FATIMA COLLEGE

(Autonomous)
Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' (CGPA 3.61) by NAAC (Cycle - IV)
Mary Land, Madurai - 625018, Tamil Nadu

PROGRAMME OUTCOMES AND COURSE OUTCOMES

2022 – 2023

NAME OF THE PROGRAMME:M.Sc Information Technology   PROGRAMME CODE: PSIT

Programme Outcomes:

PO 1	Apply acquired scientific knowledge to solve major and complex issues in the society/industry
PO 2	Attain research skills to solve complex cultural, societal and environmental issues
PO 3	Employ latest and updated tools and technologies to solve complex issues.
PO 4	Demonstrate Professional Ethics that foster Community, Nation and Environment Building Initiatives.

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Course Outcomes:

Course Code	Course Title	Course Outcomes
21PG1IT1	Java & J2ME	CO1: To understand the structure and model of the Java programming language. CO2: To explain the concepts of Packages, Interfaces and strings. CO3: To develop software implementing Exception handling mechanisms. CO4: To design software for database connectivity and able to design GUI applications. CO5: To implement server side programming using SERVLETS.
21PG1IT2	Soft Computing	CO1: Understand basic model in soft computing. CO2: Elaborate artificial neural network concepts. CO3: Be familiar with design of various neural networks. CO4: Understand genetic programming. CO5: Exposed to various hybrid systems.
22PG1IT3	Data Science using R Programming	CO1: To understand the basic concepts in R- Programming. CO2: Illustrate various statements used in R-Programming for data management.

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		CO3: Analyze various techniques and models to import and export the data set. CO4: To know about the Linear And Logistic Regression, Unsupervised & Advanced Methods. CO5: Implementation of documentation and effective presentations.
21PG1IT4	Distributed Operating Systems	CO1: Understand the core concepts of distributed systems. CO2: Analyze various message passing mechanisms with its model. CO3: Identify the inherent difficulties that arise due to distribution of computing resources. CO4: Explain migration with the process management policies. CO5: Explain the basic concepts, design and structure of the LINUX operating system.
21PG1IT5	LAB I: Java & J2ME	CO1: To understand the concept of Object Oriented Programming & Java Programming Constructs. CO2: To practice the concepts of operators, classes, objects, inheritance, packages ,Enumeration and various keywords. CO3: To apply exception handling mechanisms.

		CO4: To design the applications of Java & Java applet, Swings and JDBC.
		CO5: To Analyze and implement J2ME
22PG1IT6	LAB II : Data Science using R-Programming	CO1:Implement Basic Data Access, List
		CO2: Develop programs using Array, function.
		CO3: Use Linear Regression and ANOVA CO4: Understand Graphical Configurations.
		CO5: Develop program using simulation and statistical method.
21IT1EDC	Animation Software	CO1: Understand basic concepts in Alice.
		CO2: Construct a scene.
		CO3: Build program in Alice using looping and branching.
		CO4: Apply event handlers in alice.
		CO5: Develop 3D animations
21PG2IT7	Cyber Security	CO1:Analyze and evaluate the cyber security needs of an organization
		CO2: Measure the performance and troubleshoot cyber security systems.
		CO3: Comprehend and execute risk management processes, risk treatment methods, and key risk and performance indicators.
		CO4: Design and develop a security architecture for an organization

		CO5: Design operational and strategic cyber security strategies and policies.
21PG2IT8	Digital Image Processing	CO1: Understand the representation of digital image and its manipulations. CO2: Analyze image sampling and quantization requirements and implications. CO3: Describe various Transformation and Filtering Techniques. CO4: Demonstrate Restoration And Reconstruction models. CO5: Utilize Image Compression And Segmentation for efficient storage.
21PG2IT9	Android Programming	CO1: Design scripts to meet given interface and media control requirements. CO2: Utilize variables, properties and other code elements appropriately to implement the code design. CO3: Implement and evaluate techniques for the installation of mobile applications. CO4: Explain the principles of technologies which support media production and delivery on a variety of platforms.

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		CO5: Evaluate alternative mobile frameworks, and contrast different programming platforms.
21PG2IT10	LAB III : Digital Image Processing	CO1: Demonstrate Fundamental Steps involved in Digital Image Processing. CO2:Analyze and use Mathematical Tools for Digital Image Processing. CO3: Apply Intensity Transformation functions and Spatial filtering methods. CO4: Utilise Color Image Processing with different Color Models. O5: Implement Image Segmentation Techniques and Image Compression Techniques using Huffman , Golomb and Arithmetic coding algorithms.
21PG2IT11	LAB IV: Android Programming	CO1: Develop enterprise-level mobile solutions. CO2:Install and configure Android application development tools. CO3:Demonstrate Save State information across important operating system events. CO4:Develop advanced application programs using Android. CO5: Design and develop mobile applications.
21PG2ITE1	Adhoc Network	CO1: Understand the design issues in ad hoc and sensor networks.

