS
COURSE OUTCOMES:
CO1 Remember purpose of data analytics
CO2 Understand the principles and tools of data analytics
CO3 Apply different analytical theories and methods
CO4 Analyze text data

CS1642 :Internet of Things (IoT)
COURSE OUTCOMES:
CO1 **Remember** the purpose of computer networks and its developments
CO2 **nderstand** various network technologies, design issues and characteristics
CO3 **Apply** the use of layer architecture for networking systems
CO4 **Analyze** the working of different models of network and data
CO5 **E**co**v**m**al**m**ua**u**t**ne**i cdaattiao nli nk controls
CO6 **Create** different networking protocols

CS1643 : CYBER SECURITY
COURSE OUTCOMES:
CO1 Understand the features, development and use of information systems
CO2 Identify the various types of information system risks, threats and pitfalls.
CO3 Analyze the security approaches applied.
CO4 Compare the approaches in the context of bnachieving security goals.
CO5 Create awareness about cyber laws and cybercrimes and cyber ethics.
ELECTIVES
CS1661.1 : MACHINE LEARNING
COURSE OUTCOMES: CO1 Remember applications of machine learning
CO2 Understand different learning techniques
CO3 Apply clustering of raw data
CO4 Analyse the performance of classification methods
CO5 Evaluate hierarchical methods
CO6 Create a semi supervised learning model
CS1661.2 : BLOCKCHAIN TECHNOLOGY
COURSE OUTCOMES :

CO1 **Understand** the concepts behind Blockchain technology
CO2 **Analyze** the challenges in practical uses
CO3 **Evaluate** the various implementation criteria
CO4 **Remember** the new components of Blockchain technology

CS1661.3 : DIGITAL MARKETING

COURSE OUTCOMES:

CO1 Understand different digital marketing types
CO2 Understand the main concepts and key technologies of digital marketing.
CO3 Remember the concept of e-banking, cyber security
CO4 Analyze the evolution of digital marketing from the existing technologies.
CO5 Analyze services using digital marketing

CS1644: MAJOR PROJECT

COURSE OUTCOMES:

CO1: CREATE an industry-standard project through a real-life project work under time and deliverable constraints, applying the knowledge acquired through various courses.
CO2: To provide an opportunity to apply the knowledge gained through various courses in solving a real life problem
CO3: To provide an opportunity to practice different phases of software/system development lifecycle
CO4 : To introduce the student to a professional environment and/or style typical of a global IT industry
CO5 : To provide an opportunity for structured team work and project management
CO6 : To provide an opportunity for effective, real-life, technical documentation
CO7 : To provide an opportunity to practice time, resource and person Management

SCHEME 2018

SEMESTER ONE

CS1121: COMPUTER FUNDAMENTALS AND ORGANIZATION

COURSE OUTCOMES:

CO1: To get the functional knowledge about PC hardware, operations and concepts.
CO2: To understand the functional units of a standard PC and it's working.
CO3: To understand the memory organization in a computer.

CS1131: DIGITAL ELECTRONICS

COURSE OUTCOMES:

CO1: To review basic electronic concepts
CO2: To review data representation techniques
CO3: To introduce student to basic concepts of digital logic
CO4: To introduce the design of basic logical circuits.

CS1141: INTRODUCTION TO PROGRAMMING

COURSE OUTCOMES:

CO1: To expose students to algorithmic thinking and algorithmic representations.
CO2: To introduce students to basic data types and control structures in C.

CO3: To introduce students to structured programming concepts.
CO4: To introduce students to standard library functions in C language.

CS1142: C PROGRAMMING LAB
COURSE OUTCOMES:
CO1: To expose students to algorithmic thinking and algorithmic representations.
CO2: To introduce students to basic data types and control structures in C.
CO3: To introduce students to structured programming concepts.
CO4: To introduce students to standard library functions in C language.

