ACADEMIC CURRICULA

UNDERGRADUATE/ INTEGRATED POST GRADUATE DEGREE PROGRAMMES

(With exit option of Diploma)

(Choice Based Flexible Credit System)

Regulations 2021

Volume – 1

(Revised on July 2024)

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University u/s 3 of UGC Act, 1956)

Kattankulathur, Chengalpattu District 603203,

Tamil Nadu, India

50. Integrated M.Tech. in Computer Science and Engineering with Specialization in Cognitive Computing

50. (a) Mission of the Department

Mission Stmt – 1	*To envision in creating, acquiring, and disseminating engineering knowledge on computational intelligence to elevate a student into a professional by imparting knowledge on mathematics, computing sciences, artificial intelligence, and software engineering along with the skills of cognitive computing.*
Mission Stmt – 2	*To offer a unique learning environment through world class faculty, curriculum, modernized lab facilities, and an interactive classroom environment with real-time experience from industrial experts that leads to a computing career in the latest technologies.*
Mission Stmt – 3	*To uplift the innovative research and development in computational intelligence and its allied fields by collaborating with renowned academic institutions and industries.*
Mission Stmt – 4	*To produce graduates who are global innovators and leaders in the development of computational intelligence-based systems, along with the commitment to ethical responsibilities and lifelong learning.*

50. (b) Program Educational Objectives (PEO)

PEO – 1	*Graduates will be able to perform in technical/managerial roles ranging from design, development, problem solving to production support in software industries and R&D sectors.*
PEO – 2	*Graduates will be able to successfully pursue higher education in reputed institutions.*
PEO – 3	*Graduates will have the ability to adapt, contribute and innovate new technologies and systems in the key domains of Computer Science and Engineering.*
PEO – 4	*Graduates will be ethically and socially responsible solution providers and entrepreneurs in Computer Science and other engineering disciplines.*
PEO – 5	*Graduates will possess the ability to adapt, contribute and innovate new technologies and systems in the key domains of Computer Science and Engineering*

50. (c) Mission of the Department to Program Educational Objectives (PEO) Mapping

	Mission Stmt. - 1	Mission Stmt. - 2	Mission Stmt. - 3	Mission Stmt. - 4	Mission Stmt. - 5
PEO - 1	3	-	-	-	1
PEO - 2	-	-	2	-	-
PEO - 3	-	3	3	-	-
PEO - 4	-	-	-	2	3
PEO - 5	-	-	-	3	3

3 – High Correlation, 2 – Medium Correlation, 1 – Low Correlation

50. (d) Mapping Program Educational Objectives (PEO) to Program Outcomes (PO)

	Program Outcomes (PO)												Program Specific Outcomes (PSO)		
	1	2	3	4	5	6	7	8	9	10	11	12			
	Engineering Knowledge	Problem Analysis	Design/development of solutions	Conduct investigations of complex problems	Modern Tool Usage	The engineer and society	Environment & Sustainability	Ethics	Individual & Team Work	Communication	Project Mgt. & Finance	Life Long Learning	PSO-1	PSO-2	PSO-3
PEO - 1	3	-		1	-	2	-	3	2	3	-	-	2	-	-
PEO - 2	-	2	2	-	3	-	3	2	-		-	-	-	2	-
PEO - 3	-	3	3	2	-	-	-	-	-	2	-	3	-	-	2
PEO - 4	-	2	3	-	-	3	2	-	2	-	2	2	-	-	2
PEO - 5	3	-	-	3	-	3	-	-	-	-	-	3	-	-	3

3 – High Correlation, 2 – Medium Correlation, 1 – Low Correlation

PSO – Program Specific Outcomes (PSO)

PSO - 1	*To understand, analyze, design, and develop computing solutions by applying fundamental concepts of computer science and engineering.*
PSO - 2	*To apply computing principles, skills and practices to develop solutions using logical and reasoning skills, for real life problems.*
PSO - 3	*Ability to utilize Cognitive principles to design and develop cutting edge solutions for meeting the current demand of the industry.*

