MASTER OF COMPUTER SCIENCE AND ENGINEERING

COURSE OUTCOMES

2017 REGULATION

	YEAR/SEMESTER : I/I
	MA5160-Applied Probability and Statistics
C101.1	Basic probability axioms and rules and the moments of discrete and continuous random variables
C101.2	Consistency, efficiency and unbiasedness of estimators, method of maximum likelihood estimation and Central Limit Theorem
C101.3	Use statistical tests in testing hypotheses on data
C101.4	Perform exploratory analysis of multivariate data, such as multivariate normal density, calculating descriptive statistics, testing for multivariate normality
	CP5151-Advanced Data Structures and Algorithms
C102.1	Design data structures and algorithms to solve computing problems
C102.2	Design algorithms using graph structure and various string matching algorithms to solve real-life problems
C102.3	Apply suitable design strategy for problem solving

CP5152-Advanced Computer Architecture	
C103.1	Identify the limitations of ILP
C103.2	Discuss the issues related to multiprocessing and suggest solutions
C103.3	Point out the salient features of different multicore architectures and how they exploit parallelism
C103.4	Discuss the various techniques used for optimizing the cache performance
C103.5	Design hierarchal memory system
C103.6	Point out how data level parallelism is exploited in architectures
CP5153-Operating System Internals	
C104.1	To explain the functionality of a large software system by reading its source.
C104.2	To revise any algorithm present in a system.
C104.3	To design a new algorithm to replace an existing one.
C104.4	To appropriately modify and use the data structures of the linux kernel for a different software system

	CP5154-Advanced Software Engineering	
C105.1	Understand the advantages of various Software Development Lifecycle Models
C105.2	Gain knowledge on project management approaches as well as cost and schedule estimation strategies
C105.3	Perform formal analysis on specifications
C105.4	Use UML diagrams for analysis and design
C105.5	Architect and design using architectural styles and design patterns
C105.6	Understand software testing approaches
C105.7	Understand the advantages of DevOps practices
	CP5191-Machine Learning Techniques	
C106.1	Distinguish between, supervised, unsupervised and semi-supervised learning
C106.2	Apply the appropriate machine learning strategy for any given problem
C106.3	Suggest supervised, unsupervised or semi-supervised learning algorithms for any given problem
C106.4	Design systems that uses the appropriate graph models of machine learning
C106.5	Modify existing machine learning algorithms to improve classification efficiency

CP5161-Data Structures Laboratory	
C107.1	Design and implement basic and advanced data structures extensively.
C107.2	Design algorithms using graph structures
C107.3	Design and develop efficient algorithms with minimum complexity using design techniques
YEAR/SEMESTER : I/II	
CP5201-Network Design and Technologies	
C208.1	Identify the components required for designing a network
C208.2	Design a network at a high-level using different networking technologies
C208.3	Analyze the various protocols of wireless and cellular networks
C208.4	Discuss the features of 4G and 5G networks
C208.5	Experiment with software defined networks
CP5291-Security Practices	
C209.1	Understand the core fundamentals of system security
C209.2	Apply the security concepts related to networks in wired and wireless scenario
C209.3	Implement and Manage the security essentials in IT Sector
C209.4	Able to explain the concepts of Cyber Security and encryption Concepts
C209.5	Able to attain a through knowledge in the area of Privacy and Storage security and related Issues.

	CP5292-Internet of Things	
C210.1	Analyze various protocols for IoT	
C210.2	Develop web services to access/control IoT devices	
C210.3	Design a portable IoT using Rasperry Pi	
C210.4	Deploy an IoT application and connect to the cloud.	
C210.5	Analyze applications of IoT in real time scenario	
	CP5293-Big Data Analytics	
C211.1	Understand how to leverage the insights from big data analytics	
C211.2	Analyze data by utilizing various statistical and data mining approaches	
C211.3	Perform analytics on real-time streaming data	
C211.4	Understand the various NoSql alternative database models	
	CP5092 - Cloud Computing Technologies	
C212.1	Employ the concepts of storage virtualization, network virtualization and its management	
C212.2	Apply the concept of virtualization in the cloud computing	
C212.3	Identify the architecture, infrastructure and delivery models of cloud computing	
C212.4	Develop services using Cloud computing	
C212.5	Apply the security models in the cloud environment	

CP5072 - Software Architectures and Design	
C213.1	Understand the need of software architecture for sustainable dynamic systems
C213.2	Have a sound knowledge on design principles and to apply for large scale systems
C213.3	Design architectures for distributed heterogeneous systems
C213.4	Have good knowledge on service oriented and model driven architectures and the aspect oriented architecture
C213.5	Have a working knowledge to develop appropriate architectures through various case studies
CP5261-Data Analytics Laboratory	
C214.1	Process big data using Hadoop framework
C214.2	Build and apply linear and logistic regression models
C214.3	Perform data analysis with machine learning methods
C214.4	Perform graphical data analysis
CP5281-Term Paper Writing and Seminar	
C215.1	Identify the Domain Specific Objective
C215.2	Summarize the literature Survey
C215.3	Analyzing different Methodologies
C215.4	Produce Final Draft of the Research Paper
C215.5	Prepare Presentation for the research undergone

YEAR/SEMESTER : II/III	
CP5005 - Software Quality Assurance and Testing	
C301.1	Perform functional and nonfunctional tests in the life cycle of the software product
C301.2	Understand system testing and test execution process
C301.3	Identify defect prevention techniques and software quality assurance metrics
C301.4	Apply techniques of quality assurance for typical applications
CP5073 - Embedded Software Development	
C302.1	Understand different architectures of embedded processor, microcontroller and peripheral devices. Interface memory and peripherals with embedded systems
C302.2	Work with embedded network environment
C302.3	Understand challenges in Real time operating systems
C302.4	Design and analyze applications on embedded systems
CP5097 - Mobile Application Development	
C303.1	Describe the requirements for mobile applications
C303.2	Explain the challenges in mobile application design and development
C303.3	Develop design for mobile applications for specific requirements.
C303.4	Implement the design using Android SDK.
C303.5	Implement the design using Objective C and iOS.
C303.6	Deploy mobile applications in Android and iPhone marketplace for distribution

	CP5311-Project Work Phase – I
C304.1	Identify the problem by applying acquired knowledge
C304.2	Construct and organize executable project modules through proper designing
C304.3	Choose efficient tools for implementation of the designed modules
C304.4	Analyze and categorize the outcomes of the implementation and derive inferences.
C304.5	Examine the completed task and compile the project report
	YEAR/SEMESTER : II/IV
	CP5411-Project Work Phase – II
C401.1	Plan and construct improved methods for an identified problem by applying acquired knowledge
C402.2	Experiment and Develop effective solutions through proper designing
C401.3	Analyze and categorize the outcomes of the implementation and derive inferences.
C402.4	Assess the acquired outcomes based on evaluation metrics