

M.Tech 1st Semester CSE

Slno	Course	Course Outcomes	
1	COMPUTATIONAL METHODS AND TECHNIQUES	CO1	Solve a set of algebraic equations representing steady state models formed in engineering problems
		CO2	Apply optimization techniques to real life problems.
		CO3	Predict the system dynamic behavior through solution of ODEs modeling the system
		CO4	Solve PDE models representing spatial and temporal variations in physical systems through numerical methods
		CO5	Acquire and use knowledge of genetic algorithm to optimize real life problems.
		CO6	Learn and apply fuzzy logic & neural network prediction algorithm to solve engineering problems
2	INTERNET OF THINGS	CO1	Understand the concepts of Internet of Things
		CO2	Apply the concepts of IOT
		CO3	Apply IOT to different applications
		CO4	Analysis and evaluate protocols used in IOT
		CO5	Design and develop smart city in IOT
		CO6	Analysis and evaluate the data received through sensors in IOT
3	ADVANCED COMPUTER ARCHITECTURE	CO1	Demonstrate concepts of parallelism in hardware/software
		CO2	Discuss memory organization and mapping techniques.
		CO3	Describe architectural features of advanced processors.
		CO4	Interpret performance of different pipelined processors.
		CO5	Explain data flow in arithmetic algorithms
		CO6	Development of software to solve computationally intensive problems.
4	ADVANCED DATA STRUCTURE AND ALGORITHM	CO1	Analyze the asymptotic performance of algorithms.
		CO2	Write rigorous correctness proofs for algorithms.
		CO3	Choose appropriate data structures and algorithms, understand the ADT/libraries, and use it to design algorithms for a specific problem.
		CO4	Understand the necessary mathematical abstraction to solve problems.

		CO5	Come up with analysis of efficiency and proofs of correctness
		CO6	Comprehend and select algorithm design approaches in a problem specific manner.
5	ADVANCED OPERATING SYSTEM	CO1	Describe and explain the fundamental components of a computer operating system.
		CO2	Define, restate, discuss, and explain the policies for scheduling, deadlocks, memory management, synchronization, system calls, and file systems.
		CO3	Describe and extrapolate the interactions among the various components of computing systems.
		CO4	Design and construct the following OS components: System calls, Schedulers, Memory management systems, Virtual Memory and Paging systems.
		CO5	Illustrate, construct, compose and design solutions via C/C++ programs, and through NACHOS.
		CO6	Measure, evaluate, and compare OS components through instrumentation for performance analysis.

M.Tech 2nd Semester CSE

Slno	Course	Course Outcomes	
1	Computer Graphics	CO1	Understand the basics of computer graphics, different graphics systems and applications of computer graphics.
		CO2	Discuss various algorithms for scan conversion and filling of basic objects and their comparative analysis
		CO3	Use of geometric transformations on graphics objects and their application in composite form
		CO4	Extract scene with different clipping methods and its transformation to graphics display device.
		CO5	Explore projections and visible surface detection techniques for display of 3D scene on 2D screen
		CO6	Render projected objects to naturalize the scene in 2D view and use of illumination models for this.
2	Software Engineering	CO1	Apply software engineering principles and techniques and develop, maintain and evaluate large-scale software systems.
		CO2	Produce efficient, reliable, robust and cost-effective software solutions.

		CO3	Communicate and coordinate competently by listening, speaking, reading and writing english for technical and general purposes.
		CO4	Work as an effective member or leader of software engineering teams.
		CO5	Manage time, processes and resources effectively by prioritising competing demands to achieve personal and team goals Identify and analyzes the common threats in each domain.
		CO6	Understand and meet ethical standards and legal responsibilities.
3	Fast Machine Learning	CO1	understanding of the fundamental issues and challenges of machine learning
		CO2	Identify data,model selection and model complexity.
		CO3	Describe the strengths and weaknesses of many popular machine learning approaches.
		CO4	Discuss the underlying mathematical relationships within and across Machine Learning algorithms
		CO5	Apply the paradigms of supervised and un-supervised learning in various problem domain.
		CO6	Design and implement various machine learning algorithms in a range of real-world applications
4	Cloud Computing	CO1	Articulate the main concepts, key technologies, strengths, and limitations of cloud computing and the possible applications for state-of-the-art cloud computing
		CO2	Identify the architecture and infrastructure of cloud computing, including SaaS, PaaS, IaaS, public cloud, private cloud, hybrid cloud, etc.
		CO3	Choose the appropriate technologies, algorithms, and approaches for the related issues.
		CO4	Identify problems, and explain, analyze, and evaluate various cloud computing solutions.
		CO5	Explain the core issues of cloud computing such as security, privacy, and interoperability.
		CO6	Provide the appropriate cloud computing solutions and recommendations according to the applications used.
5	Big Data Analytic	CO1	Identify the characteristics of datasets and compare the trivial data and big data for various applications.
		CO2	Select and implement machine learning techniques and computing environment that are suitable for the applications under consideration.

		CO3	Solve problems associated with batch learning and online learning, and the big data characteristics such as high dimensionality, dynamically growing data and in particular scalability issues.
		CO4	Apply scaling up machine learning techniques and associated computing techniques and technologies.
		CO5	Recognize and implement various ways of selecting suitable model parameters for different machine learning techniques.
		CO6	Integrate machine learning libraries and mathematical and statistical tools with modern technologies like hadoop and mapreduce.

M.Tech 3rd Semester

Slno	Course	Course Outcomes	
1	Reserach Methodology	CO1	Develop understanding on various kinds of research, objectives of doing research, research process, research designs and sampling.
		CO2	Understand qualitative research techniques
		CO3	Discuss the issues and concepts salient to the research process
		CO4	Design complex issues inherent in selecting a research problem, selecting an appropriate research design, and implementing a research project.
		CO5	Apply measurement & scaling techniques as well as the quantitative data analysis for a research problem
		CO6	Implement hypothesis testing procedures
2	Intellectual Property Rights	CO1	Identify different types of Intellectual Properties (IPs), the right of ownership, scope of protection as well as the ways to create and to extract value from IP.
		CO2	Recognize the crucial role of IP in organizations of different industrial sectors for the purposes of product and technology development.
		CO3	Identify activities and constitute IP infringements and the remedies available to the IP owner and describe the precautions steps to be taken to prevent infringement of proprietary rights in products and technology development.

		CO4	Describe the processes of Intellectual Property Management (IPM) and various approaches for IPM and conducting IP and IPM auditing and explain how IP can be managed as a strategic resource and suggest IPM strategy.
		CO5	Anticipate and subject to critical analysis arguments relating to the development and reform of intellectual property right institutions and their likely impact on creativity and innovation.
		CO6	Demonstrate a capacity to identify, apply and assess ownership rights and marketing protection under intellectual property law as applicable to information, ideas, new products and product marketing