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DEPARTMENT OF INFORMATION TECHNOLOGY

REGULATION – 2013
COURSE OUTCOMES

MA6351- Transforms and Partial differential Equations [C201]

C201.1	Formulate and solve partial differential equations.
C201.2	Evaluate Fourier series of periodic functions.
C201.3	Apply the method of separation of variables to find the solution of heat and wave equation.
C201.4	Illustrate the Fourier transform techniques.
C201.5	Examine Z transform techniques and solve difference equations.

CS6301- Programming and Data Structure II [C202]

C202.1	Explain the fundamentals of Object Oriented Programming
C202.2	Demonstrate the concepts of data abstraction, encapsulation and inheritance
C202.3	Outline the concepts of Exception handling and templates
C202.4	Summarize about tree preliminaries and other tree structures
C202.5	Demonstrate different graph data structure algorithms

CS6302- Database Management Systems [C203]

C203.1	Design Databases for applications and use the Relational model, ER Diagrams.
C203.2	Construct DDL, DML, TCL and DCL commands for different databases with various constraints.
C203.3	Apply concurrency control and recovery mechanisms for practical Problems.
C203.4	Able to select best data storage medium for databases.
C203.5	Apply security concepts to databases

CS6303- Computer Architecture [C204]

C204.1	Understand basic structure and operation of digital computer
C204.2	Design arithmetic and logic unit
C204.3	Design and analyze pipelined control units
C204.4	Understand parallel processing architectures
C204.5	Evaluate performance of memory systems.

CS6304- Analog and Digital Communication [C205]

C205.1	Apply analog communication techniques.
C205.2	Apply digital communication techniques
C205.3	Use data and pulse communication techniques
C205.4	Analyze Source and Error control coding
C205.5	Utilize multi-user radio communication

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GE6351- Environment Science and Engineering [C206]

C206.1	Gain knowledge on flora and fauna in our environment helps to know about social environment.
C206.2	Gain knowledge on the offensive effects of pollution in the day-to-day life.
C206.3	Acquire knowledge on the natural resources available and their conservation.
C206.4	Gain adequate knowledge on the concepts of adverse effects of social issues like acid rain and global warming.
C206.5	Get knowledge about the problems faced by the society due to population explosion.

IT6311- Programming and Data Structure Laboratory II [C207]

C207.1	Select good programming design methods for program development.
C207.2	Develop C++ programs for object oriented concepts.
C207.3	Develop C++ programs for handling exceptions.
C207.4	Develop C++ programs for practical problems using non-linear data structures.
C207.5	Develop recursive programs using trees and graphs.

IT6312- Database Management Systems Laboratory [C208]

C208.1	Infer database language commands to create simple database
C208.2	Analyze the database using queries to retrieve records
C208.3	Applying PL/SQL for processing database
C208.4	Analyze front end tools to design forms, reports and menus
C208.5	Develop solutions using database concepts for real time requirements.

IT6313- Digital Communication Laboratory [C209]

C209.1	Design and implement different modulation and demodulation techniques
C209.2	Analyse digital modulation techniques by using MAT Lab tools
C209.3	Able to perform channel coding.

MA6453- Probability and Queueing Theory [C210]

C210.1	Interpret the axiomatic formulation of Probability theory and random variables as an intrinsic need for the analysis of random phenomena
C210.2	Identify probability models, function of random variables based on one & two dimensional random variables and determine regression.
C210.3	Classify the concept of random processes and to demonstrate the specific applications to Poisson and Markov Processes.
C210.4	Examine the specific applications of queuing models.
C210.5	Illustrate the networks ideas and series queues.

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EC6504- Microprocessor and Microcontroller [C211]

C211.1	Understand architecture of 8086 and Design and implement programs on 8086 microprocessor
C211.2	Understand signals ,system bus architecture of 8086 and microprocessor configuration
C211.3	Design and implement interfacing of I/O circuits with 8086 microprocessor
C211.4	Understand architecture of 8051microcontroller.
C211.5	Understand architecture of 8051microcontroller,Design and implement programs on 8051 microcontroller

CS6402- Design and Analysis of Algorithms [C212]

C212.1	Analyse the complexity of algorithms for various computing problems
C212.2	Design and analyse solutions to problems based on Brute Force and Divide and Conquer approaches
C212.3	Design and analyse solutions to problems based on dynamic programming and greedy approach
C212.4	Design and analyse solutions to problems based on iterative improvement method
C212.5	Modify existing algorithms to improve efficiency.

