Teerthanker Mahaveer University College of Computing Sciences & IT

M.Tech. (Computer Sciences and Engineering)

Programme Specific Outcome

PSO-1	:	Understanding and Analyzing the real time problems and to develop solutions by
		applying appropriate mathematical logic and algorithms.
PSO-2	:	Applying knowledge in various domains to identify research gaps and hence to
		provide solution to new ideas and innovations.
PSO-3	:	Applying skills acquired for retrieving, analyzing and managing large data leading to
		effective decision making and application development using suitable engineering
		tools.

Course Outcomes

MCS 107	CO-1	Understanding and applying the concepts of various data warehousing
		and data mining models.
	CO-2	Understanding and applying the concepts of classification and clustering
		algorithms.
	CO-3	Understanding and applying the concepts of Data Cube Technology.
	CO-4	Understanding and applying the concepts of Association Rules in Large
		Databases
	CO-5	Applying the concepts of Mining the World Wide Web.
	CO-6	Applying the concepts of Mining Time-Series and Sequence Data.
MCS 111	CO-1	Understanding the concepts of DBMS architectures.
	CO-2	Understanding and applying the concepts of Normalization techniques.
	CO-3	Understanding and applying the concepts of DB2, MySQL,SQLJ, JDBC and
		related Java capabilities in Oracle.
	CO-4	Understanding and applying the concepts of Distributed Databases.
	CO-5	Understanding and applying the concepts of Database Administration
		tools
	CO-6	Understanding and applying the concepts of Transaction Processing &
		Locking techniques.
MCS 112	CO-1	Understanding the concepts of advanced data structures.
	CO-2	Understanding and applying the concepts of designing an algorithm.
	CO-3	Understanding and applying the concepts of advanced tree and graph
		algorithms.
	CO-4	Understanding and applying the concepts of shortest path algorithms.
	CO-5	Understanding and applying the concepts of minimum spanning tree
		algorithms.
	CO-6	Understanding and applying the concepts of Approximation algorithms
		and Randomized Algorithm.
MCS 102	CO-1	Understanding the concepts of Instruction set principles, ILP Techniques.
	CO-2	Understanding the concepts of VLIW approach

	CO-3	Understanding and applying the concepts of symmetric shared and
		distributed shared memory architecture.
	CO-4	Understanding and applying the concepts of RAID- errors and failures.
	CO-5	Applying and analyzing the performance of different ILP techniques.
MCS 104	CO-1	Understanding the concepts of advanced process models.
	CO-2	Understanding, applying and analyzing the concepts of Context Models,
		Behavioral models, Data models.
	CO-3	Understanding, applying and analyzing the concepts of Object-Oriented
		Design and User inter face design.
	CO-4	Understanding, applying and analyzing the role of design patterns in
		software development.
	CO-5	Understanding, applying and analyzing testing techniques on developed
		software.
	CO-6	Understanding, applying and analyzing modern engineering tools for
		software Development.
MCS 106	CO-1	Understanding the Structure of real time system
	CO-2	Understanding the concepts of embedded software architectures and
		Scheduling algorithms
	CO-3	Understanding the concepts of Interrupt basic system design using an RT
	CO-4	Understanding and Analyzing the Real time v/s general purpose
	CO-5	Understanding and Analyzing Disk scheduling algorithms.
	CO-6	Understanding and analyzing Fault Tolerance Techniques.
MCS 153	CO-1	Understanding the concepts of WEKA Tool.
	CO-2	Applying various Data Mining techniques available in WEKA.
	CO-3	Analyzing Data Preprocessing tasks and performing association rule
		mining on data sets.
	CO-4	Analyzing classification algorithms on data set.
	CO-5	Analyzing clustering algorithms on data sets.
MCS 154	CO-1	Applying and Analyzing mySQL statements to perform different
		operations.
	CO-2	Applying and Analyzing various Normalization techniques.
	CO-3	Applying and Analyzing various queries related to Transaction Processing.
	CO-4	Applying recovery techniques for database recovery
	CO-5	Applying various Locking Protocols and Techniques to control the
	<u> </u>	Creating on index
		Applying and Applying Algorithms for solving problems like certing
10103 122	0-1	Apprying and Analyzing Algorithms for solving problems like soluting,
	<u> </u>	Applying and Applyzing BES and DES for a given graph
	CO-2	Applying and Analyzing Shortest-nath Algorithms
	CO-4	Applying and Analyzing Shortest-path Algorithms
	CO-4	Applying and Analyzing Minimum Spanning Tree algorithms
MCS 202		Applying and Analyzing B-free, AVE free Operations.
	(0.2	Understanding and analyzing the concepts of IAN and MAN standards
	CO-2	Understanding and Analyzing the concepts of LAN difu WAN standards.
	CO-3	Protocols
	<u> </u>	Frotocols.
	0-4	