50. (e) Program Structure: Integrated M.Tech. in Computer Science and Engineering with Specialization in Cognitive Computing

Humanities & Social Sciences including Management Courses (H)

Course Code	Course Title	Hours / Week L	T	P	C
21LEH101T	Communicative English	2	1	0	3
21LEH102T	Chinese	2	1	0	3
21LEH103T	French				
21LEH104T	German				
21LEH105T	Japanese				
21LEH106T	Korean				
21LEH107T	Spanish				
21LEH108T	Russian				
21GNH101J	Philosophy of Engineering	1	0	2	2
21PDH209T [1]	Social Engineering	2	0	0	2
21GNH401T	Behavioral Psychology	2	1	0	3
				Total Credits	13

Engineering Science Courses (S)

Course Code	Course Title	Hours / Week L	T	P	C
21EES101T	Electrical and Electronics Engineering	3	1	0	4
21MES101L [1]	Basic Civil and Mechanical Workshop	0	0	4	2
21MES102L [1]	Engineering Graphics and Design	0	0	4	2
21CSS101J	Programming for Problem Solving	3	0	2	4
21CSS201T	Computer Organization and Architecture	3	1	0	4
21DCS201P [1]	Design Thinking and Methodology	1	2	0	3
21CSS303T	Data Science	2	0	0	2
				Total Credits	21

Non Credit Courses (M)

Course Code	Course Title	Hours / Week L	T	P	C
21PDM101L [1]	Professional Skills and Practices	0	0	2	0
21PDM102L [1]	General Aptitude	0	0	2	
21PDM201L [1]	Verbal Reasoning	0	0	2	
21PDM202L [1]	Critical and Creative Thinking Skills	0	0	2	
21PDM301L [1]	Analytical and Logical Thinking Skills	0	0	2	
21PDM302L [1]	Employability Skills and Practices	0	0	2	
21CYM101T [1]	Environmental Science	1	0	0	0
21LEM101T [1]	Constitution of India	1	0	0	0
21LEM102T [1]	Universal Human Values – Introduction	1	0	0	0
21LEM201T [1]	Professional Ethics	1	0	0	0
21LEM202T [1]	Universal Human Values-II: Understanding Harmony and Ethical Human Conduct	2	1	0	3
21LEM301T [1]	Indian Art Form	1	0	0	0
21LEM302T [1]	Indian Traditional Knowledge	1	0	0	0
21GNM101L [1]	Physical and Mental Health using Yoga	0	0	2	0
21GNM102L [1]	National Service Scheme				
21GNM103L [1]	National Cadet Corps				
21GNM104L [1]	National Sports Organization				
				Total Credits	03

Basic Science Courses (B)

Course Code	Course Title	Hours / Week L	T	P	C
21PYB102J	Semiconductor Physics and Computational Methods	3	1	2	5
21CYB101J	Chemistry	3	1	2	5
21MAB101T	Calculus and Linear Algebra	3	1	0	4
21MAB102T	Advanced Calculus and Complex Analysis	3	1	0	4
21MAB201T	Transforms and Boundary Value Problems	3	1	0	4
21MAB204T	Probability and Queueing Theory	3	1	0	4
21MAB302T	Discrete Mathematics	3	1	0	4
21BTB102T	Introduction to Computational Biology	2	0	0	2
				Total Credits	32

Professional Core Courses (C)

