

PROGRAMME SPECIFIC OUTCOMES, PROGRAMME OUTCOMES AND COURSE OUTCOMES

PG DEPARTMENT OF INFORMATION TECHNOLOGY / M.Sc., (IT)

M.Sc., INFORMATION TECHNOLOGY		
PSOs	M.Sc., Information Technology / PIT29 / PROGRAMME SPECIFIC OUTCOMES	
PSO1	Gaining ability to work out effective and efficient real time solutions using acquired knowledge in Computer Science domain including theory, programming, algorithms, databases and web development.	
PSO2	Pursuing lifelong learning and do research as computing experts and scientists to meet the requirement of corporate world and industry standard to provide solutions to industry, society and business.	
PSO3	Acquiring professional skills in software design process and practical competence in board range of open source programming languages to withstand technological change and provide solutions to new ideas and innovations.	
PSO4	Acquiring the knowledge of advanced programming skills and distributed environmental need for sustainable development.	
PSO5	Pursuing careers in IT industry/consultancy/research and development, teaching and allied areas related to Information Technology.	
M.Sc., Information Technology / PIT29 / PROGRAMMES OUTCOMES		
POs	Description of POs	
PO1	Developing creativity and problem solving skills with the knowledge of computing and mathematics.	
PO2	Designing algorithms and develop software to aid solutions to industry and governments.	
PO3	Reviewing the latest technology and tool handling mechanism	
PO4	Analyzing the outcome to solve global environment related issues.	
PO5	Applying the knowledge in lifelong learning journey to equip themselves.	
PO6	Becoming computer professionals and serving with ethical values.	
PO7	Understanding the methods to communicate effectively and work collectively..	
M.Sc., Information Technology / PIT29 / COURSE OUTCOMES		
	Description of COs	Bloom's Taxonomy / Cognitive Domain
PITT11	Programming in C & C++	
CO1.	Understanding the fundamentals of C programming.	Comprehension (Level 2)
CO2.	Implementing different operations on arrays, functions, pointers, structures, union fields.	Application (Level 3)
CO3.	Remembering the characteristics of Procedure and Object Oriented Programming Languages.	Knowledge(Level 1)
CO4.	Becoming able to program using C++ features such as Operator Overloading, Virtual functions, Files, etc.	Application (Level 3)
CO5.	Applying the concepts in object oriented programming in terms of software reuse and managing complexity to solve real-world problem.	Application (Level 3)

PITT12 Data Structures and Algorithms		
CO1.	Remembering and understanding the fundamental data structures and implement them using programming languages.	Comprehension (Level 2)
CO2.	Understanding and applying the time complexity of different problems.	Application (Level 3)
CO3.	Understanding efficient data structures and applying them to solve the problem	Application (Level 3)
CO4.	Analyzing and evaluating the various algorithms	Analysis/Evaluation (Level 4 / Level5)
CO5.	Understanding and creating data structures and algorithms for various domains.	Creation (Level 6)
PITT13 Digital Principles and Computer Organization		
CO1.	Learning the basic structure of number system methods like binary, octal and hexadecimal understanding the arithmetic and logical operators	Knowledge (Level 1)
CO2.	Defining the functions to simplify the boolean equations using logic gates.	Knowledge (Level 1)
CO3.	Understanding various data transfer techniques in digital computer and control unit operations.	Comprehension (Level2)
CO4.	Comparing the functions of the memory organization.movements on English literature	Analysis (Level 4)
CO5.	Analyzing architectures and computational designs concepts related to architecture organization and addressing modes' Registers.	Analysis (Level 4)
PITP11 C, C++ and Data Structures Lab		
CO1.	Demonstrating the concepts of pointers	Application (Level 3)
CO2.	Creating C program for linear data structure operations and its applications.	Creation (Level 6)
CO3.	Creating programs using various sorting algorithms & searching methods.	Creation (Level 6)
CO4.	Understanding the fundamentals of C++ programming structure, function overloading and constructors.	Analysis (Level 4)
CO5.	Designing a program using C++ features such as Classes, Objects, Operator overloading, Inheritance, Polymorphism etc.	Application (Level 3)
PITT21 Advanced Operating System		
CO1.	Understanding the design issues associated with operating systems.	Knowledge(Level 1)
CO2.	Mastering various process management concepts including scheduling, deadlocks and distributed file systems.	Application (Level 3)
CO3.	Preparing Real Time Task Scheduling.	Create (Level 6)
CO4.	Analyzing Operating Systems for Handheld Systems.	Evaluate (Level 5)
CO5.	Analyzing Operating Systems like LINUX and iOS	Create(Level 6)
PITT22 Java Programming		
CO1.	Understanding the concept of java programming.	Knowledge(Level 1)
CO2.	Understanding JDBC and RMI concepts.	Application (Level 3)

