Course Outcome (CO)

M.TECH in Computer science and engineering

SEMESTER 1

07CS 6101 ADVANCED SOFTWARE ENGINEERING	
CO1	Students will be familiar with software industry processes.
CO2	They learn importance and various techniques for estimation.
CO3	Students get to know the different metrics and its use in estimation.
CO4	Students get a practical experience using and familiarizing software engineering tools.
07CS 6103 ALGORITHMS AND COMPLEXITY	
CO1	This course empowers students with problem analysis skills, students also gain expertise for the design
CO2	Development of algorithm for computing problems, and enables the students to model a complex problem using mathematical techniques.
07CS 6105 TOPICS IN DATABASE SYSTEMS AND DESIGN	
CO1	Design database system using ER modelling
CO2	Understand the relational model by relational algebra
CO3	Able to apply principle of database design for creating good databases
CO4	Understand the significance of data mining for doing research in that area
CO5	Extract information from relational database using SQL
CO6	Able to develop simple programs in PL/SQL
07CS 6107 ARTIFICIAL INTELLIGENCE	
CO1	Comprehend advanced AI related literature more clarity
CO2	Apply suitable AI techniques to solve real life problems.
CO3	Justify selection of techniques with proper theoretical arguments.
07 GN 6001 Research Methodology	
CO1	To Discuss research methodology concepts, research problems, research designs, thesis preparations, publications and research methods
CO2	To Analyse and evaluate research works and to formulate a research problem to pursue research
CO3	To Prepare a thesis or a technical paperand a present or publish them
CO4	To Apply the various research methods followed in engineering research for formulation and design of own research problems
07CS 6115 ADVANCED PROGRAMMING LAB	
CO1	To enable students for problem analysis skills
CO2	create interest in investigations of complex problems and to understand and apply Modern simulation tools.

SEMESTER 2

07 CE 6302 FINITE ELEMENT ANALYSIS	
CO 1	Understand the basics of FEM and the basic equations of elasticity
CO 2	Understand the direct stiffness method, coordinate transformation. Formulate the load vector. Formulation of matrix solution by Gauss elimination method
CO 3	Understand the approximation method and finite difference method for field problem analysis. Understand the importance of shape functions in FEM
CO 4	Summarize the FE procedure. Analyze frames
CO 5	Understand the analysis of triangular elements and isoparametric elements. Understand the principles of formulation of axisymmetric elements
CO 6	Understand the basic plate bending theories and shell theories. Introduction to FE software.
07CS 6102 ADVANCED COMPILER DESIGN	
CO1	Create lexical rules and grammars for a representative programming language.
CO2	Design a compiler for a concise programming language or a small subset of it.
CO3	Implement semantic rules into a parser that performs attribution while parsing
CO4	Implement simple code optimization techniques in the compiler backend.

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07CS 6104 ADVANCED PARALLEL COMPUTING	
CO1	Select the suitable parallel programming paradigm and justify using proper theoretical background
CO2	Apply suitable parallel programming environment for large scale tasks
CO3	Design and develop solutions for complex large scale tasks using parallel programming concepts
07CS 6106 MACHINE LEARNING AND LANGUAGE PROCESSING	
CO1	Comprehend Natural language processing concepts with more clarity.
CO2	Apply Suitable machine learning algorithms to solve NLP problems.
CO3	Justify selection of learning algorithms with proper theoretical arguments.
07CS 6108 DATA COMPRESSION	
CO1	Students shall be able to apply the knowledge of compression algorithm for different application areas and identify the features
07 CE 6308 Seminar I	
CO1	Assess the debating and self-learning capacity of students and enable them to compare and discriminate between ideas
CO2	Illustrate the ideas to the audience
CO3	Compose technical report
CO6	
07 CE 6312 Mini Project	
CO1	Students shall be able to apply their theoretical knowledge to develop a solution for real time problem.
CO2	This course empowers students with problem analysis skills, improve effective communication skills, and also inculcate lifelong learning skills.
07CS 6128 ADVANCED RESEARCH LAB	
CO1	To introduce students the concepts of parallel programming using CUDA and MPI
CO2	To experience implementation of machine learning techniques.
SEMESTER 3	
07CS 7101 WIRELESS COMMUNICATION TECHNIQUES	
CO1	To provide the students with the concepts of wireless communication technologies.
CO2	To impart various propagation methods, Channel models, capacity calculations multiple antennas and multiple user techniques
CO3	To enhance the understanding of emerging wireless communication technologies.
07CS 7103 ADVANCED MACHINE LEARNING	
CO1	Comprehend advance machine learning concepts with more clarity.
CO2	Apply Suitable machine learning algorithms to solve real life problems.
CO3	Justify selection of learning algorithms with proper theoretical arguments.
07 CE 7301 Seminar II	
CO1	Assess the debating and self-learning capacity of students and enable them to compare and discriminate between ideas
CO2	Illustrate the ideas to the audience
CO3	Compose technical report
07 CE 7303 Main Project Phase I	
CO1	To improve the professional competency and research aptitude by touching the areas which otherwise not covered by theory or laboratory classes
CO2	The project work aims to develop the work practice in students to apply acquired theoretical concepts and practical tools/techniques t
CO3	solve real life problems related to industry and current research.
SEMESTER 4	
07 CE 7302 Main Project Phase II	
CO1	To improve the professional competency and research aptitude by touching the areas which otherwise not covered by theory or laboratory classes
CO2	The project work aims to develop the work practice in students to apply theoretical concepts and practical tools/techniques to solve real life problems related industry and current research.

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