Course Code	Course Title	Hours / Week L	T	P	C
21CSC101T	Object Oriented Design and Programming	2	1	0	3
21CSC201J	Data Structures and Algorithms	3	0	2	4
21CSC202J	Operating Systems	3	0	2	4
21CSC203P [1]	Advanced Programming Practice	3	1	0	4
21CSC204J	Design and Analysis of Algorithms	3	0	2	4
21CSC205P [1]	Database Management Systems	3	1	0	4
21CSC206T	Artificial Intelligence	2	1	0	3
21CSC301T	Formal Language and Automata	3	0	0	3
21CSC302J	Computer Networks	3	0	2	4
21CSC303J	Software Engineering and Project Management	2	0	2	3
21CSC304J	Compiler Design	2	0	2	3
21CSC305P [1]	Machine Learning	2	1	0	3
21CSC402P [1]	Report Writing	2	0	0	2
21CSC405J	Deep Learning for Cognitive Computing	3	0	2	4
21CSC505T	Computer Graphics and Vision	3	1	0	4
21CSC506J	Computation and Cognition: The Probabilistic Approach	3	0	2	4
21IPC501J [2]	Research Methodology	2	1	2	4
				Total Credits	60

Open Elective Courses
(Any 4 Courses)

Course Code	Course Title	Hours / Week L	T	P	C
21CSO351T	Web Programming	2	1	0	3
21CSO352T	Python Programming	2	1	0	3
21CSO353T	Mobile Application Development	2	1	0	3
21CSO354T	Data Analytics	2	1	0	3
				Total Credits	12

Project Work, Seminar, Internship in Industry / Higher Technical Institutions (P)

Course Code	Course Title	Hours / Week L	T	P	C

21GNP301L [1]	Community Connect	0	0	2	1
21CSP302L [1]	Project	0	0	6	3
21CSP303T [1]	MOOC	3	0	0	
21CSP401L	Major Project	0	0	30	15
21CSP402L	Major Project	0	0	20	10
21CSP403L	Internship#	0	0	10	5
21CSP501L	Specialization Project	0	0	40	20
21CSP502L	Specialization Project	0	0	30	15
21CSP503L	Domain Internship	0	0	10	5
				Total Credits	**39**

Professional Elective Courses (E)
(Any 11 courses)

Course Code	Course Title	Hours / Week			
		L	T	P	C
21CSE251T	Digital Image Processing	3	0	0	3
21CSE252T	Biometrics	2	1	0	3
21CSE271T	Programming in Java	2	1	0	3
21CSE272T	Genetic Algorithm and its Applications	3	0	0	3
21CSE291T	Introduction to Cognitive Neuroscience	3	0	0	3
21CSE311P [1]	Robot Programming	2	1	0	3
21CSE312P [1]	Software Engineering in Artificial Intelligence	2	1	0	3
21CSE313P [1]	Accelerated Data Science	2	1	0	3
21CSE326T	Artificial Neural Networks	3	0	0	3
21CSE355T	Data Mining and Analytics	2	1	0	3
21CSE356T	Natural Language Processing	2	1	0	3
21CSE358T	Network Security and Cryptography	2	1	0	3
21CSE361T	Database Security and Privacy	2	1	0	3
21CSE371T	Advanced Algorithms	3	0	0	3
21CSE376T	Nature Inspired Computing Techniques	3	0	0	3
21CSE381T	Forensics and Incident Response	2	1	0	3
21CSE397T	Philosophy of Cognitive Science	3	0	0	3
21CSE398T	Logic and Knowledge Representation	3	0	0	3
21CSE411T	Artificial Intelligence in genomics and disease prediction	3	0	0	3
21CSE412T	Machine learning in drug discovery	3	0	0	3
21CSE414T	IoT Concepts and Applications	3	0	0	3
21CSE416T	Robotics: Computational Motion Planning	3	0	0	3
21CSE417T	Reinforcement Learning Techniques	2	1	0	3

Professional Elective Courses (E)