CO3.	Applying and analyzing java in Database.	Application/Analysis (Level 3/Level 4)
CO4.	Handling different event in java using the delegation event model, event listener and class.	Evaluation (Level 5)
CO5.	Designing interactive applications using java servlet, JSB and JDBC.	Creation(Level 6)
PITT23 Computer Networks		
CO1.	Understanding the data communication system, components and the purpose of layered architecture.	Knowledge(Level 1)
CO2.	Becoming familiar with the functionality of each layer of OSI and TCP/IP reference model.	Comprehension (Level 2)
CO3.	Building up a clear concern on the networking technologies.	Application (Level 3)
CO4.	Working with internet structure	Application(Level 3)
CO5.	Understanding the Firewalls and can see how standard problems are solved and the use of cryptography and network security.	Comprehension (Level 2)
PITT22 Programming in JAVA Lab		
CO1.	Understanding the implement concepts of java using HTML forms, JSP & JAR.	Knowledge (Level 1)
CO2.	Becoming capable of implementing JDBC and RMI concepts.	Application (Level 3)
CO3.	Developing the ability to write Applets with Event handling mechanism.	Analysis (Level 4)
CO4.	Creating interactive web based application using Servlets and JSP.	Evaluation (Level 5)
CO5.	Implementing Client Server Networking	Synthesis (Level – 6)
PITT31 Relational Database Management System		
CO1.	Understanding the basic concepts of Relational data Model, Entity- Relationship Model and Process of Normalization	Knowledge (Level 1)
CO2.	Understanding and constructing database using Structured Query Language (SQL) in Oracle9i environment.	Application (Level 3)
CO3.	Learning basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions.	Analysis (Level 4)
CO4.	Understanding and using built-in functions and enhance the knowledge of handling multiple tables.	Application (Level 3)
CO5.	Attaining a good practical skill of managing and retrieving of data using Data Manipulation Language(DML).	Analysis (Level 5)
PITT32 Web Technology		
CO1.	Understanding the concept of .NET frame work and scripting language	Comprehension
CO2.	Choosing, understanding, and analyzing any suitable real time web applications.	Application (Level 3)
CO3.	Using an understanding of elementary application of principles and enable the students speak and write in English fluently on various topics. Integrating .NET languages to develop web applications.	Creation (Level 6)
CO4.	Developing and deploying real time web application in web servers and in the cloud..	Creation (Level 6)
CO5.	Extending this knowledge to .NET platform.	Application (Level 3)

