

Subject Name	Description
Programming Paradigms	Able to apply and develop in-depth knowledge of functional, logic, and object-oriented programming paradigms. Understand design/implementation issues involved with variable allocation and binding, control flow, data types, subroutines, parameter passing etc.
Advanced Data Structures & Algorithms	Able to apply and develop in-depth knowledge of functional, logic, and object-oriented programming paradigms. Understand design/implementation issues involved with variable allocation and binding, control flow, data types, subroutines, parameter passing etc.
Mathematical Concepts for Computer Science	Able to apply knowledge of Statistics to solve various problems & mathematical concepts such as sets, relations, functions etc. Also describes the language accepted by automata or generated by a regular expression or a context-free grammar.
Advanced Operating Systems	Able to understand the difference between different types of Advanced operating systems, virtual machines and their structure of implementation and applications. The main focus is on UNIX File system including advanced file processing and practice pipelining and I/O redirecting.
Advanced Computer Architecture	To have a detailed knowledge of the Advanced structure and operation of a digital computer & discuss in detail the operation of the arithmetic unit including the algorithms & implementation of fixed-point and floating-point addition, subtraction, multiplication & division.
Programming Paradigms Lab	Students will be able to work practically over various programming paradigms like imperative, object-oriented, functional and logical.
Advanced Data Structures Lab	It helps to apply various data structures like array, linked list, stack, queue, trees and graphs in projects.
Elective –IV(A) Mobile Computing	Discuss the characteristics and attributes of mobile computing and m-commerce & Describe the drivers of mobile computing. Understand the technologies that support mobile computing & Describe wireless standards and transmission networks.
Elective –IV(B) E-commerce & ERP	Help to understand why information systems are so important today for business and management & Evaluate the role of the major types of information systems in a business environment and their relationship to each other & Assess the impact of the Internet and Internet technology on business electronic commerce and electronic business.
Elective –IV(C) Advanced Java	It describes the high level concepts of java Programming which includes Servlets, syntax, idioms, patterns, and styles and to become comfortable with object oriented programming & also to write programs using object-based techniques including classes, objects and inheritance. To

	develop applets & to create java server pages.
Elective-V (A) Ad Hoc Networks	Able to understand the routing concept of mobile Ad Hoc network & also to understand the reliable and unreliable communication in mobile ad hoc network. Creates the security mechanism for mobile Ad Hoc network & understand the solutions to improve the quality of service in mobile Ad Hoc network.
Elective –V(B) Network Programming	The goal is to introduce the basics of computer networks and internet programming. Also describes the multi-tier application development and RPC technologies including: RMI, CORBA, EJB, and Web Services.
Elective –V(C) Neural Networks	It provides a comprehensive foundation to Artificial Neural Networks and Machine Learning with applications to Pattern Recognition and Data Mining. Learning processes: supervised and unsupervised, deterministic and statistical. Clustering, Least-Mean-square, back propagation.
Elective –Vi(A) Network Security & Cryptography	Identify factors driving the need for network security & types of attacks. Compare and contrast symmetric and asymmetric encryption systems and their vulnerability to attack.F
Elective- Vi(B) Digital Signal Processing	It introduces the basic concepts and techniques for processing signals on a computer. It covers digital filter design, transform-domain processing and importance of Signal Processors.
Elective –V(C) Embedded Systems	It describes the differences between the general computing system and the embedded system. Also recognize the classification of embedded systems. It became aware of interrupts, hyper threading and software optimization.
Network Programming Lab	It enables to use network programming concepts to develop and implement distributed applications, to develop and implement next generation protocols required for emerging applications models and evaluate performance of networking systems.
Project	Student will undergo a research oriented project in a particular research area which will help them for performing further research activities.