Course Code	Course Title	Hours / Week			
		L	T	P	C
21CSE418T	Cyber Physical Systems	3	0	0	3
21CSE421T	Business Intelligence and Analytics	2	1	0	3
21CSE430T	Automatic Speech Recognition	2	1	0	3
21CSE439T	Virtual Reality and Augmented Reality	2	1	0	3
21CSE451T	Pattern Recognition Techniques	2	1	0	3
21CSE541T	Probabilistic Graphical Models: Principles and Techniques	3	0	0	3
21CSE542T	Deep Generative Models	3	0	0	3
21CSE543T	Brain Machine Interface: Science, Technology and Application	3	0	0	3
21CSE544T	Data Analysis and Visualization	3	0	0	3
21CSE545T	Computational Perception and Cognition	3	0	0	3
21CSE546T	Medical Signal Processing	3	0	0	3
21CSE547T	Deep Multitask and Meta Learning	2	1	0	3
21CSE548T	Spatial and Temporal Computing	3	0	0	3
21CSE549T	Decision Making Under Uncertainty	3	0	0	3
21CSE552T	Computational Linguistics	3	0	0	3
21AIE536T	Artificial Intelligence Engines	3	0	0	3
21AIE538T	Artificial Intelligence for Industrial Applications	3	0	0	3
21AIE539T	Artificial Intelligence in Medical Imaging	3	0	0	3
21AIE541T	Multimodal Machine Learning	3	0	0	3
21CSE553T	Neural Network models of Cognition	3	0	0	3
				Total Credits	**33**

50. (f) Programme Articulation: Integrated M.Tech. in Computer Science and Engineering with Specialization in Cognitive Computing