CS1132: DIGITAL ELECTRONICS LAB
COURSE OUTCOMES:
CO1: To review basic electronic concepts
CO2: To review data representation techniques
CO3: To introduce student to basic concepts of digital logic
CO4: To introduce the design of basic logical circuits.

SEMESTER TWO
CS1221: ENVIRONMENTAL STUDIES
COURSE OUTCOMES:
CO1:To impart the knowledge on the environmental systems
CO2:To impart the knowledge on the biodiversity and conservations
CO3:To impart the knowledge on the environmental pollution and policies and practices
CO4:To impart the knowledge on the impact of human communities on the environments

CS1241: DATA STRUCTURES IN C
COURSE OUTCOMES:
CO1: Be able to write well-structured programs in C
CO2: Be familiar with data structures like array, structures, lists, stacks, queues, trees and graphs
CO3: Able to appreciate various searching and sorting strategies
CS1242: WEB PROGRAMMING
COURSE OUTCOMES:
CO1:To impart basic skills in moderately complex use of the following tools/scripts/languages: HTML, DHTML, Perl, CSS, Javascript.
CO2: To impart necessary ability to choose the appropriate web tools/languages for creating state-of-the art websites
CO3: To Expose students to current trends and styles in web design and applications
CS1243: DATA STRUCTURES LAB
COURSE OUTCOMES:
CO1: Be able to write well-structured programs in C
CO2: Be familiar with data structures like array, structures, lists, stacks, queues, trees and graphs
CO3: Able to appreciate various searching and sorting strategies
CS1244: WEB PROGRAMMING LAB
COURSE OUTCOMES:
CO1:To impart basic skills in moderately complex use of the following tools/scripts/languages: HTML, DHTML, Perl, CSS, Javascript.

CO2: To impart necessary ability to choose the appropriate web tools/languages for creating state-of-the art websites
CO3: To Expose students to current trends and styles in web design and applications

SEMESTER THREE

CS1341: PROGRAMMING IN JAVA

COURSE OUTCOMES:

CO1: Let students install and work with JDK, also make them aware the use of java doc.
CO2: Practice basic data types, operators and control structures in Java
CO3: Practice basic handling of classes and objects in Java
CO4: Introduce the following selected APIs: I/O, Strings, Threads, AWT, Applet, Networking
CO5: Idea to approach and use a new package

CS1342: SOFTWARE ENGINEERING

COURSE OUTCOMES:

CO1: Understand the importance of basic processes in software Development life cycle.
CO2: Understand the various activities incorporate with different models and know their significance.
CO3: Familiarize the requirements in engineering and systematic approach in classical software design and development techniques.
CO4: Familiarize with various software testing techniques and tools.

CS1343: OPERATING SYSTEMS

COURSE OUTCOMES:

CO1: Fundamental concepts of systems software and functions of operating systems as a resource manager
CO2: Strategies for constrained resource allocation and process scheduling
CO3: Memory and I/O Management techniques
CO4: Salient features of popular operating systems.

CS1344: VALUE EDUCATION

COURSE OUTCOMES:

CO1: To explore the idea on national integration and importance humanitarian values on national calamities like disaster management.
CO2: To impart knowledge on the importance of organ donation and social welfares

CS1345: DATABASE MANAGEMENT SYSTEMS

COURSE OUTCOMES:

CO1: Be aware of basic concepts of data bases and data base management systems
CO2: Be aware of concepts of relational data bases.
CO3: Know to normalize relational data bases
CO4: Skilled in using relational algebra and relational calculus
CO5: Develop skills to write database queries

CS1346: JAVA PROGRAMMING LAB

COURSE OUTCOMES:

CO1: Let students install and work with JDK, also make them aware the use of java doc.
CO2: Practice basic data types, operators and control structures in Java
CO3: Practice basic handling of classes and objects in Java

CO4: Introduce the following selected APIs: I/O, Strings, Threads, AWT, Applet, Networking
CO5: Idea to approach and use a new package