CS6401- Operating Systems [C213]

C213.1	Explain the basic concepts, functions of Operating Systems and system calls
C213.2	Outline various threading models, process synchronization, Compare the performance of various CPU scheduling algorithms and deadlocks
C213.3	Compare and contrast various memory management schemes
C213.4	Explain I/O management and file systems
C213.5	Model Linux multifunction server and utilize local network services

CS6403- Software Engineering [C214]

C214.1	Explain the software engineering process and project management
C214.2	Demonstrate software requirements and analysis
C214.3	Outline the software design process and user interface
C214.4	Compare and contrast various software testing
C214.5	Discuss about the software integration and project management

IT6411- Microprocessor and Microcontroller Lab [C215]

C215.1	Introduce ALP concepts and features.
C215.2	Write ALP for arithmetic and logical operations in 8086 and 8051.
C215.3	Differentiate serial and parallel interface.
C215.4	Interface different I/Os with Microprocessors
C215.5	Be familiar with MASM

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IT6412- Operating Systems laboratory [C216]

C216.1	Implement Unix commands and shell programming
C216.2	Implement various CPU Scheduling Algorithms
C216.3	Implement Process Creation and Inter Process Communication.
C216.4	Implement Deadlock Avoidance and Deadlock Detection Algorithms
C216.5	Implement Page Replacement Algorithms and File Organization , File Allocation Strategies

IT6413- Software Engineering Lab [C217]

C217.1	Identify the requirements according to the objective.
C217.2	Use open source case tools to design a software system
C217.3	Design the individual module of the given project.
C217.4	Make the design using modeling diagram
C217.5	Demonstrate software development from design.

CS6551- Computer Networks [C301]

C301.1	Explain the components requirement of networks and link layer services.
C301.2	Classify the Media Access Controls Protocols and different Interworking
C301.3	Demonstrate various types of routing techniques.
C301.4	Outline the mechanism involved in transport layer.
C301.5	Experiment with different applications layer protocols.

IT6501- Graphics And Multimedia [C302]

C302.1	Model and transform 2D objects for raster graphics system.
C302.2	Model, transform and animate 3D objects for raster graphics system.
C302.3	Able to store and retrieve various multimedia data objects from multimedia database.
C302.4	Aware of various available compression algorithms, file formats, multimedia devices and storages techniques.
C302.5	Aware of hypermedia creation and communication.

CS6502- Object Oriented Analysis And Design [C303]

C303.1	Design and implement projects using OO concepts
C303.2	Use UML analysis and design diagram
C303.3	Apply appropriate design patterns
C303.4	Create code free design
C303.5	Compare and contrast various testing techniques

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IT6502- Digital Signal Processing [C304]

C304.1	Apply DFT for the analysis of digital signals and systems
C304.2	Design IIR and FIR filters
C304.3	Characterize finite word length effects on filters
C304.4	Design the Multi rate filters
C304.5	Apply adaptive filters to equalization

IT6503- Web Programming [C305]

C305.1	Design Web pages.
C305.2	Apply object oriented aspects to scripting
C305.3	Create databases with connectivity using JDBC
C305.4	Build web based application using servlets
C305.5	Use technologies of web programming

EC6801- Wireless Communication [C306]

C306.1	Analysis of Basic wireless technology
C306.2	Analysis the Large scale propagation & small scale fading
C306.3	Determine the cellular System.
C306.4	Comparison of multi path Mitigation techniques
C306.5	Determine the systems with Transmit / Receive Diversity in MIMO Systems Implementation & Analysis the MIMO Systems

IT6511- Networks Laboratory [C307]

C307.1	Implement protocols of various layers.
C307.2	Analyse various routing algorithms.
C307.3	Use simulation tools.

IT6512- Web Programming Laboratory [C308]

C308.1	Design Web pages using HTML/DHTML and style sheets
C308.2	Design and Implement database applications.
C308.3	Create dynamic web pages using server side scripting.
C308.4	Write Client Server applications.
C308.5	Write applications using .net and RMI
C308.6	To create web service applications.

