PKM Educational Trust ®

R. R. Institute of Technology

Affiliated to VTU Belgaum and Approved by AICTE, New Delhi ,Recognised by Govt. of Karnataka
Accredited by NAAC with **'B+'**
Raja Reddy Layout, Chikkabanavara, Bengaluru – 560 090

Department of Computer Science & Engineering

Course Outcomes 2015 Scheme

Course Name: CCS201(15MAT31) Engineering Mathematics	
CCS201.1	Use of periodic signals and Fourier series to analyse circuits
CCS201.2	Explain the general linear system theory for continuous-time signals and systems using the Fourier Transform
CCS201.3	Analyse discrete-time systems using convolution and the z-transform
CCS201.4	Use appropriate numerical methods to solve algebraic and transcendental equations and also to calculate a definite integral
CCS201.5	Use curl and divergence of a vector function in three dimensions, as well as apply the Green's Theorem, Divergence Theorem and Stokes' theorem in various applications
CCS201.6	Solve the simple problem of the calculus of variations
Course Name: CCS202 (15CS32) Analog and Digital Electronics	
CCS202.1	Explain the operation of JFETs and MOSFETs , Operational Amplifier circuits and their application, Design of Counters, Registers and A/D & D/A converters
CCS202.2	Explain Combinational Logic, Simplification Techniques using Karnaugh Maps, Quine McClusky technique.
CCS202.3	Demonstrate Operation of Decoders, Encoders, Multiplexers, Adders and Subtractors, working of Latches, Flip-Flops, Designing Registers, Counters, A/D and D/A Converters
CCS202.4	Design of Counters, Registers and A/D & D/A converters
Course Name: CCS203 (15CS33) Data Structures and Applications	
CCS203.1	Use different types of data structures, operations and algorithms
CCS203.2	Apply searching and sorting operations on files
CCS203.3	Use stack, Queue, Lists, Trees and Graphs in problem solving
CCS203.4	Implement all data structures in a high-level language for problem solving.
Course Name: CCS204(15CS34) Computer Organization	
CCS204.1	Explain the basic organization of a computer system..
CCS204.2	Demonstrate functioning of different sub systems, such as processor, Input/output, and memory
CCS204.3	Illustrate hardwired control and micro programmed control. pipelining, embedded and other computing systems.
CCS204.4	Design and analyse simple arithmetic and logical units.

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Course Name: CCS205(15CS35) Unix and Shell Programming	
CCS205.1	Explain the basic organization of a computer system.
CCS205.2	Demonstrate functioning of different sub systems, such as processor, Input/output,and memory.
CCS205.3	Illustrate hardwired control and micro programmed control. pipelining, embedded and other computing systems.
CCS205.4	Design and analyse simple arithmetic and logical units.
Course Name: CCS206(15CS36) Discrete Mathematical structures	
CCS206.1	Use propositional and predicate logic in knowledge representation and truth verification.
CCS206.2	Demonstrate the application of discrete structures in different fields of computer science.
CCS206.3	Solve problems using recurrence relations and generating functions
CCS206.4	Application of different mathematical proofs techniques in proving theorems in the courses.
CCS206.5	Compare graphs, trees and their applications.
Course Name: CCS211(15MAT41) Engineering Mathematics II	
CCS211.1	Use propositional and predicate logic in knowledge representation and truth verification.
CCS211.2	Demonstrate the application of discrete structures in different fields of computer science.
CCS211.3	Solve problems using recurrence relations and generating functions.
CCS211.4	Application of different mathematical proofs techniques in proving theorems in the courses.
CCS211.5	Compare graphs, trees and their applications
Course Name: CCS212(15CS42) Software Engineering	
CCS212.1	Design a software system, component, or process to meet desired needs within realistic Constraints.
CCS212.2	Assess professional and ethical responsibility
CCS212.3	Function on multi-disciplinary teams
CCS212.4	Use the techniques, skills, and modern engineering tools necessary for engineering practice
CCS212.5	Analyse, design, implement, verify, validate, implement, apply, and maintain software systems or parts of software systems.
Course Name: CCS213(15CS43) Design and Analysis of Algorithms	
CCS213.1	Describe computational solution to well known problems like searching, sorting etc.
CCS213.2	Estimate the computational complexity of different algorithms.
CCS213.3	Devise an algorithm using appropriate design strategies for problem solving.