CS1347: DBMS LAB
COURSE OUTCOMES:
CO1: Be aware of basic concepts of data bases and data base management systems
CO2: Be aware of concepts of relational data bases.
CO3: Know to normalize relational data bases
CO4: Skilled in using relational algebra and relational calculus
CO5: Develop skills to write database queries

SEMESTER FOUR
CS1441: DESIGN AND ANALYSIS OF ALGORITHMS
COURSE OUTCOMES:
CO1: Be able to analyze the complexity of algorithms
CO2: Be able to select good algorithms from among multiple solutions for a problem
CO3: Have better knowledge on fundamental strategies of algorithm design and awareness on complex algorithm design strategies
CO4: Implement some typical algorithms
CS1442: MICROPROCESSORS & PROGRAMMING
COURSE OUTCOMES:
CO1: Appreciate architectural features of x86 family of processors
CO2: Read and write moderately complex assembly programs for 8086 processor
CO3: Use the tools debug, TASM/MASM, Unix/Linux Code view
CO4: Use assembly routines in C/C++
CS1443: COMPUTER NETWORKS AND SECURITY
COURSE OUTCOMES:
CO1: The basic transmission technologies and characteristics
CO2: The use of layer architecture for networking systems
CO3: The main design issues of transport protocols and the mechanism to control traffic flow and congestion.
CO4: The concept of Information security policies
CS1444: PHP AND MYSQL
COURSE OUTCOMES:
CO1:To impart basic skills in moderately complex use of the following tools/ scripts/ languages:
CO2: To choose the appropriate web tools/languages for creating state-of-the art web sites
CO3: To expose students to current trends and styles in web design and applications
CS1445: MINOR PROJECT
COURSE OUTCOMES:
CO1:To provide an opportunity for structured team work and project management.
CO2: To provide an opportunity to practice the various phases in the Software Development Life cycle
CO3: To introduce the prospect of effective technical documentation and presentation.
CO4: To provide an opportunity to practice time, resource and person management
CS1446: ASSEMBLY LANGUAGE PROGRAMMING LAB
COURSE OUTCOMES:

CO1: Appreciate architectural features of x86 family of processors
CO2: Read and write moderately complex assembly programs for 8086 processor
CO3: Use the tools debug, TASM/MASM, Unix/Linux Code view
CO4: Use assembly routines in C/C++

CS1447: PHP LAB

COURSE OUTCOMES:

CO1:To impart basic skills in moderately complex use of the following tools/ scripts/ languages:
CO2: To choose the appropriate web tools/languages for creating state-of-the art web sites
CO3: To expose students to current trends and styles in web design and applications

SEMESTER FIVE

CS1541: COMPUTER GRAPHICS

COURSE OUTCOMES:

CO1: handle basic graphic primitives in C/C++ for developing 2D and 3D graphics
CO2: program basic scan-conversion algorithms
CO3: apply various transformations to 2D and 3D graphic objects
CO4: derive various projections of 3D objects
CO5: give realistic rendering to 3D wireframe objects
CO6: be familiar with current trends in computer graphics

CS1542: SYSTEM SOFTWARE

COURSE OUTCOMES:

CO1: Explain the internal working of the system
CO2: Discuss the principles of assemblers and narrate the working of loaders and linkers
CO3: Discuss system development tools

CS1543: PYTHON PROGRAMMING

COURSE OUTCOMES:

CO1: Understand the concepts of python programming
CO2: Create new GUI based programming to solve industry standard problems

CS1551 OPEN COURSE

CS1551.1 DIGITAL MARKETING

COURSE OUTCOMES:

CO1:To familiarize students with Digital marketing function in organizations.
CO2: To understand different modes of payments, beware of security and legal issues in digital Marketing

CS1551.2 INTERNET AND WWW

COURSE OUTCOMES:

CO1:To understand the basic concepts of Networks.
CO2: To learn the working of Internet.
CO3: Exposure to Network Protocols and WWW.