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IT6513- Case Tools Laboratory [C309]

C309.1	Make use of object oriented and design concepts to solve a given problem specifications
C309.2	Identify and map basic software requirements in UML mapping.
C309.3	Apply design patterns to improve the software quality
C309.4	Test the compliance of the software with SRS
C309.5	Map the object oriented design to the developed code

CS6601- Distributed Systems [C310]

C310.1	Explain the distributed systems architecture, foundations and issues of distributed systems.
C310.2	Outline the inter process communication in distributed systems.
C310.3	Explain the file accessing model and various services in distributed system.
C310.4	Demonstrate concurrency control and properties of transaction in Distributed systems.
C310.5	Discuss resource and process management in distributed system

IT6601- Mobile Computing [C311]

C311.1	Explain the basics of mobile telecommunication system
C311.2	Choose the required functionality at each layer for given application
C311.3	Identify solution for each functionality at each layer
C311.4	Use simulator tools and design Ad hoc networks
C311.5	Develop a mobile application.

CS6659- Artificial Intelligence [C312]

C312.1	Understand the various AI search algorithms (uninformed, informed, constraint satisfaction algorithms).
C312.2	Apply various knowledge representation techniques to solve real world problems.
C312.3	Demonstrate the knowledge of reasoning with certain and/or uncertain information.
C312.4	Identify various planning techniques and machine learning techniques to solve real-world problems.
C312.5	Analyse the application of expert systems.

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CS6660- Compiler Design [C313]

C313.1	Understand the different phases of compiler.
C313.2	Design lexical analyser for a sample language.
C313.3	Apply different parsing algorithms to develop the parsers for a given grammar.
C313.4	Understand syntax-directed translation and run-time environment.
C313.5	Apply code optimization techniques and design simple code generator.

IT6602- Software Architecture [C314]

C314.1	Design and understand software architecture for large scale software systems
C314.2	Identify and assess the quality attributes of a system at the architectural level
C314.3	Develop architectural alternatives for a problem and select among them
C314.4	Recognize major software architectural styles, design patterns, and frameworks
C314.5	Gain Knowledge about documenting views

GE6757- Total Quality Management [C315.E1]

C315.1	Select and apply appropriate techniques in identifying customer needs, as well as the quality impact that will be used as inputs in TQM methodologies
C315.2	Have a strategy to create and maintain a quality culture that will move the organization towards world-class status
C315.3	Understand the TQM concept and techniques for managing, controlling and improving quality at the workplace.
C315.4	Knowing business excellence models and be able to assess organizations performance through data collection and analysis
C315.5	Have a strategy to implement total quality practices at the workplace and effect savings on the input cost of an organization.

IT6611- Mobile Application Development Lab [C316]

C316.1	Design and Implement various mobile applications using emulators.
C316.2	Deploy applications to hand-held devices

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IT6612- Compiler Lab [C317]

C317.1	Implement the different Phases of compiler using tools
C317.2	Analyze the control flow and data flow of a typical program
C317.3	Optimize a given program.
C317.4	Generate an assembly language program equivalent to a source language

GE6674- Communication and Soft Skills - Laboratory Based [C318]

C318.1	Take international examination such as IELTS and TOEFL.
C318.2	Make presentations and Participate in Group Discussions
C318.3	Successfully answer questions in interviews

IT6701-Information Management [C401]

C401.1	Cover core relational database topics including logical and physical design and modelling.
C401.2	Students can able to design different security standards.
C401.3	Design and implement a complex information system that meets regulatory requirements; define and manage an organization's key master data entities.
C401.4	Define the various purposes for information architecture as it applies to web site development, user interaction, interface design, and content management.
C401.5	Learn recent advances in NOSQL, Big Data and related tools.