PITP33		RDBMS LAB
CO1.	Understanding and appreciating and effectively explain the concepts of database technologies.	Remember(Level 1)
CO2.	Designing and implementing a database schema for a given problem domain.	Application(Level 3)
CO3.	Developing a query using SQL DML/DDDL	Analysis(Level 4)
CO4.	Declaring and enforcing integrity constraints.	Knowledge (Level 1)
CO5.	Designing PL/SQL such as Stored Procedures, functions, packages, cursors.	Create(Level 6)
PITT33		Software Engineering
CO1.	Understanding the basic concepts of software engineering.	Remember(Level 1)
CO2.	Applying the software engineering models in developing software application.	Application(Level 3)
CO3.	Applying software engineering principles and approach used in industry.	Application (Level 3)
CO4.	Applying the gained knowledge on how to do a software project with in-depth analysis.	Application (Level 3)
CO5.	Inculcating knowledge on software engineering concepts in turn gives roadmap to design a new software project.	Analysis(Level 5)
PITT41		Digital Image Processing
CO1.	Understanding the fundamentals of Digital Image Processing	Remember(Level 1)
CO2.	Understanding the mathematical foundations of digital image representation, image acquisition, image transformation, and image enhancements.	Application(Level 3)
CO3.	Applying, Designing and Implementing and get solutions for digital image processing problems.	Application (Level 3)
CO4.	Applying the concepts of filtering and segmentation for digital image retrieval.	Create (Level 6)
CO5.	Exploring the concepts of Multi-resolution process and recognize the objects in an efficient manner.	Create (Level 6)
PITT42		Mobile Computing
CO1.	Understanding the need and requirements of mobile communication.	Remember(Level 1)
CO2.	Focusing on mobile computing applications and techniques.	Application(Level 3)
CO3.	Demonstrating satellite communication in mobile computing.	Analysis (Level 4)
CO4.	Analyzing about wireless local loop architecture.	Evaluation (Level 5)
CO5.	Analyzing various mobile communication technologies.	Evaluation (Level 5)
PITE11		Computer Graphics
CO1.	Knowing and discussing hardware system architecture for computer graphics.	Remember(Level 1)
CO2.	Understanding the current 3D graphics API.	Application(Level 3)
CO3.	Becoming capable of discussing future trends in computer graphics	Application (Level 3)
CO4.	Practicing and working out computer graphic concepts & APIs.	Synthesis (Level – 6)
CO5.	Designing a model and rendering graphical data.	Creation (Level 6)
PITE11		Soft Computing

CO1.	Understand soft computing techniques and their applications.	Knowledge (Level 1)
CO2.	Comprehending the pattern classification in neural networks.	Comprehension (Level 3)
CO3.	Analyzing various neural network architecture	Analysis (Level 4)
CO4.	Analyzing fuzzy relation and fuzzy logic & its applications.	Analysis (Level 4)
CO5.	Applying and analyzing fuzzy logic in real time applications.	Creation (Level 6)
PITE22 Data Warehousing and Data Mining		
CO1.	Understanding the basic data mining techniques and algorithms.	Comprehension (Level 2)
CO2.	Comprehending the association rules, clustering techniques and data warehousing contents.	Comprehension (Level 2)
CO3.	Comparing and evaluating different data mining techniques	Evaluation (Level 5)
CO4.	Designing data warehouse with dimensional modeling and applying OLAP operations.	Application (Level 4)
CO5.	Identifying appropriate data mining algorithms to solve real world problems.	Creation (Level 6)
PITE22 Cryptography and Network Security		
CO1.	Gaining knowledge of the process of cryptography algorithms	Knowledge (Level 1)
CO2.	Comparing and applying different encryption and decryption techniques to solve problems related to confidentiality and authentication.	Application (Level 3)
CO3.	Applying and analyzing appropriate security techniques to solve network security problem.	Analysis (Level 4)
CO4.	Exploring suitable cryptographic algorithms.	Evaluation (Level 5)
CO5.	Working out different digital signature algorithms to achieve authentication and design secure applications.	Creation (Level 6)
PITE33 Software Project Management		
CO1.	Understanding the basic concepts of Software project management.	Remember (Level 1)
CO2.	Identifying the different project contexts and suggesting an appropriate management strategy.	Application (Level 3)
CO3.	Demonstrating through application, knowledge of the key project management skills.	Evaluation (Level 5)
CO4.	Analyzing a comparison on product versus process quality management.	Analysis (Level 5)
CO5.	Performing case studies on cost estimation models like COCOMO.	Create (Level 6)
PITE33 Big Data And Analytics		
CO1.	Comprehending the concept of Big data evaluation.	Comprehension (Level 2)
CO2.	Acquiring knowledge of the concept of HDFS.	Knowledge (Level 1)
CO3.	Installation of R and Hadoop.	Evaluation (Level 5)
CO4.	Apply map reduce concepts to process big data.	Analysis (Level 5)
CO5.	Design big data applications using hadoop components and R programming.	Create (Level 6)