Course Code	Course Name	Program Outcomes (PO)												PSO		
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
		Engineering Knowledge	Problem Analysis	Design/development of solutions	Conduct investigations of complex problems	Modern Tool Usage	The engineer and society	Environment & Sustainability	Ethics	Individual & Team Work	Communication	Project Mgt. & Finance	Life Long Learning	PSO-1	PSO-2	PSO-3
21CSS101J	Programming for Problem Solving	2	3	-	-	-	-	-	-	-	-	-	2	-	3	-
21CSS303T	Data Science	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-
21CSS201T	Computer Organization and Architecture	3	2	-	-	-	-	-	-	-	-	-	-	1	2	1
21CSC201J	Data Structures and Algorithms	2	3	3	1	-	-	-	-	-	-	-	-	1	1	2
21CSC101T	Object Oriented Design and Programming	-	2	2	-	2	-	-	-	-	-	-	3	-	2	2
21CSC204J	Design and Analysis of Algorithms	2	1	2	1	-	-	-	-	-	3	-	3	3	1	-
21CSC202J	Operating Systems	3	3	3	2	-	-	-	-	-	-	-	3	2	-	-
21CSC303J	Software Engineering and Project Management	-	3	2	-	-	-	-	-	2	-	2	-	3	-	-
21CSC203P	Advanced Programming Practice	3	2	2	1	2	-	-	-	1	-	-	-	2	-	-
21CSC301T	Formal Language and Automata	2	2	2	-	-	-	-	-	-	-	-	-	-	3	-
21CSC302J	Computer Networks	3	-	-	2	3	-	-	-	-	-	-	-	1	-	-
21CSC205P	Database Management Systems	3	2	2	-	-	-	-	-	-	-	-	-	2	1	-
21CSC304J	Compiler Design	3	3	2	3	2	-	-	-	-	-	-	-	-	1	-
21CSC206T	Artificial Intelligence	1	2	3	-	-	-	-	-	-	-	-	-	1	2	-
21CSC305P	Machine Learning	-	3	-	3	-	-	-	-	-	-	-	-	-	1	3
21CSC505T	Computer Graphics and Vision	3	3	-	-	-	-	-	-	-	-	-	-	-	-	3
21CSC506J	Computation and Cognition: the probabilistic approach	-	2	3	-	-	-	-	-	-	-	-	-	-	-	3
21CSE251T	Digital Image Processing	3	2	2	3	-	-	-	-	-	-	-	-	2	3	-
21CSE252T	Biometrics	3	-	1	2	-	-	-	-	2	-	-	-	-	1	-
21CSE271T	Programming in Java	3	2	1	2	-	-	-	-	-	-	-	1	3	2	-
21CSE272T	Genetic Algorithm and its Applications	1	2	3	-	-	-	-	-	-	-	-	-	3	1	-
21CSE291T	Introduction to Cognitive Neuroscience	1	3	2	2	-	-	-	-	-	-	-	1	3	2	-
21CSE311P	Robot Programming	2	2	-	3	-	-	-	-	-	-	-	-	2	-	3
21CSE312P	Software Engineering in Artificial Intelligence	-	3	3	-	3	-	-	-	-	-	-	-	2	2	3
21CSE313P	Accelerated Data science	1	2		3	-	-	-	-	-	-	-	-	1	-	2
21CSE326T	Artificial Neural Networks	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2
21CSE355T	Data Mining and Analytics	1	2	-	-	3	-	-	-	-	-	-	-	2	-	-
21CSE356T	Natural Language Processing	3	3	2	3	3	-	-	-	-	-	-	-	2	-	-
21CSE358T	Network Security and Cryptography	2	3	2	-	2	-	-	-	-	-	-	-	2	-	-
21CSE361T	Database Security and Privacy	3	2	2	2	1	-	-	-	-	-	-	2	1	-	-
21CSE371T	Advanced Algorithms	-	2	-	2	-	-	-	-	-	-	-	-	1	-	2
21CSE376T	Nature Inspired Computing Techniques	3	3	-	-	-	-	-	-	-	-	-	-	-	-	3
21CSE381T	Forensics and Incident Response			2					2							3
21CSE397T	Philosophy of Cognitive science	-	3	-	3	-	-	-	-	-	-	-	-	1	-	3
21CSE398T	Logic and Knowledge representation	-	2	-	3	-	-	-	-	-	-	-	-	2	-	3
21CSE411T	Artificial Intelligence in genomics and disease prediction	3	3	2	-	-	-	-	-	-	-	-	-	-	-	3
21CSE412T	Machine learning in Drug Discovery	3	2	3	-	-	-	-	-	-	-	-	-	-	-	3
21CSE414T	IoT Concepts and applications	2	3	3	-	-	-	-	-	-	-	-	1	1		3
21CSE416T	Robotics: Computational Motion Planning	3	3	2	-	-	-	-	-	-	-	-	-	1	2	3
21CSE417T	Reinforcement Learning Techniques	3	3	-	3	-	-	-	-	-	-	-	-	-	-	3
21CSE418T	Cyber physical systems	3	3	2	-	-	-	-	-	-	-	-	-	2	-	3
21CSE421T	Business Intelligence and Analytics	-	-	-	-	-	-	-	3	-	3	-	-	2	2	2
21CSE430T	Automatic Speech Recognition	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2
21CSE439T	Virtual Reality and Augmented Reality	3	3	2	2	3	-	-	-	-	-	-	-	2		2
21CSE451T	Pattern Recognition Techniques	3	2	2	-	2	-	-	-	-	-	-	-	1	2	2
21CSE499T	Neural Network models of Cognition	3	3	-	-	-	-	-	-	-	-	-	-	-	-	3
21CSE541T	Probabilistic Graphical models: Principles and Techniques	2	-	-	3	-	-	-	-	-	-	-	-	1	-	3
21CSE542T	Deep Generative Models	-	3	-	3	-	-	-	-	3	-	-	-	1	-	3