CS6701- Cryptography and Network Security [C402]

C402.1	Understand the classical encryption techniques and solve the mathematical fundamentals behind the cryptographic algorithms
C402.2	Comprehend the principles and working of block ciphers, symmetric key and public key cryptographic algorithms.
C402.3	Understand the working and usage of hash functions and digital signatures
C402.4	Describe the various network security practices and design applications
C402.5	Analyse protocols for various security objectives

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IT6702- Data Warehousing and Data Mining [C403]

C403.1	Acquire knowledge in basics of data warehousing, design and construct data warehouse.
C403.2	Learn and use different reporting and query tools.
C403.3	Understand the basics of data mining concepts and issues in various mining systems.
C403.4	Analyze and implement association and classification algorithms.
C403.5	Explore and apply various clustering algorithms and outlier analysis algorithms in appropriate problems.

CS6703- Grid and Cloud Computing [C404]

C404.1	Outline the concept of Grid and Cloud Architectures.
C404.2	Illustrate the data intensive grid service models and grid computing techniques
C404.3	Demonstrate the concept of virtualization in cloud.
C404.4	Experiment with the programming model for Hadoop and globus toolkit.
C404.5	Interpret the security models in the grid and cloud environment.

IT6004- Software Testing [C405.E2]

C405.1	Design the suitable test cases for software development in different domains
C405.2	Prepare test planning based on the document. Identify suitable tests to be carried out
C405.3	Explain the various level of testing
C405.4	Design test plans and test cases.
C405.5	Develop and validate a test plan. Make use of automatic testing tools.

IT6711- Data Mining Laboratory [C406]

C406.1	Create a Data Warehouse
C406.2	Implement Clustering methods
C406.3	Apply data mining techniques for realistic data.

IT6712- Security Lab [C407]

C407.1	Implement the cipher techniques
C407.2	Develop the various security algorithms
C407.3	Use different open source tools for network security and analysis

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IT6713- Grid and Cloud Computing Lab [C408]

C408.1	Use the grid and cloud tool kits.
C408.2	Design and implement applications on the Grid.
C408.3	Design and Implement applications on the Cloud.

IT6801- Service Oriented Architecture [C409]

C409.1	Design and implement projects using basic notations of XML.
C409.2	Build applications based on XML.
C409.3	Compare SOA with other architecture.
C409.4	Develop and manage a modern SOA services
C409.5	Develop web services using technology elements

GE6075- Professional Ethics in Engineering [C410.E3]

C410.1	The students be aware on human values for professional excellence and stress management.
C410.2	The students gain knowledge on engineering ethics, moral issues & uses of ethical theories
C410.3	The students understand the role of engineers as responsible experimenters along with courses of ethics in engineering field.
C410.4	The students will be aware of responsibilities of an engineer for safety and risks along with risk benefit analysis.
C410.5	The students will acquire knowledge on global issues and able to apply ethical principles to resolve situations that arise in their professional lives.

CS6004- Cyber Forensics [C411.E4]

C411.1	Discuss the security issues of network layer and transport layer
C411.2	Apply security principles in the application layer
C411.3	Explain computer forensics
C411.4	Use forensics tools
C411.5	Analyze and validate forensics data

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IT6010-Business Intelligence [C411.E4]

C411.1	Explain the fundamentals of business intelligence.
C411.2	Link data mining with business intelligence.
C411.3	Apply various modeling techniques.
C411.4	Explain the data analysis and knowledge delivery stages.
C411.5	Apply business intelligence methods to various situations.

CS6008- Human Computer Interaction [C412.E5]

C412.1	Design Effective Dialog For HCI.
C412.2	Design Effective HCI For Individuals And Persons With Disabilities.
C412.3	Assess The Importance Of User Feedback.
C412.4	Explain The HCI Implications For Designing Multimedia/ Ecommerce/ E-Learning Web sites
C412.5	Develop Meaningful User Interface.

MG6088- Software Project Management [C412.E5]

C412.1	Identify the key activities in managing a software project
C412.2	Compare different process models.
C412.3	Concepts of requirements engineering and Analysis Modelling.
C412.4	Apply systematic procedure for software design and deployment.
C412.5	Compare and contrast the various maintenance concepts

CS6811- Project Work [C413]

C413.1	Review the literature and develop solutions for framed problem statement.
C413.2	Implement hardware and/or software techniques for identified problems.
C413.3	Test and analyses the modules of planned project.
C413.4	Write technical report and deliver presentation.
C413.5	Apply engineering and management principles to achieve project goal.

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