Course Name: CCS214(15CS44) Microprocessors and microcontrollers	
CCS214.1	Make familiar with importance and applications of microprocessors and microcontrollers
CCS214.2	Expose architecture of 8086 microprocessor and ARM processor
CCS214.3	Familiarize instruction set of ARM processor
Course Name: CCS215(15CS45) Object Oriented Programming with JAVA	
CCS215.1	Explain the object-oriented concepts and JAVA
CCS215.2	Develop computer programs to solve real world problems in Java.
CCS215.3	Develop simple GUI interfaces for a computer program to interact with users, and to understand the event-based GUI handling principles using Applets and swings.
Course Name: CCS216(15CS46) Data communications	
CCS216.1	Illustrate basic computer network technology.
CCS216.2	Identify the different types of network topologies and protocols.
CCS216.3	Enumerate the layers of the OSI model and TCP/IP functions of each layer.
CCS216.4	Make out the different types of network devices and their functions within a network
CCS216.5	Demonstrate the skills of subnetting and routing mechanisms.
Course Name: CCS301(15CS51) Management and Entrepreneurship for IT Industry	
CCS301.1	Define management, organization, entrepreneur, planning, staffing, ERP and outline their importance in entrepreneurship
CCS301.2	Utilize the resources available effectively through ERP
CCS301.3	Make use of IPRs and institutional support in entrepreneurship
Course Name: CCS302(15CS52) Computer Networks	
CCS302.1	Explain principles of application layer protocols
CCS302.2	Recognize transport layer services and infer UDP and TCP protocols
CCS302.3	Classify routers, IP and Routing Algorithms in network layer
CCS302.4	Understand the Wireless and Mobile Networks covering IEEE 802.11 Standard
CCS302.5	Describe Multimedia Networking and Network Management
Course Name: CCS303(15CS53) Database Management System	
CCS303.1	Identify, analyse and define database objects, enforce integrity constraints on a database using RDBMS.
CCS303.2	Use Structured Query Language (SQL) for database manipulation.
CCS303.3	Design and build simple database systems
CCS303.4	Develop application to interact with databases.

Course Name: CCS304(15CS54-ATC) Automata theory and Computability	
CCS304.1	Introduce core concepts in Automata and Theory of Computation
CCS304.2	Identify different Formal language Classes and their Relationships
CCS304.3	Design Grammars and Recognizers for different formal languages
CCS304.4	Prove or disprove theorems in automata theory using their properties
CCS304.5	Determine the decidability and intractability of Computational problems
Course Name: CCS305(15CS551) Object Oriented Modelling and Design	
CCS305.1	Describe the concepts of object-oriented and basic class modelling.
CCS305.2	Draw class diagrams, sequence diagrams and interaction diagrams to solve difficulties.
CCS305.3	Choose and apply a befitting design pattern for the given problem.
Course Name: CCS306(15CS553) Advanced JAVA and J2EE	
CCS306.1	Interpret the need for advanced Java concepts like enumerations and collections in developing modular and efficient programs
CCS306.2	Build client-server applications and TCP/IP socket programs
CCS306.3	Illustrate database access and details for managing information using the JDBC API
CCS306.4	Describe how servlets fit into Java-based web application architecture
CCS306.5	Develop reusable software components
Course Name: CCS307(15CS565) Cloud Computing	
CCS307.1	Explain the concepts and terminologies of cloud computing
CCS307.2	Demonstrate cloud frameworks and technologies
CCS307.3	Define data intensive computing
CCS307.4	Demonstrate cloud applications
Course Name: CCS308(15CS564) Dot Net framework for application development	
CCS308.1	Build applications on Visual Studio .NET platform by understanding the syntax and semantics of C#
CCS308.2	Demonstrate Object Oriented Programming concepts in C# programming language
CCS308.3	Design custom interfaces for applications and leverage the available built-in interfaces in building complex applications.
CCS308.4	Illustrate the use of generics and collections in C#
CCS308.5	Compose queries to query in-memory data and define own operator behaviour