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		CO2:Learn the different types of MAC protocols.
		CO3: Be familiar with different types of adhoc routing protocols.
		CO4: Be expose to the TCP issues in adhoc networks.
		CO5: Learn the architecture and protocols of wireless sensor networks.
21PG2ITE2	Machine Learning	CO1: Have a good understanding of the fundamental issues and challenges of machine learning concept.
		CO2: Understand, Analyse and identify the strengths and weaknesses of many popular machine learning approaches.
		CO3: Aware about the underlying mathematical relationships across Machine Learning algorithms and the paradigms of supervised and un-supervised learning.
		CO4: Ability to design and implement various machine learning algorithms in a range of real-world applications.
		CO5: Perform evaluation of machine learning algorithms and model selection.
21PG2ITE3	Ethical Hacking	CO1:To Understand the fundamental concepts in ethical hacking
		CO2: Analyze different types of protocols.

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		CO3:Discuss the authentication requirements.
		CO4: Explains various types of attacks
		CO5: Analyze the Security issues.
21IT2EDC	Advanced Excel VBA	CO1: Understand fundamentals of VBA CO2: Apply different conditional logics and loops.
		CO3: Build forms with interactivity.
		CO4: Apply Events and Setting in Excel sheets.
		CO5: Develop Procedures and Array concepts.
21PG3IT12	Data Mining and Data Warehousing	CO1: Understand the fundamental concept of Data Mining andanalyze and evaluate the data cleaning, integration , transformation and reduction techniques.
		CO2: Design multidimensional data using Data Warehouse architecture.
		CO3: Analyze and evaluate Classification algorithms.
		CO4: Identify the types of data in Cluster Analysis and categorize the Cluster Methods.
		CO5: Utilize the Data Mining techniques in various real applications and in major issues.
21PG3IT13	Advanced Python	CO1:Understand the basic programming style in python .

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Code	Course	Outcomes
	Programming	CO2: Apply various types of control flow statements in python programs. CO3: Identify the structure and components of a python program. CO4: Analyze Object oriented programming concepts and techniques in python. CO5: Implementing the GUI concepts in Python.
21PG3IT14	LAB V: Data Mining and Data Warehousing	CO1: Utilize Weka tool to evaluate Data Mining algorithms. CO2: Demonstrate pre processing steps involved in different datasets. CO3: Develop the decision tree algorithm using different datasets. CO4: Demonstrate the classification and clusters algorithms using large datasets. CO5: Analyze Data Mining techniques for realistic data.
21PG3IT15	LAB VI: Advanced Python Programming	CO1: Demonstrate the basic concepts of variables expressions. CO2: Develop basic python programs with I/O operations. CO3: Develop programs with function control structure. CO4: Apply strings and lists in python. CO5: Develop python programs with files.
21PG3ITE4	Software Testing	CO1: Discuss various software application domains and different process model used in software development.

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		CO2: Demonstrate the basics of software quality assurance and defect prevention.
		CO3: Compare different testing strategies and tactics.
		CO4: Apply the software testing techniques in commercial environment.
		CO5: Explain high performance testing using Jmeter.
22PG3ITE5	System Software & Compiler Design	CO1:Interpret the concepts of system software and machine architecture.
		CO2: Identify the concepts of loader and linkers
		CO3: Analyse the concepts of working principles of compilers.
		CO4: Experiment Finite Automata for regular expressions.
		CO5: Simplify the expressions using Parser.
21PG3ITE6	Computer Forensics	CO1:Understand basic concepts in Computer forensics.
		CO2:Explain different investigation procedures.
		CO3: Understand different Data acquisition mode.
		CO4: Understand investigation process using computer forensics.
		CO5: Know how to apply forensic analysis tools to recover important evidence for identifying computer crime
21PG3ITE7	Big Data Analytics	CO1: Understand the Characteristics and challenges of Big Data.
		CO2: Describe the concepts of Big Data Analytics.

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		CO3: Utilize Hadoop for Big Data Technologies.
		CO4: Demonstrate MAPREDUCE Programming.
		CO5: Describe types of Recommendation Systems using Big Data Analytics.
21PG3ITE8	Internet Of Things	CO1: Understand the basic concepts of IoT.
		CO2: Discuss physical and logical design of IoT enabled technologies.
		CO3: Analyze how and where IoT can be applied.
		CO4: Compare M2M and IoT.
		CO5: Analyse the features of Python used for IoT implementation.
22PG3ITE9	Algorithm Design and Analysis	CO1: To understand the basic concepts of analysis.
		CO2: Analyze the concept of various searching and traversal techniques.
		CO3: Discuss concept of dynamic programming and greedy method.
		CO4: Explain the concepts of Backtracking, branch and bound methods
		CO5: Apply the algorithm for NP-Hard and NP- complete problems.
21PG3ITSI	Summer Internship	CO1: Identify employment contacts leading directly to a full-time job following course completion.
		CO2: Create communication, interpersonal and other soft skills essential for the job interview process.

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		CO3: Analyze the project requirements and engages in continuing professional development.
		CO4: Analyze a problem and identify the computing requirements appropriate to its solution.
		CO5: Utilizing a new software tool.
19PG4ITPR	Project Work And Viva Voce	CO1: Discuss project development and the associated business processes.
		CO2: Plan as an individual or in a team in development of technical projects.
		CO3: Communicate with engineers and the community at large in written and oral forms.
		CO4: Create effective communication skills for presentation.
		CO5: Analyse problems and formulate solutions.
21PG4IT16	Biometrics	CO1: To understand the basic concepts in R- Programming.
		CO2: Illustrate various statements used in R-Programming.
		CO3: Analyze various techniques to import and export the data set.
		CO4: To know about the aggregate functions.
		CO5: Implementation of R-Programming in current scenario