Programme Outcomes - Department of Information Technology (PG)

GPO No.	Programme Outcomes
PO1	To develop an understanding and knowledge of the advanced concepts in Information Technology with good foundation on theory, systems and applications.
PO2	Procedural knowledge that creates different types of professionals related to Information Technology, Computer Science, including research and development, teaching and industry, government and public service;
PO3	To acquire necessary and state-of-the-art skills to take up industry challenges.
PO4	The ability to synthesize the acquired knowledge, understanding and experience for a better and improved comprehension of the real-life problems
PO5	Demonstrate subject-related and transferable skills that are relevant to industry and employment opportunities.
PO6	Apply standard Software application practices and strategies in real-time software project development.
PO7	Demonstrate knowledge understanding of the scientific and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

<u>Programme Specific Outcomes - Department of Information Technology (PG)</u>

PSO No.	Intended Programme Specific Outcomes
PSO1	Ability to formulate, to model, to design solutions, procedure and to use software tools to solve real world problems and evaluate
PSO2	Design and develop computer programs/computer -based systems in the areas related to programming, networking, web site development, cloud computing, IOT and data analytics.
PSO3	An ability to effectively integrate IT-based solutions into the user environment.

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Course Outcome - M.Sc., Information Technology

First Semester

Core-1   **Advanced Java Programming (P21IT101)**

CO No.	Course Outcome
CO1	learning the fundamentals of Java, Applet programs, Swing Classes, JDBC, RMI, Servlet
CO2	develop Swing-based GUI and Apply Exception Handling in Programs, using RMI
CO3	analyze the concept of JDBC drivers, RMI, Servlet
CO4	running a thread, Start RMI registry, Sockets
CO5	develop RMI Applications, server-side programs in the form of servlets

Core – 2   **Digital Image Processing (P21IT102)**

CO No.	Course Outcome
CO1	memorizing the fundamentals of Image processing and Matlab Tools, Image Compression, Segmentation
CO2	applying Filtering techniques, Compression and Segmentation techniques.
CO3	experimenting Image Restoration, Reconstruction, Morphology
CO4	evaluating various Image Processing Techniques.
CO5	composing different Filtering, segmentation, Image Compression techniques on the Image

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Core – 3   **Advances in Operating System (P21IT103)**

CO No.	Course Outcome
CO1	understand the basic concepts of Operating Systems, Process Scheduling and Memory Management
CO2	practice process scheduling and Election algorithms
CO3	explain different architecture of Mobile OS
CO4	compare cloud and IOT concepts
CO5	design runtime issues on Mobile OS

Core Lab -1   **Advanced Java Programming Lab (P21IT1P1)**

CO No.	Course Outcome
CO1	learn the concepts of java applet programs
CO2	apply the connectivity of java programs with database by JDBC
CO3	examine the servlet programs
CO4	review the JSP pages using include directives
CO5	develop real time applications using enterprise java bean

Core Lab- 2   **Digital Image Processing Lab (P21IT1P2)**

CO No.	Course Outcome
CO1	perform image related operations
CO2	apply proper filter for different set of noisy images.
CO3	express different logical operation on images
CO4	estimate the concept of DWT of images
CO5	generate different image segmentation techniques

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EEC (A)   Data Mining and Data Warehousing (P21IT1EEA)

CO No.	Course Outcome
CO1	understand the basic concepts of Data mining and Data Warehousing, Web Mining.
CO2	apply Apriori and Naive Algorithms
CO3	examine various methods in Cluster Analysis
CO4	estimate the Web Mining Software
CO5	formulate OLAP System

EEC(B)   Multimedia Technology (P21IT1EEB)

CO No.	Course Outcome
CO1	gain basic knowledge on Multimedia Technology
CO2	compute various Compression and Encoding methods
CO3	analyze VoIP and SS7 Protocols
CO4	evaluate Scheduling and Policing Mechanism
CO5	design Real Time Interactive Applications

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Second Semester

Core –4   **Web Programming using PHP (P21IT204)**

CO No.	Course Outcome
CO1	Understand the basic concepts of Internet Standards, PHP and MYSQL
CO2	Practice Client and Server-side technologies, Controls and Functions, Mathematical Operators.
CO3	Focus on Sessions, Cookies and MySQL Queries
CO4	Estimate Session code and Functions
CO5	Creating Arrays and Building forms from queries

Core – 5   **.Net Programming (P21IT205)**

CO No.	Course Outcome
CO1	understand the concepts of .NET framework such as C# .NET, VB.NET, ASP.NET and ADO.NET
CO2	apply object oriented programming in C#.NET and VB.NET
CO3	analyze windows applications using window controls
CO4	evaluate various server controls
CO5	building ASP.NET enterprise applications

Core – 6   **Data Science and Big data Analytics (P21IT206)**

CO No.	Course Outcome
CO1	understand the concepts of Big data, R-Programming and clustering
CO2	apply various classification algorithms
CO3	analyze the classification methods and decision trees
CO4	evaluate various analytics technology and tools
CO5	building ARMA and ARIMA models

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Core-7   **Information Technology for Competitive Examinations (P21IT207)**