		Protocol, User Datagram Protocol.
	CO-5	Understanding and analyzing the concepts of DNS, SNMP, RMON
MCS 204	CO-1	Understanding the concepts of Data Visualization, Correlation, and
		Regression.
	CO-2	Understanding and Applying the concepts of Big Data Architecture and
		Big data warehouses.
	CO-3	Analyzing the concepts of BI Framework, BI Project Life Cycle.
	CO-4	Analyzing the concepts of Business Intelligence and Business Analytics.
	CO-5	Understanding, Applying and Analyzing the concepts of Hadoop
		Ecosystem, HDFS, Map-Reduce.
MCS 205	CO-1	Understanding the concepts of AI and their role in the semantic web
	CO-2	Understanding and analyzing the concepts of Ontology's languages.
	CO-3	Understanding and analyzing the concepts of Ontology Engineering,
		Ontology Methods.
	CO-4	Understanding and Analyzing the concepts of Semantic Web and
		Semantic Search Technology
	CO-5	Applying and analyzing the concepts of social networks analysis.
MCS 231	CO-1	Understanding and applying the concepts of Machine perception, pattern
		recognition and Bayesian Decision Theory.
	CO-2	Understanding, applying and analyzing Un-supervised learning
		Algorithms.
	CO-3	Understanding, applying and analyzing the concepts of Pattern
		recognition using discrete hidden Markov models.
	CO-4	Understanding and analyzing the concepts of sampling and quantization.
	CO-5	Detection.
MCS 232	CO-1	Understanding the concepts of neural network. Knowledge
		Representation and Artificial Intelligence
	CO-2	Understanding the concepts of SOM algorithm.
	CO-3	Understanding, Applying and analyzing the concept of Single Layer and
		Multi Layer Perceptrons.
	CO-4	Understanding, Applying and analyzing the concepts of back propagation
		and differentiation.
	CO-5	Applying the appropriate learning technique to pattern classification.
MCS 235	CO-1	Understanding the concepts of Genetic Algorithms
	CO-2	Understanding the concept of Two-Armed and k-armed problem
	CO-3	Understanding the concepts of crossover & mutation
	CO-4	Understanding and applying the concepts of advanced operators such as
		Dominance, duplicity, & abeyance
	CO-5	Analyzing the techniques in genetic search.
MCS 238	CO-1	Understanding the concepts of Natural Language Processing.
	CO-2	Understanding the concepts of Semantic Roles
	CO-3	Understanding and applying the concept of Finite State Machine Based
		Morphology and Automatic Morphology Learning
	CO-4	Understanding, applying and analyzing the concept of Rule-Based
		Machine Translation and Knowledge Based MT System
	CO-5	Understanding and analyzing the techniques in Speech Recognition.

MCS 240	CO-1	Understanding the concepts of Testing Process and Graph Theory.
	CO-2	Understanding the role of Test Planning and Policy development.
	CO-3	Understanding, Applying and Analyzing the concepts of Boundary Value
		Analysis, Equivalence Class Testing, Decision Table Based Testing, Cause
		Effect Graphing Technique.
	CO-4	Understanding and Analyzing test cases from use cases.
	CO-5	Understanding, applying and analyzing the concepts of Software Testing
		Tools.
	CO-6	Understanding, Applying and Analyzing Object oriented Testing.
MCS 252	CO-1	Applying and analyzing the concepts of various network simulators.
	CO-2	Applying and Analyzing various networking protocols.
	CO-3	Applying and Analyzing Socket Programming.
	CO-4	Applying and Analyzing Routing Protocols.
	CO-5	Applying and Analyzing Application Layer protocol.
MCS 253	CO-1	Applying and analyzing Hadoop related tools such as HBase, Cassandra,
		Pig, and Hive for big data Analytics.
	CO-2	Applying and analyzing clustering algorithms.
	CO-3	Applying and analyzing algorithms for large Datasets using Map Reduce
		techniques.
	CO-4	Applying and analyzing Page Rank Computation.
	CO-5	Creating NoSQL query with API.
MCS 291	CO-1	Understanding the factual knowledge of current areas of research.
	CO-2	Applying gained knowledge in thinking, problem solving, or decisions
		making process.
	CO-3	Analyzing problems after doing research literature survey
	CO-4	Analyzing the applicability of modern software tools and technology.
	CO-5	Creating Seminar Report.
MCS 303	CO-1	Understanding, Applying and analyzing various protocols for network
		security to protect against the threats in the networks.
	CO-2	Understanding, Applying and analyzing different encryption and
		decryption techniques.
	CO-3	Applying the knowledge of cryptographic checksums and Analyzing the
		performance of different message digest algorithms for verifying the
		integrity of varying message sizes.
	CO-4	Applying different digital signature algorithms to achieve authentication
		and create secure applications
	CO-5	Analyzing different attacks on networks.
	CO-6	Analyzing the performance of firewalls and security protocols like SSL.
MCS 304	CO-1	Understanding the concepts of state space and its searching strategies.
	CO-2	Understanding the concepts of knowledge representation and predicate
	<u> </u>	logic.
	CO-3	Understanding the concepts of Supervised and Unsupervised learning
	CO-4	Applying the concepts of Unsupervised learning, Neural Network.
	CO-5	Applying the K-IVIeans Algorithm.
INICS 339	<u>CO-1</u>	Understanding the concepts of Cloud Computing and its applications.
	CO-2	Understanding and analyzing the Concepts of Cloud Infrastructure Model
		including SaaS, PaaS, IaaS, public cloud, private cloud, hybrid cloud, etc.

