

Course Articulation Matrix of Programing for problem Solving Using C(RPL2B001)(2nd Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	Introduction to Simple Algorithm for Arithmetic and logical problems and translate into programs.	3	2	2	1	2	-	1	-	2	-	2	3	3	1	2
CO 2	Design and implementation of conditional branching, iteration, recursion and divide conquer approach	3	2	2	1	2	-	1	-	2	-	2	3	3	1	2
CO 3	Develop programs using array, pointer, matrix addition, multiplication to formulate algorithm and programs	3	2	2	1	2	-	1	-	2	-	2	3	3	-	1
CO 4	Develop programs for searching, sorting algorithm and to solve numerical method problems, functions and simple integration	3	2	2	1	2	-	1	-	2	-	2	3	3	1	1

Course Articulation Matrix of Datastructure (RCS3C002)(3rd sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	Demonstrate and classify various data structures and their primitive operations	2	2	2	2	2				2		2	2	2		
CO 2	Apply the concepts of arrays and strings in sorting and pattern matching applications	3	3	3	2	2				2		2	2	3		1
CO 3	Implement the operations of linear data structures like stacks, queues and linked lists.	3	3	2	2	2				2		2	2	3	1	1
CO 4	Demonstrate primitive operations on different types of trees and their applications	3	3	2	2	2				2		2	2	3	1	1

Course Articulation Matrix of Object Oriented Programming using Java(ROP3B001)(3rd Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	Understand object oriented programming	3	2	2	2	1				2		2	2	3		3
CO 2	concepts using C++	3	2	2	2	2				2		2	2	3		3
CO 3	Apply fundamental concepts of OOP in JAVA	3	2	3	2	3				2		2	2	3	3	3
CO 4	Implement JAVA programs using Java JDK environment	3	2	3	2	3				2		2	1	3	2	3

Course Articulation Matrix of Design and Analysis of Algorithm(RCS4C002)(4th Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	Analyze the asymptotic performance of algorithms.	3	3	2	2	2				2			2	3	1	
CO 2	Write rigorous correctness proofs for algorithms.	3	3	2	2	2				2			1	3	3	2
CO 3	Demonstrate a familiarity with major algorithms and data structures.	3	3	3	2	2				2			1	3	3	3

CO 4	Apply important algorithmic design paradigms and methods of analysis. Synthesize efficient algorithms in common engineering design situations	3	3	3	2	2					2			1	3	3	3
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Course Articulation Matrix of Computer Organization & Architecture(RCS4C003)(4th Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	How Computer Systems work & the basic principles	3	2	2	1	2		1		1		1	2	3	2	1
CO 2	Instruction Level Architecture and Instruction Execution.	3	2	2	1	3		1		2			2	3	1	2
CO 3	The current state of art in memory system design	3	2	3	1	2		1		2		1	2	3	1	2
CO 4	To provide the knowledge on Instruction Level Parallelism and Concepts of advanced pipelining techniques.	3	2	2	1	2		1		1			1	3	1	1

Course Articulation Matrix of Data Communication(RCS4D001)(4th Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	To have a detailed study of various analog and digital modulation and demodulation techniques.	2	2	2	2	2					1		2	3	1	2
CO 2	To have a thorough knowledge of various multiplexing schemes and Data communication protocols.	3	3	3	2	2					2		3	3	1	2
CO 3	To know about the standards and mechanisms of television systems	2	1	2	2	2					1		2	3	2	2
CO 4	Knowledge of working of basic communication systems. Ability to evaluate alternative models of communication system design..	3	3	2	3	3					2		1	3	2	3



Course Articulation Matrix of Formal Languages & Autometa Theory(RCS5C001)(5th Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	To introduce concepts in automata theory and theory of computation	3	3	3	2	2							2	3	1	
CO 2	To identify different formal language classes and their relationships	2	3	3	2	2							2	2	2	
CO 3	To design grammars and recognizers for different formal languages	2	2	2	2	2		1					1	2	2	2
CO 4	Ability to relate practical problems to languages, automata, and computability. Ability to apply mathematical and formal techniques for solving problems	2	2	2	2	2		1					1	2	2	2

Course Articulation Matrix of Database Management Systems(RCS5C002)(5th Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	Ability to Install, configure, and interact with a relational database management system.	2	-	2	-	-	-	-	-	1	-	-	1	3	1	1
CO 2	Ability to master the basics of SQL and construct queries using SQL	3	2	3	2	-	-	1	-	1	-	-	2	2	1	1

CO 3	Ability to design and develop a large database with optimal query processing	2	1	1	1	3	-	-	-	2	-	-	3	3	3	3
CO 4	To know the fundamental concepts of transaction processing techniques. To understand the internal storage structures in a physical DB design	1	-	3	1	3	-	1	1	2	-	-	2	2	3	2

