KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE
Warangal-506 015

Department of Computer Science and Engineering

M.Tech. (Software Engg.) Course Outcomes

I SEMESTER

P14SE101	DISCRETE MATHEMATICS & OPTIMIZATION TECHNIQUES	After completion of the course, the student will be able to
		CO1: Solve any type of LPP and discuss the nature of the solution.
		CO2: Solve a class of non-linear programming problems with different types of constraints and Find a maximal flow of commodities in a transport network using different methods
		CO3: Identify the importance of decision making systems and find an optimal solution of the problem given different types of nature of states.
		CO 4: Identify the differences between Crisp sets and Fuzzy sets and the related properties and Differentiate between Classical systems and Fuzzy systems in order to solve the problems based on Fuzzy logic

P14SE102	OBJECT ORIENTED SOFTWARE ENGINEERING	After completion of the course, the student will be able to
		CO1: model the systems effectively
		CO2: elicit the project requirements
		CO3: design the system in a simplified and understandable
		CO4: test the systems effectively using appropriate testing methods.

P14SE103	SOFTWARE REQUIREMENTS AND ESTIMATION	After completion of the course, the student will be able to
		CO1: model, analyze and measure the software artifacts
		CO2: analyze, specify and document software requirements for a software system
		CO3: verify, validate, assess and assure the quality of software artifacts
		CO4: understand the impact of computing solutions in a global and societal context

P14SE104	ADVANCED DATA STRUCTURES AND ALGORITHMS	After completion of the course, the student will be able to
		CO1: know various linear and non-linear data structures, their operations and applications
		CO2: analyze the performance of different algorithms in terms of space and time
		CO3: implement various sorting and searching algorithms efficiently
		CO4: select appropriate algorithm design method to solve a given real time problem

P14SE105A	**SECURE SOFTWARE ENGINEERING**	After completion of the course, the student will be able to
		CO1: understand the specification and design of secure software.
		CO2: develop secure software
		CO3: test security levels of an software
		CO4: managing secure software's

P14SE105B	**COMPONENT BASED SOFTWARE ENGINEERING**	After completion of the course, the student will be able to
		CO1: know essentials concepts component-based software engineering
		CO2: apply software engineering practices for component-based systems
		CO3: manage projects of component based software systems
		CO4: utilize the real-time component technologies in software building

P14SE105C	**SOFTWARE PROJECT MANAGEMENT**	After completion of the course, the student will be able to
		CO1: understand project management concepts and principles
		CO2: select the appropriate project development approach.
		CO3: perform costing and estimation of projects
		CO4: perform risk assessment of projects

P14SE105D	**SERVICE ORIENTED ARCHITECTURE**	After completion of the course, the student will be able to
		CO1: understand basic principles of service oriented architecture
		CO2: gain knowledge on web service specifications and standards
		CO3: build service oriented web applications
		CO4: apply service layers in developing web services

P14SE106A	**HUMAN COMPUTER INTERACTION**	After completion of the course, the student will be able to
		CO1: know the basics of human and computational abilities and limitations.
		CO2: understand basic theories, tools and techniques in HCI.
		CO3: learn the fundamental aspects of designing and evaluating interfaces.
		CO4: practice a variety of simple methods for evaluating the quality of a user interface and apply appropriate HCI techniques to design systems

P14SE106B	**ADVANCED OPERATING SYSTEMS**	After completion of the course, the student will be able to
		CO1: understand deadlocks and its recovery in distributed environment
		CO2: known about load distribution requirements and algorithms
		CO3: perform system resource management and utilization
		CO4: understand multiprocessor and data base operating systems

P14SE106C	**REAL-TIME SYSTEMS**	After completion of the course, the student will be able to
		CO1: know the fundamental concepts in applications of computer science
		CO2: apply knowledge in advanced computer science to formulate the analyze problems in computing and solve them
		CO3: apply knowledge to the design and conduct experiments as well as to analyze and interpret data
		CO4: gain knowledge on emerging concepts in theory and applications of computer science

P14SE106D	**INFORMATION SYSTEMS AND AUDITING**	After completion of the course, the student will be able to
		CO1: get knowledge on the information systems auditing and different audit procedures
		CO2: understands the security management, operations management and quality assurance management controls for organizational issues.
		CO3: realize the process controls and database controls in information auditing.
		CO4: acquire insights on audit software and code review mechanism.