	CO-3	Understanding and applying the importance of virtualization along with
		their technologies and Analyzing the comparative advantages and
		disadvantages of Virtualization technology.
	CO-4	Understanding and analyzing the concepts of Cloud Computing
		Architecture.
	CO-5	Understanding, Applying and Analyzing the concepts of Map-Reduce for
		Simplified data processing on Large clusters
MCS 337	CO-1	Understanding the concepts of Architectural models for distributed and
		mobile computing systems
	CO-2	Understanding and analyzing the concepts of Middleware, client/server
		model, common layer application protocols such as RPC, RMI, streams
	CO-3	Understanding and analyzing the Model for Simulations.
	CO-4	Understanding and analyzing the concepts of Grid Computing and its
		applications.
	CO-5	Understanding and analyzing the concepts of Processor organization such
		as Static and dynamic interconnections.
MCS 344	CO-1	Understanding the concepts of MATLAB.
	CO-2	Understanding, applying and analyzing Linear Equations, Inverse Matrix,
		Decomposition, Iterative Methods to Solve Equations .
	CO-3	Understanding, applying and analyzing Nonlinear Equations such as
		Bisection Method, Regula Falsi Method.
	CO-4	Understanding, applying and analyzing Differential Equations such as
		Euler's Method, Runge–Kutta Method
	CO-5	Understanding, applying and analyzing Eigenvalues and Eigenvectors,
		Power Method, Jacobi Method
	C06	Understanding, applying and analyzing Partial Differential Equations such
		as Elliptic, Hyperbolic, and Parabolic PDE
MCS 345	CO-1	Understanding the fundamental concepts of a digital image processing
	<u> </u>	System.
	CO-2	Understanding and Analyzing images in the frequency domain using
	<u> </u>	Understanding, applying and analyzing a suitable techniques.
	CO-5	domain to perform image enhancement, perform basic processing on
		color images
	CO-4	Understanding applying and analyzing the concepts of image
		segmentation.
	CO-5	Understanding, applying and Analyzing the image compression
		techniques in spatial and frequency domains.
MCS 353	CO-1	Applying and Analyzing various Classification Techniques.
	CO-2	Applying and Analyzing various Clustering Techniques.
	CO-3	Applying and Analyzing different machine learning techniques for real
		world problems.
	CO-4	Applying and Analyzing various Regression Techniques.
	CO-5	Implementing clustering of patterns
MCS 392	CO-1	Understanding an independent learning in the identified area of
		computer science and engineering.
	CO-2	Understanding the process of research and the ethical issues related to it.

	CO-3	Applying the process of research.
	CO-4	Applying knowledge about emerging trends and the scope for research
		and development by publishing the review or survey paper in the
		identified area.
	CO-5	Applying ideas into the form of a research synopsis/proposal.
MCS 491	CO-1	Understanding the objectives of the dissertation by grasping and
		analyzing through an extensive literature review in the significant area of
		study.
	CO-2	Applying the methodology and execute the study through conduct of
		analytical/experimental work to achieve the objectives.
	CO-3	Analyzing and review the existing literature on a research question.
	CO-4	Analyzing and Evaluating the dissertation work as per appropriate
		standards of documentation and presentation.
	CO-5	Designing solutions to the problem and publish research papers.