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Course Name: CCS311(15CS61) Cryptography, Network Security And Cyber Law	
CCS311.1	Discuss cryptography and its need to various applications
CCS311.2	Design and develop simple cryptography algorithms
CCS311.3	Understand cyber security and need cyber Law
Course Name: CCS312(15CS62) Computer Graphics And Visualization62	
CCS312.1	Design and implement algorithms for 2D graphics primitives and attributes.
CCS312.2	Illustrate Geometric transformations on both 2D and 3D objects.
CCS312.3	Apply concepts of clipping and visible surface detection in 2D and 3D viewing, and Illumination Models.
CCS312.4	Decide suitable hardware and software for developing graphics packages
Course Name: CCS313(15CS63-SS & CD) System Software and Compiler Design	
CCS313.1	Define System Software such as Assemblers, Loaders, Linkers and Microprocessors
CCS313.2	Familiarize with source file, object file and executable file structures and libraries
CCS313.3	Describe the front-end and back-end phases of compiler and their importance to
Course Name: CCS314(15CS64) Operating Systems	
CCS314.1	Demonstrate need for OS and different types of OS
CCS314.2	Apply suitable techniques for management of different resources
CCS314.3	Use processor, memory, storage and file system commands
CCS314.4	Realize the different concepts of OS in platform of usage through case stud
Course Name: CCS315(15CS651) Data Mining and Data Warehousing	
CC315.1	Identify data mining problems and implement the data warehouse
CC315.2	Write association rules for a given data pattern.
CC315.3	Choose between classification and clustering solution.
Course Name: CCS316(15CS653) Operation research	
CCS316.1	Select and apply optimization techniques for various problems.
CCS316.2	Model the given problem as transportation and assignment problem and solve.
CCS316.3	Apply game theory for decision support system.
Course Name: CCS317(15CS663) Wireless Networks and Mobile Computing	
CCS317.1	Summarize various mobile communication systems.
CCS317.2	Describe various multiplexing systems used in mobile computing.
CCS317.3	Indicate the use and importance of data synchronization in mobile computing

Course Name: CCS318(15CS661) Mobile Application Development	
CCS318.1	Create, test and debug Android application by setting up Android development environment
CCS318.2	Implement adaptive, responsive user interfaces that work across a wide range of devices.
CCS318.3	Infer long running tasks and background work in Android applications
CCS318.4	Demonstrate methods in storing, sharing and retrieving data in Android applications
CCS318.5	Analyse performance of android applications and understand the role of permissions and security
Course Name: CCS401(15CS71) Web Technology and its Applications	
CCS401.1	Adapt HTML and CSS syntax and semantics to build web pages.
CCS401.2	Construct and visually format tables and forms using HTML and CSS
CCS401.3	Develop Client-Side Scripts using JavaScript and Server-Side Scripts using PHP to generate and display the contents dynamically.
CCS401.4	Appraise the principles of object oriented development using PHP
CCS401.5	Inspect JavaScript frameworks like jQuery and Backbone which facilitates developer to focus on core features.
Course Name: CCS402 (15CS72) Advanced Computer Architecture	
CCS402.1	Describe computer architecture.
CCS402.2	Measure the performance of architectures in terms of right parameters.
CCS402.3	Summarize parallel architecture and the software used for them.
Course Name: CCS403(15CS73) Machine Learning	
CCS403.1	Explain the concepts of parallel computing and hardware technologies
CCS403.2	Compare and contrast the parallel architectures
CCS403.3	Illustrate parallel programming concepts
Course Name: CCS404(15CS743) Information and Network Security	
CCS404.1	Analyse the Digitals security lapses
CCS404.2	Illustrate the need of key management
Course Name: CCS405(15CS754) Storage Area Networks	
CCS405.1	Identify key challenges in managing information and analyse different storage networking technologies and virtualization
CCS405.2	Explain components and the implementation of NAS
CCS405.3	Describe CAS architecture and types of archives and forms of virtualization
CCS405.4	Illustrate the storage infrastructure and management activities

Course Name: CCS411(15CS81) Internet of Things and Applications	
CCS411.1	Interpret the impact and challenges posed by IoT networks leading to new architectural models.
CCS411.2	Compare and contrast the deployment of smart objects and the technologies to connect them to network.
CCS411.3	Appraise the role of IoT protocols for efficient network communication.
CCS411.4	Elaborate the need for Data Analytics and Security in IoT.
CCS411.5	Illustrate different sensor technologies for sensing real world entities and identify the applications of IoT in Industry
Course Name: CCS412(15CS82) Big Data Analytics	
CCS412.1	Master the concepts of HDFS and MapReduce framework
CCS412.2	Investigate Hadoop related tools for Big Data Analytics and perform basic Hadoop Administration
CCS412.3	Recognize the role of Business Intelligence, Data warehousing and Visualization in decision making
CCS412.4	Infer the importance of core data mining techniques for data analytics
CCS412.5	Compare and contrast different Text Mining Techniques
Course Name: CCS413(15CS832) User Interface Design	
CCS413.1	Design the user interface, design, menu creation and windows creation and connection between menu and windows