Course Code	Course Name	Program Outcomes (PO)												PSO		
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
		Engineering Knowledge	Problem Analysis	Design/development of solutions	Conduct investigations of complex problems	Modern Tool Usage	The engineer and society	Environment & Sustainability	Ethics	Individual & Team Work	Communication	Project Mgt. & Finance	Life Long Learning	PSO-1	PSO-2	PSO-3
21CSE543T	*Brain Machine Interface: Science, Technology and Application*	*3*	*2*	*-*	*3*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*1*	*1*	*3*
21CSE544T	*Data Analysis and Visualization*	*1*	*-*	*-*	*3*	*2*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*3*	*1*	*3*
21CSE545T	*Computational Perception and Cognition*	*3*	*3*	*-*	*3*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*2*	*1*	*3*
21CSE546T	*Medical signal Processing*	*1*	*-*	*3*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*1*	*-*	*3*
21CSE547T	*Deep Multitask and meta learning*	*3*	*3*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*1*	*-*	*3*
21CSE548T	*Spatial and Temporal Computing*	*-*	*2*	*2*	*-*	*2*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*2*	*2*
21CSE549T	*Decision making under uncertainty*	*-*	*3*	*2*	*2*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*1*	*-*	*3*
21CSE552T	*Computational Linguistics*	*3*	*2*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*2*	*-*	*3*
21AIE536T	*Artificial Intelligence Engines*	*3*	*2*	*2*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*1*	*2*	*1*
21AIE538T	*Artificial Intelligence for Industrial applications*	*-*	*-*	*-*	*3*	*3*	*-*	*-*	*-*	*-*	*1*		*2*	*1*	*3*	*2*
21AIE539T	*Artificial Intelligence in Medical Imaging*	*3*	*3*	*3*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*1*	*2*	*2*
21AIE541T	*Multimodal machine learning*	*3*	*3*	*3*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*1*	*2*	*2*
21CSP302L	*Project*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*
21CSP303T	*MOOC*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*
21CSP401L	*Major Project*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*
21CSP402L	*Semester Internship-I*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*
21CSP501L	*Specialization Project*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*
21CSP502L	*Semester Internship-II*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*
Program Average		*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*3*

50. (g) Implementation Plan: Integrated M.Tech. in Computer Science and Engineering with Specialization in Cognitive Computing

Semester – I

Course Code	Course Title	Hours / Week L	T	P	C
21LEH101T	Communicative English	2	1	0	3
21MAB101T	Calculus and Linear Algebra	3	1	0	4
21PYB102J	Semiconductor Physics and Computational Methods	3	1	2	5
21MES102L [1]	Engineering Graphics and Design	0	0	4	2
21EES101T	Electrical and Electronics Engineering	3	1	0	4
21CSS101J	Programming for Problem Solving	3	0	2	4
21CYM101T [1]	Environmental Science*	1	0	0	0
21PDM101L [1]	Professional Skills and Practices	0	0	2	0
21LEM101T [1]	Constitution of India	1	0	0	0
				Total Credits	22

Semester – III

Course Code	Course Title	Hours / Week L	T	P	C
21MAB201T	Transforms and Boundary Value Problems	3	1	0	4
21CSC201J	Data Structures and Algorithms	3	0	2	4
21CSC202J	Operating Systems	3	0	2	4
21CSC203P [1]	Advanced Programming Practice	3	1	0	4
21CSS201T	Computer Organization and Architecture	3	1	0	4
21DCS201P [1]	Design Thinking and Methodology	1	2	0	3
21LEM201T [1]	Professional Ethics	1	0	0	0
21PDM201 [1]	Verbal Reasoning	0	0	2	0
				Total Credits	23

Semester – V

Course Code	Course Title	Hours / Week L	T	P	C
21MAB302T	Discrete Mathematics	3	1	0	4
21CSC301T	Formal Language and Automata	3	0	0	3
21CSC302J	Computer Networks	3	0	2	4
21CSC305P [1]	Machine learning	2	1	0	3
E	Professional Elective – II				3
O	Open Elective – I				3
21GNP301L [1]	Community Connect	0	0	2	1
21PDM301L [1]	Analytical and Logical Thinking Skills	0	0	2	0
21LEM301T [1]	Indian Art Form	1	0	0	0
				Total Credits	21

Semester - VII

Course Code	Course Title	Hours / Week L	T	P	C
21GNH401T	Behavioral Psychology	2	1	0	3
E	Professional Elective – V				3
E	Professional Elective – VI				3
21CSC402P [1]	Report Writing	2	0	0	2
21CSC405J	Deep Learning for Cognitive Computing	3	0	2	4
O	Open Elective –III				3
				Total Credits	18