CO No.	Course Outcome
CO1	to bring desired changes in student's attitude
CO2	acquisition of Knowledge
CO3	to improve the learning skills of the students
CO4	to become a social and efficient member of society
CO5	analytical Reasoning and Non-verbal Reasoning

Core Lab - 3   **Web Programming Lab (P21IT2P3)**

CO No.	Course Outcome
CO1	enumerate string, math operations
CO2	compute Page hit Counter and Looping structure Utilization
CO3	analyze I/O and File Operations
CO4	implement MYSQL connectivity and perform Database manipulations
CO5	create maintenance of session in PHP

Core Lab - 4   **.Net Programming Lab (P21IT2P4)**

CO No.	Course Outcome
CO1	demonstrate the control structures in C#
CO2	apply type casting and infix to postfix notations
CO3	analyze various object oriented programming concepts
CO4	estimate validation and various web server controls
CO5	develop a basic windows phone application

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Core Lab - 5   Data Science and Big Data Analytics using R-Lab (P21IT2P5)

CO No.	Course Outcome
CO1	create list , arrays and frames
CO2	apply function to data frames
CO3	analyze visualization effects
CO4	assess the internet
CO5	develop simple and linear regression

Core Elective – I   Internet Security (P21IT2E1A)

CO No.	Course Outcome
CO1	to understand the fundamentals of internet and its security issues, protection mechanisms
CO2	apply security policy methods
CO3	Analyze firewalls and proxy servers
CO4	evaluate various encryption methods and filtering policies
CO5	create virtual private networks

Core Elective –I   Cloud Computing (P21IT2E1B)

CO No.	Course Outcome
CO1	learn basic ideas of cloud computing
CO2	interpret various cloud services
CO3	deduce the virtualization for cloud
CO4	evaluate various security applications in clouds
CO5	design mobile internet devices

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Core Elective- I   **Internet Of Things (P21IT2E1C)**

CO No.	Course Outcome
CO1	understand the basic concept of internet of things
CO2	discover unified data standards
CO3	focus on IOT protocols
CO4	evaluate the working of raspberry Pi & arduino
CO5	design IOT clouds storage models

Second Year

Third Semester

CORE-7   **Research Methodology (P20IT307)**

CO No.	Course Outcome
CO1	understand the foundation and understanding of research and characteristics of scientific methods
CO2	implementing the hypothesis testing
CO3	explaining good research designs
CO4	use of tools/techniques for research
CO5	interpretation of data and paper writing

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Core – 8   **Python for Data Science (P20IT308)**

CO No.	Course Outcome
CO1	Identify the need for data science and solve basic problems using python built-in data types and their methods.
CO2	Design an application with user-defined modules and packages using oop concept
CO3	Employ efficient storage and data operations using numpy arrays.
CO4	Apply powerful data manipulations using pandas.
CO5	Do data preprocessing and visualization using pandas

Core-9   **Android Programming (P20IT309)**

CO No.	Course Outcome
CO1	learning the fundamentals of android programming
CO2	experimenting activities, fragments and intents
CO3	analyzing android user interface with views
CO4	assessing code completion
CO5	creating helper methods, storage option, databases

Core lab-5   **Android Programming Lab (P20IT3P5)**

CO No.	Course Outcome
CO1	reviewing menus and views
CO2	executing gui applications
CO3	analyze the web and own content provider
CO4	experimenting file storage
CO5	develop a sqlite database and gaming applications

Core Elective – II   Compiler Design (P20IT3E2A)

CO No.	Course Outcome
CO1	to learn the various phases of compiler
CO2	executing finite automata and type checking
CO3	explaining symbol tables and register allocation
CO4	assessing translations
CO5	building parse tables, generating code from expressions

Core Elective – II(B)   Cryptography And Network Security (P20IT3E2B)

CO No.	Course Outcome
CO1	understand the fundamentals of networks security, security architecture, threats and vulnerabilities
CO2	apply the block cipher principles and the data encryption standard
CO3	explaining block cipher modes of operation
CO4	experimenting various number theories
CO5	simulating message authentication and hash functions

Core Elective – II(C)   Mobile Computing (P20IT3E2C)

CO No.	Course Outcome
CO1	understand the concepts of wireless transmission and telecommunication systems
CO2	executing wap programs
CO3	illustrating IEEE 802.11 architecture
CO4	assessing routing algorithms
CO5	designing wml cards

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Open Elective   **Operating System and Advanced Networking (P20IT3OE)**

CO No.	Course Outcome
CO1	to learn the basics concepts of operating system and networking
CO2	examining the scheduling methods and allocation
CO3	analyze the structure of file systems and topologies
CO4	experimenting the routing protocols and its configuration
CO5	building file system and network security

Skill Enhancement   **Angular (P20IT3S1)**

CO No.	Course Outcome
CO1	understanding about Angular
CO2	concern related Services and Directives
CO3	explore the Expressions and Modules in Angular
CO4	appraise forms and Creating Forms
CO5	building and Executing Angular JS Applications

Self Study Course   **MongoDB (P20IT3SS)**

CO No.	Course Outcome
CO1	defining mongo DB database
CO2	executing aggregation commands
CO3	appraising various queries and operators
CO4	experimenting pipeline operation and data modeling
CO5	designing mongo DB databases