Course Articulation Matrix of Operating Systems(RCS5C003)(5th Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	Identify the functionalities of OS and their categories	3		1									2	3		1
CO 2	Evaluate multithread techniques and process scheduling algorithms	2	3	3	2		1	1					3	2	3	2
CO 3	Demonstrate suitable techniques for resource management	3	3	3	2		1	1					2	3	3	1
CO 4	Evaluate file system allocation and memory management techniques	3	3	3	2		1	1					2	3	2	2

Course Articulation Matrix of Advanced Computer Architecture(RCS5D001)(5th Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	Ability to analyze the abstraction of various advanced architecture of a computer	2											1	2		1
CO 2	Ability to analyze the multi-processor architecture & connection mechanism.	2											1	2		1
CO 3	Ability to work out the tradeoffs involved in designing a modern computer system.	2	1	1									1	2		1
CO 4	To understand the advance hardware and software issues of computer architecture. Understand multi-processor memory management	2	1	1									1	2		1

Course Articulation Matrix of Computer Graphics(RCS5D006)(5th Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	Ability to understand the various computer graphics hardware and display technologies.	2	1	2	1	2							1	2	2	2
CO 2	Ability to implement various 2D and 3D objects transformation techniques	2	2	2	1	3				1			2	2	2	2
CO 3	Ability to apply 2D and 3D viewing technologies into the real world applications	2	3	3	2	3			1				2	2	2	2
CO 4	To know 2D raster graphics techniques, 3D modelling, geometric transformations, 3D viewing and rendering. Exploration of fundamental concepts in 2D and 3D computer graphics.	2	1	1	1	3			1	1			1	2	2	3



Course Articulation Matrix of Software Engineering(RCS6C001)(6th Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	Ability to relate practical problems to software engineering concepts.	3	2	2	2	2	3		3	1	1		2	1	1	2
CO 2	Ability to model problems using standard software development models.	3	2	2	2	2	2		1	2	2		2	1	2	2
CO 3	Ability to apply software engineering skills in real-world problem solving. Apply, design, implement, verify, validate and maintain software systems with metrics	3	2	3	3	2	1	1	1	2	1	1	2	1	3	2
CO 4	To apply software engineering knowledge in real-world problem solving. To identify different software development models	2	2	3	3	3		1	1	1	1	1	2	2	2	3

Course Articulation Matrix of Compiler Design(RCS6C002)(6th Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	Ability to learn fundamentals of compiler	2											1	1		1
CO 2	Ability to understand different phases of compiler design.	1				2							1	1		1
CO 3	Ability to know the details of each phase of compiler design.	3	2	2	1	2							1	2	1	1

CO 4	To learn fundamentals of compiler. To know the details of each phase of compiler design	3	1	1	1	2								2	2	2	1
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Course Articulation Matrix of Cloud Computing(RCS6D003)(6th Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	Ability to develop the fundamentals of cloud computing	3	2	2	2	3							2	3	1	2
CO 2	Ability to understand architecture of cloud	3	2	2	2	3							3	3	1	2
CO 3	Ability to comprehend, design, and develop cloud system using some state-of-the-art platform	3	2	2	2	3							2	3	2	2
CO 4	To understand the simulation of cloud system using some state-of-the-art platforms and understand the architecture of various cloud	3	3	2	3	1							1	3	2	3

Course Articulation Matrix of Cyber Law & Ethics(RCS7E004)(7th Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	Ability to identify Cyber of attck,classification mallware,threads,intrusion detection system	3	2	2	2	3	2	2		3			3	3	2	2
CO2	To implement biometric authentication method,information security,network security ,cloud security	3	2	2	2	2	2	2		3			3	3	1	2
CO 3	To understand cyber physical system security,block chain technology	3	2	2	2	2	2	2		3			3	3	1	2
CO 4	To learn investication methods criminal profiling and cyber trials	3	2	2	2	2	2	2		3			3	3	1	2

Course Articulation Matrix of Software Project management(RCS7D001)(7th Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	Ability to relate practical problems to software engineering concepts.	1					3		3	1	1		2	1	1	2
CO2	Ability to model problems using standard software development models.	1			2	1	2		1	2	2		2	1	2	2
CO 3	Ability to apply software engineering skills in real-world problem solving. Apply, design, implement, verify, validate and maintain software systems with metrics	2	1	3	3	2	1	1	1	2	1	1	2	1	3	2
CO 4	To apply software engineering knowledge in real-world problem solving. To identify different software development models	2	2	3	3	1	1	1	1	1	1	1	2	2	2	3

Course Articulation Matrix of Internet of Things(RIT7D001)(7th Sem)

COs	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO 1	Interpret the impact and challenges posed by IoT networks leading to new architectural models.	3	2	2	1	3	1	2		2			1	1		1
CO2	Compare and contrast the deployment of smart objects and the technologies to connect them to network.	3	2	3	1	3	1	2		2			2	1		1

CO 3	Appraise the role of IoT protocols for efficient network communication.	3	2	2	2	3	1	2		2			2	2		1
CO 4	Elaborate the need for Data Analytics and Security in IoT.	3	3	2	2	1		2		2			2	2		1