CS1551.3 CYBER SECURITY
COURSE OUTCOMES:
CO1: Understand high-level overview of information security principles.
CO2: Understand different roles and responsibilities of security professionals
CO3: Understand cryptography and information system risk management.
CO4: Be aware of multiple security control families as well as benefits of each control family

CS1561 ELECTIVE
CS 1561.1 MULTIMEDIA SYSTEMS
COURSE OUTCOMES:
CO1: Familiar with features of text, audio, images, video and active contents
CO2: Familiar with the file formats for the above elements
CO3: Aware of various application softwares used to process the above elements
CO4: Aware of various applications of multimedia
CS1561.2. MOBILE COMPUTING
COURSE OUTCOMES:
CO1:To understand the basic concepts of Mobile Computing.
CO2: To learn the basics of mobile telecommunication
CO3: Exposure to Ad-Hoc networks
CS1561.3. TRENDS IN COMPUTING
COURSE OUTCOMES:
CO1:To introduce the broad perceptive of cloud architecture& model
CO2: To explore the fundamental concepts of big data analytics
CO3: To introduce basics of edge computing and application
CO4: How problems solved using soft computing
CS1544: COMPUTER GRAPHICS LAB
COURSE OUTCOMES:
CO1: handle basic graphic primitives in C/C++ for developing 2D and 3D graphics
CO2: program basic scan-conversion algorithms
CO3: apply various transformations to 2D and 3D graphic objects
CO4: derive various projections of 3D objects
CO5: give realistic rendering to 3D wireframe objects
CO6: be familiar with current trends in computer graphics
CS1545: PYTHON PROGRAMMING LAB
COURSE OUTCOMES:
CO1: Understand the concepts of python programming
CO2: Create new GUI based programming to solve industry standard problems
SEMESTER SIX
CS1641:Data Mining & Warehousing
COURSE OUTCOMES:
CO1:To get an understanding of the general properties of data in large databases
CO2: Understand a variety of real-world applications that require data mining
CO3: How to discover useful patterns and associations in huge quantities of data

CS1642: INTERNET OF THINGS
COURSE OUTCOMES:
CO1: To get a deep dive into IoT network engineering, from smart objects and the network that connects them to applications, data analytics, and security.
CO2: To guide through the different types of smart objects, from those that simply record information to those that are programmed to perform actions in response to changes.
CO3: To guide through the different common application protocols to generic and web-based protocols.
CO4: To get basic knowledge about the security practices for IT and OT and details how security is applied to an IoT environment.

CS1643: ARTIFICIAL INTELLIGENCE
COURSE OUTCOMES:
CO1:To introduce the notion of machine intelligence.
CO2: To introduce the Symbolic processing paradigm of AI.
CO3: To introduce Knowledge representation formalism.
CO4: To introduce basic concepts and challenges of Speech and Language Processing.
CO5: To introduce basic concepts and challenges of Expert Systems.

CS 1661: ELECTIVES
CS1661.1 GEOGRAPHICAL INFORMATION SYSTEMS
COURSE OUTCOMES:
CO1: Understand spatial data and principles of relational database model
CO2: An overview of the process of creating an integrated GIS
CO3: Use of GIS in decision making

CS1661.2 SOFTWARE TESTING
COURSE OUTCOMES:
CO1:Discuss the basic concept of testing
CO2: Explain the different types of testing
CO3: Describe the tools used for testing

CS1661.3 FREE AND OPEN SOURCE SOFTWARE
COURSE OUTCOMES:
CO1: Explain the features of free & open source software
CO2: Familiarization with LINUX
CO3: Work with PHP
CO4: Demonstrate the working of MySQL

CS1644: MAJOR PROJECT
COURSE OUTCOMES:
CO1: To provide an opportunity to apply the knowledge gained through various courses in solving a real life problem
CO2: To provide an opportunity to practice different phases of software/system development life cycle

CO3: To introduce the student to a professional environment and/or style typical of a global IT industry
CO4: To provide an opportunity for structured team work and project management
CO5: To provide an opportunity for effective, real-life, technical documentation
CO6: To provide an opportunity to practice time, resource and person management.