Semester - II

Course Code	Course Title	Hours / Week L	T	P	C
21LEH102T	Chinese	2	1	0	3
21LEH103T	French				
21LEH104T	German				
21LEH105T	Japanese				
21LEH106T	Korean				
21LEH107T	Spanish				
21LEH108T	Russian				
21GNH101J	Philosophy of Engineering	1	0	2	2
21MAB102T	Advanced Calculus and Complex Analysis	3	1	0	4
21CYB101J	Chemistry	3	1	2	5
21BTB102T	Introduction to Computational Biology	2	0	0	2
21CSC101T	Object Oriented Design and Programming	2	1	0	3
21MES101L [1]	Basic Civil and Mechanical Workshop	0	0	4	2
21PDM102L [1]	General Aptitude*	0	0	2	0
21GNM101L [1]	Physical and Mental Health using Yoga	0	0	2	0
21GNM102L [1]	National Service Scheme				
21GNM103L [1]	National Cadet Corps				
21GNM104L [1]	National Sports Organization				
				Total Credits	21

Semester – IV

Course Code	Course Title	Hours / Week L	T	P	C
21MAB204T	Probability and Queueing Theory	3	1	0	4
21CSC204J	Design and Analysis of Algorithms	3	0	2	4
21CSC205P [1]	Database Management Systems	3	1	0	4
21CSC206T	Artificial Intelligence	2	1	0	3
E	Professional Elective – I				3
21PDH209T [1]	Social Engineering	2	0	0	2
21PDM202L [1]	Critical and Creative Thinking Skills	0	0	2	0
21LEM202T [1]	Universal Human Values-II: Understanding Harmony and Ethical Human Conduct	2	1	0	3
				Total Credits	23

Semester – VI

Course Code	Course Title	Hours / Week L	T	P	C
21CSS303T	Data Science	2	0	0	2
21CSC303J	Software Engineering and Project Management	2	0	2	3
21CSC304J	Compiler Design	2	0	2	3
E	Professional Elective – III				3
E	Professional Elective – IV				3
O	Open Elective – II				3
21CSP302L [1]	Project	0	0	6	3
21CSP303T [1]	MOOC	3	0	0	
21PDM302L [1]	Employability Skills and Practices	0	0	2	0
21LEM302T [1]	Indian Traditional Knowledge	1	0	0	0
				Total Credits	20

Semester - VIII

Course Code	Course Title	Hours / Week L	T	P	C
21CSC505T	*Computer Graphics and Vision*	*3*	*1*	*0*	*4*
21CSC506J	*Computation and Cognition: The Probabilistic Approach*	*3*	*0*	*2*	*4*
21IPC501J [2]	*Research Methodology*	*2*	*1*	*2*	*4*
21CSP401L	*Major Project*	*0*	*0*	*30*	*15*
21CSP402L	*Major Project*	*0*	*0*	*20*	*10*
21CSP403L	*Internship*	*0*	*0*	*10*	*5*
				Total Credits	**27**

