

**List of Courses having focus on Local, National, Regional and Global Developmental Needs offered by the
M.Sc. Computer Science**

Programme: M.Sc. (Computer Science)						Year:2019-2021 Batch
Course Code	Course Title	Need				Rationale
		Local	National	Regional	Global	
19PCS312	J2EE Technologies		✓			To deploy use of IoT application and connect to the cloud
19PCS313	Digital Image Processing	✓				To implement the fundamental image enhancement algorithms such as histogram modification, contrast manipulation, and edge detection.
19PCS314	Internet of Things				✓	To deploy use of IoT application and connect to the cloud
19PCS315	Programming Lab-VI : J2EE Technologies		✓			To deploy use of IoT application and connect to the cloud
19PCS316	Programming Lab-VII: Digital Image Processing	✓				To implement the fundamental image enhancement algorithms such as histogram modification, contrast manipulation, and edge detection.
19PCS3E1	Artificial Intelligence and Expert Systems				✓	To understand the various searching techniques, constraint satisfaction problem and example problems- game playing techniques.
19PCS3E2	Machine Learning				✓	To analyze how to perform evaluation of learning algorithms and model selection

19PCS3E3	Embedded Systems				✓	To apply the of design real time embedded systems using the concepts of RTOS
19PCS417	Industrial Project Work and Viva voce (Individual)			-	✓	opportunities for students to collaborate or drive their own learning, also teaches them skills such as problem solving, and helps to develop additional skills integral to their future

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20PCS101	Design & Analysis of Algorithms		✓			Analyze major graph algorithms and to employ graphs to model engineering problems
20PCS102	Internet of Things				✓	Evaluate Real World IoT Design Constraints, Industrial Automation in IoT.
20PCS103	Advanced Database Management System		✓			Develop a database application system as part of a team
20PCS104	Data Mining and Warehousing		✓			Analyze the techniques of clustering, classification, association finding, feature selection and visualization to real world data
20PCS105	Programming Lab - I: Design & Analysis of Algorithms & Advanced DBMS		✓			Prove appropriate data structure is applied to specified problem definition
20PCS106	Programming Lab -II: Internet of Things				✓	Design IoT applications in different domain and be able to analyze their performance

20PCS207	Advanced Java Programming		✓			Validate server side java programs using Servlets and JSP
20PCS208	Advanced Networks		✓			Analyze the problems and solutions associated with delivery and forwarding of packets
20PCS209	Cloud and Big Data Analytics				✓	Present the broad perceptive of cloud architecture and model
20PCS210	Programming Lab -III : Advanced Java Programming		✓			Analyze web application using Servlet, Java Server Pages and RMI
20PCS211	Programming Lab-IV : Networks		✓			Understand the various routing techniques helps in analyzing and interpreting the quality of networks
20PCS2P1	Pilot Project – I				✓	Develop entire new software system or to enhance/modify functionalities of existing software or to provide customization based on existing technology/framework to fulfill specific requirements.
20PCS2E3	Mobile Computing				✓	Able to apply problem solving approaches to work challenges and make decisions using sound engineering methodologies
20PCS312	Advanced Python Programming		✓			Evaluate and apply the functions and python libraries to analyze and solve various data analytics problems

20PCS313	Android Programming				✓	Deploy a basic application that acts as a working example with various example using SQLite database
20PCS314	Network Security & Cryptography		✓			Evaluate various security practice and system security
20PCS315	Programming Lab-V : Advanced Python Programming		✓			Validate how databases are integrated with components ,modular programming and the design of user interfaces
20PCS316	Programming Lab-VI: Android Programming				✓	Implement the features of Java to build Android applications and use the development tools in the Android development environment
20PCS3E1	Artificial Intelligence And Expert Systems		✓			Evaluate and design a real world problem for implementation and understand the dynamic behavior of a system
20PCS4P2	Project Work and Viva voce (Individual)				✓	

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