MAR ATHANASIUS COLLEGE OF ENGINEERING

KOTHAMANGALAM

COMPUTER SCIENCE ENGINEERING DEPARTMENT

LIST OF COURSE OUTCOMES

M.TECH

SEMESTER	SUBJECT CODE	SUBJECT NAME	CO NO:	CO DESCRIPTION
S1	05CS 6001	Computational Intelligence	1	Demonstrate basic knowledge and awareness about fuzzy relations and neural networks
			2	Use and develop fuzzy inferences and neural networks for solving computational tasks
			3	Model uncertinities, swarm intelligence and soft computing techniques for complex applications
			4	Examine and formulate intelligent solutions for real world problems
S1	05CS 6003	Advanced Data Structures and Algorithms	1	Be able to classify different tree data structures and to recognize the advantages and disadvantages of the different implementations.
			2	Be able to apply structured data and perform more complex tasks, typical of larger software projects.
			3	Ability to discover algorithm or data structure to use in different scenarios.
			4	Be able to determine analytical comprehension of concepts such as abstract data, algorithms and efficiency analysis.
S1	05CS 6005	Data Mining and Warehousing	1	Be able to infer appropriate data mining techniques to extract knowledge in large

				databases and data warehouses
			2	Be able to analyze and compare various classification algorithms to apply in appropriate domain
			3	Be able to evaluate the performance of various clustering methods using performance metrics
			4	Be able to adapt the concept of clustering in outlier analysis and design new data mining methods to use in real world scenarios
S1	05CS 6007	Object Oriented Software Engineering	1	Express the fundamental principles underlying object oriented software engineering.
			2	Construct UML models adhering to the principles of object oriented software development.
			3	Construct the object models corresponding to the Analysis and Design domain.
			4	Analyze the techniques used for model transformation and testing.
S1	05CS 6011	Elective 1 (Web Security)	1	Be able to interpret a web based system with respect to security requirements
			2	Understand the process of developing secure networked systems
			3	Understand the fundamental mechanism of constructing secure web based systems
			4	Be able to inspect security mechanisms to secure a web server and ensure cloud security
S1	05CS 6077	Research Methodology	1	understand basic methadologies involved while performing a systematic research

			2	develop understanding of various sampling and data collection methods
			3	compare and examine various data analysis-and hypothesis testing procedures
			4	analyze current research and to effectively write a good research paper
S1	05CS 6091	CASE Lab	1	Identify state and behavious of real world objects while analysing problems
			2	Solve problems using object oriented methodologies
			3	Analyse problems, estimate effort and cost requied for implementing solution and develop documents
			4	Test for inspecting the solution and document the same.
S2	05CS 6002	Modern Databases	1	Recognize, Relate and Express Web, Semi Structured and Big Data
			2	Demonstrate basic knowledge and awareness about distributed databases and spatial databases
			3	Model data for conventional and modern applications
			4	Test for inspecting the solution and document the same.
S2	05CS 6004	Advanced Computer Networks	1	Capable of listing and classifying network services, protocols and architectures, explain why they are layered
			2	To get familarized with protocols in different layers
			3	Apply various protocols to develop their own application(eg; client-sever application, web

				services) using the socket API
			4	Recognize and reproduce the various communication mechanisms using techniques like connection establishment , queing theory, congestion control etc
S2	05CS 6006	Operating System Design Concepts	1	Describe how the basic operating system concepts are implemented in UNIX
			2	IIIustrate various low level algorithms and model new low level algorithms that can run in UNIX
			3	Compare the behavior of processes working in UNIX system
			4	Analyze the different methods used for interprocess communication in UNIX
S2	05CS 6026	Elective II (Advanced Computer Architecture)	1	recognize and express advanced issues in design of computer processors,cache and memory
			2	apply knowledge of processor design to improve performance in algorithms and software design
			3	analyze performance tradeoff in computer design
			4	design new architecture to solve real life problems using GPU
S2	05CS 6034	Elective III (Embedded Systems)	1	Recognise & express the basic concepts of embedded hardware & software
			2	Identify different components in an embedded hardware schematic.

			3	Analyse the requirements of an ES tochoose its software components.
			4	Design ES to solve real life problems.
S2	05CS 6066	Seminar I	1	Identify and analysis a work L3,L4
			2	Develop a technical presentation and improve their presentation skill L3
			3	Extend their reading habit L2
			4	Formulate technical report which improves the communication skill L5
S2	05CS 6088	Mini project	1	Be able to identify and analize problems in the area of Computer Science
			2	Be able discover the current state of the art and examine the practical skills needed to modify problems related to programming and designing
			3	Be able to test and estimate the conformance of the developed prototype against the original requirement of the problem
			4	Be able to formulate technical report and presentations which improves the communication skills
S2	05CS 6092	Network Systems Lab	1	Capable of demonstrating the network simulation
			2	Identify trace file and different routing protocols.
			3	Model network simulation in wireless networks.
			4	Analyze the various tools that monitor network security
S3	05CS 7041	Big data Processing	1	Be able to extend the effective data storage mechanisms using HDFS and Hbase

			2	Be able to demonstrate the distributed processing of large data sets across clusters using simple programming models
			3	Be able to model parallel computation across clusters using Pig and perform adhoc querying using Hive
			4	Be able to develop workflow scheduling using Oozie and perform fast scheduling using Spark
S3	05CS 7051	Web Services	1	Develop web service enabled applications.
			2	Experiment with SOAP
			3	Identify WSDL tools & UDDI implementations.
			4	Identify various JAVA APIs & analyse them for developing web services
S3	05CS 7067	Seminar II	1	Identify and analysis a work L3,L4
			2	Develop a technical presentation and improve their presentation skill L3
			3	Extend their reading habit L2
			4	Formulate technical report which improves the communication skill L5
S3	05CS 7087	Project (Phase1)	1	Be able to to identify and analyze problems in the area of computer science
			2	Be able to discover the current state of the art and examine the practical skills needed to modify problems related to programming and designing
			3	Be able to test for and estimate the conformance of the developed prototype against the original requirement of the problem

			4	Be able to formulate technical report and presentations which improves the communication skills
S4	05CS 7088	Project (Phase 2)	1	Be able to to identify and analyze problems in the area of computer science
			2	Be able to discover the current state of the art and examine the practical skills needed to modify problems related to programming and designing
			3	Be able to test for and estimate the conformance of the developed prototype against the original requirement of the problem
			4	Be able to formulate technical report and presentations which improves the communication skills