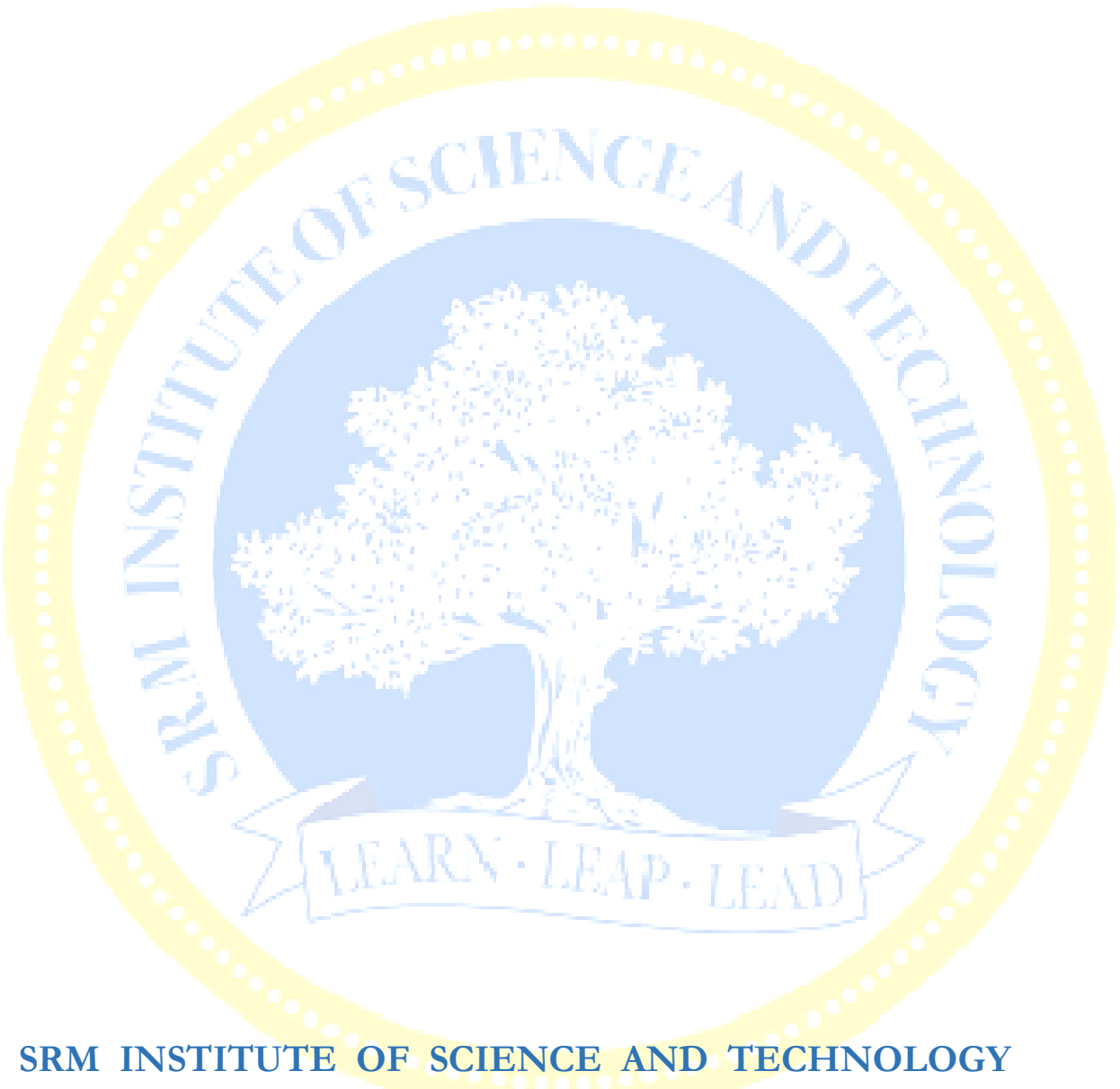
Semester - IX

Course Code	Course Title	Hours / Week L	T	P	C
E	*Professional Elective – VII*				*3*
E	*Professional Elective – VIII*				*3*
E	*Professional Elective – IX*				*3*
E	*Professional Elective – X*				*3*
E	*Professional Elective –XI*				*3*
O	*Open Elective-IV*				*3*
				Total Credits	**18**

Semester - X

Course Code	Course Title	Hours / Week L	T	P	C
21CSP501L	*Specialization Project*	*0*	*0*	*40*	*20*
21CSP502L	*Specialization Project*	*0*	*0*	*30*	*15*
21CSP503L	*Domain Internship*	*0*	*0*	*10*	*5*
				Total Credits	**20**

#Students have to register either 21CSP401L or 21CSP402L and 21CSP403L both in eighth semester and either 21CSP501L or 21CSP502L and 21CSP503L in tenth semester



SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University u/s 3 of UGC Act, 1956)

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