P14SE107	**OBJECT ORIENTED SOFTWARE ENGINEERING LABORATORY**	After completion of the course, the student will be able to
		CO1: model the system
		CO2: design the object oriented software systems effectively using UML diagrams
		CO3: use case tools effectively.
		CO4: design object oriented application for the user requirements

P14SE108	**ADVANCED SOFTWARE LABORATORY**	After completion of the course, the student will be able to
		CO1: write .Net programs to develop windows applications
		CO2: establish the connection with the database in .Net programming
		CO3: implement web services and windows services
		CO4: to create web forms Java scripts and JSP

P14SE201	SOFTWARE ARCHITECTURE AND DESIGN PATTERNS	After completion of the course, the student will be able to
		CO1: design software architecture for large scale software systems
		CO2: describe a software architecture using various documentation approaches and architectural description languages
		CO3: identify and assess the quality attributes of a system at the architectural level communicate program structures using design patterns.
		CO4: select appropriate design patterns for design problems.

P14SE202	SOFTWARE QUALITY ASSURANCE AND TESTING	After completion of the course, the student will be able to
		CO1: know the scope of software testing and quality assurance in software development life cycle
		CO2: capable of performing testing & quality assurance activities using modern software tools
		CO3: develop test plans, schedules and budget for a testing & quality assurance projects
		CO4: effectively manage a testing & quality assurance projects

P14SE203	ADVANCED DATA MINING	After completion of the course, the student will be able to
		CO1: apply the data mining algorithms for real world problems
		CO2: analyze advances in classification and clustering algorithms
		CO3: able to build web and text mining applications
		CO4: gain knowledge in temporal and spatial mining applications

P14SE 204	CLOUD COMPUTING	After completion of the course, the student will be able to
		CO1: know the different cloud models
		CO2: understand various services of cloud
		CO3: gain knowledge on cloud virtualization technologies
		CO4: learn cloud and SOA concepts

P14SE205A	MODEL DRIVEN SOFTWARE DEVELOPMENT	After completion of the course, the student will be able to
		CO1: know essentials concepts model driven software development
		CO2: apply model driven software development for real time practices
		CO3: manage projects of model driven software development.
		CO4: utilize the real-time technologies for model driven software development

P14SE205B	INFORMATION RETRIVAL SYSTEM	After completion of the course, the student will be able to
		CO1: know essentials concepts Information retrieval systems
		CO2: analyze advances in information retrieval algorithms
		CO3: gain knowledge in advances of web searching technologies
		CO4: build text classification based application

P14SE205C	**MACHINE LEARNING**	After completion of the course, the student will be able to
		CO1: know fundamental issues and challenges of machine learning: data, model selection, model complexity.
		CO2: know Strengths and weaknesses of many popular machine learning approaches.
		CO3: appreciate the underlying mathematical relationships within and across Machine Learning algorithms and the paradigms of supervised and un-supervised learning.
		CO4: design and implement various machine learning algorithms in a range of real-world applications

P14 SE205D	**SEMANTIC WEB AND SOCIAL NETWORKS**	After completion of the course, the student will be able to
		CO1: understand different techniques in web semantics
		CO2: understand different tools, methods and mapping in Ontology engineering
		CO3: analyze web services, semantic search techniques to develop semantic web applications.
		CO4: analyze social network structure and different sources for it.

P14 SE206A	**BIG DATA ANALYTICS**	After completion of the course, the student will be able to
		CO1: learn about Big data analytic processes and tools.
		CO2: know about Big data architecture and reports
		CO3: use Map reduce for building Big data applications
		CO4: learn Frequent Item sets and Clustering and Visualization

P14SE206B	**MOBILE COMPUTING**	After completion of the course, the student will be able to
		CO1: know the basic concepts and principles of mobile computing
		CO2: know the characteristics and limitations of mobile hardware devices including their user-interface modalities.
		CO3: understand the positioning techniques and location based services and applications
		CO4: know the structure and components for Mobile IP and Mobility management and organize the functionalities of mobile computing systems

P14SE206C	**SOFT COMPUTING**	After completion of the course, the student will be able to
		CO1: implement machine learning through neural networks.
		CO2: gain knowledge to develop genetic algorithm .
		CO3: develop genetic algorithm to solve the optimization problem
		CO4: develop a fuzzy expert system to derive decisions and model neuro fuzzy system for data clustering and classification

P14SE206D	**DISTRIBUTED COMPUTING**	After completion of the course, the student will be able to
		CO1: problem solving skills to distributed application.
		CO2: identify and decompose complex systems into its components parts
		CO3: integrate OS and programming language concepts to solve distributed components of the system.
		CO4: practice a variety of simple methods for develop suites of networking protocols for implementing the communicating components

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P14SE 207	**SOFTWARE TESTING LABORATORY**	After completion of the course, the student will be able to
		CO1: exposure on Win-runner and QTP for functional testing
		CO2: use load runner for load and stress testing
		CO3: use test director for test management
		CO4: work with JUnit, HTMLUnit, CPPUnit

P14SE208	**DATA ENGINEERING LABORATORY**	After completion of the course, the student will be able to
		CO1: adopt real-time data warehousing tools
		CO2: implement data mining algorithms
		CO3 build data mining applications for credit risk management
		CO4: use WEKA tool for testing data mining algorithms