ACADEMIC CURRICULA

POST GRADUATE DEGREE PROGRAMMES

Master of Technology

(Choice Based Flexible Credit System)

Regulations 2021

Volume – 21 Curriculum

SRM INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)

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Kattankulathur, Chengalpattu District 603203,

Tamil Nadu, India

16. M.Tech in Cloud Computing

16. (a) Department Vision Statement

Stmt - 1	*To Nurture as globally recognizable department in imparting the students high quality education and providing high confidence, unique knowledge and research experience in the field of networking, cyber security, forensics, information technology, cognitive computing and internet of things.*

16. (b) Department Mission Statement

Stmt - 1	*To provide world-class IT professionals with appropriate industry and research-based curriculum.*
Stmt - 2	*To train the students, that leads to entrepreneurship and develop societal need-based industries.*
Stmt - 3	*To nourish the students as socially responsible professionals by providing them training in personality development, ethics, and leadership program.*

16. (c) Program Education Objectives (PEO)

PEO - 1	*Graduates will be able to demonstrate their knowledge and skills acquired in Computer Science and Engineering domain*
PEO - 2	*Graduates will be able to successfully pursue their research in reputed institutions.*
PEO - 3	*Graduates will have the proficiency to adapt, contribute and innovate new technologies and systems in their job domains with appropriate professional skills*
PEO - 4	*Graduates will be ethically and socially responsible solution providers and entrepreneurs in Computer Science and other engineering disciplines*
PEO - 5	*Graduates will have the ability to excel in their career producing outstanding contribution in Computer Science with cloud computing domain*

16. (d) Consistency of PEO's with Mission of the Department

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

16. (e) PO – Program Outcomes

PO - 1	*An ability to independently carry out research /investigation and development work to solve practical problems.*
PO - 2	*An ability to write and present a substantial technical report/document.*
PO - 3	*Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.*

16. (f) Consistency of PEO's with Program Outcomes (PO)

	Program Outcomes (PO)		
	1	2	3
PEO - 1	*3*	*2*	*3*
PEO - 2	*3*	*3*	*2*
PEO - 3	*2*	*2*	*2*
PEO - 4	*2*	*2*	*2*
PEO - 5	*3*	*2*	*3*

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

16. (g) Programme Structure: M.Tech in Cloud Computing

Professional Core Courses (C)

Course Code	Course Title	Hours/ Week L	T	P	C
21MAC503T	Discrete Mathematics and Probability Theory	3	1	0	4
21CSC530J	Cloud Architecture and Design	3	0	2	4
21CSC531J	Data Center Networking	3	0	2	4
21CSC532J	Cloud Security Essentials	3	0	2	4
21CSC533J	Advanced Data Processing Techniques	3	0	2	4
21IPC501J [2]	Research Methodology	2	1	2	4
21CSC601T [1]	Case Studies	3	0	0	3
	Total Credits				**27**

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

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

100% assessment by the Department ([1])

Course Code	Course Title	Hours/ Week L	T	P	C
21CSC601T [1]	Case Studies	3	0	0	3
21CSE600T [1]	Journal Publication	0	0	0	3

Course Delivery by online mode ([3])

Course Code	Course Title	Hours/ Week L	T	P	C
21CSE575T	API Design and Management	2	1	0	3
21CSE577T	Data Center Virtualization and Management Tools	2	1	0	3
21CSE578T	Cloud Compliance and Governance	2	1	0	3
21CSE581T	Cloud Services Architect	2	1	0	3
21CSE582T	Cloud Security Builder	2	1	0	3
21CSE597T	Containers and Cloud DevOps	3	0	0	3
21CSE632T	Essentials of Data Science on Cloud Computing	2	1	0	3
21CSE633T	Computer Vision on Edge Computing	2	1	0	3
21CSE634T	Migration Techniques on Cloud Architecture	2	1	0	3
21CSE635T	Designing Scalable Cloud-Native Systems	2	1	0	3
21CSE636T	Emerging Technologies in Cloud Computing	2	1	0	3

Professional Elective Courses (E)

(7 Course only)

Course Code	Course Title	Hours/ Week L	T	P	C
21CSE575T [3]	API Design and Management	2	1	0	3
21CSE576T	Micro services and Containerization in Cloud Computing	2	1	0	3
21CSE577T [3]	Data Center Virtualization and Management Tools	2	1	0	3
21CSE578T [3]	Cloud Compliance and Governance	2	1	0	3
21CSE580T	Business Continuity planning and Disaster Recovery	2	1	0	3
21CSE581T [3]	Cloud Services Architect	2	1	0	3
21CSE582T [3]	Cloud Security Builder	2	1	0	3
21CSE597T [3]	Containers and Cloud DevOps	2	1	0	3
21CSE631T [3]	Risk Assessment and Security Audit	3	0	0	3
21CSE632T [3]	Essentials of Data Science on Cloud Computing	2	1	0	3
21CSE633T [3]	Computer Vision on Edge Computing	2	1	0	3
21CSE634T [3]	Migration techniques on Cloud Architecture	2	1	0	3
21CSE600T [1]	Journal Publication	0	0	0	3
21CSE635T [3]	Designing Scalable Cloud-Native Systems	2	1	0	3
21CSE636T [3]	Emerging Technologies in Cloud Computing	2	1	0	3
	Total Credits				**21**

Open Elective Courses (O)

Course Code	Course Title	Hours/ Week L	T	P	C
21CSO621T	Cyber Security	3	0	0	3
21CSO622T	Big Data Analytics	3	0	0	3
21CSO623T	Data Sciences	3	0	0	3
	Total Credits				3

Assessment by Open Book Examination ([2])

Course Code	Course Title	Hours/ Week L	T	P	C
21IPC501J [2]	Research Methodology	2	1	2	4

All elective courses may be studied under MOOC platform
[1] 100% assessment by the Department
[2] Assessment by Open Book Examination
[3] Course Delivery through online mode

16. (h) Implementation Plan: M.Tech in Cloud Computing

Semester - I					
Code	Course Title	Hours/ Week			
		L	T	P	C
21MAC503T	Discrete Mathematics and Probability Theory	3	1	0	4
21CSC530J	Cloud Architecture and Design	3	0	2	4
21CSC532J	Cloud Security Essentials	3	0	2	4
21IPC501J [2]	Research Methodology	2	1	2	4
21CSE575T [3]	API Design and Management	2	1	0	3
21CSE576T	Micro services and Containerization in Cloud Computing	2	1	0	
	Total Credits				**19**

Semester - II					
Code	Course Title	Hours/ Week			
		L	T	P	C
21CSC531J	Data Center Networking	3	0	2	4
21CSC533J	Advanced Data Processing Techniques	3	0	2	4
21CSE577T [3]	Data Center Virtualization and Management Tools	2	1	0	3
21CSE578T [3]	Cloud Compliance and Governance	2	1	0	
21CSE580T	Business Continuity Planning and Disaster Recovery	2	1	0	3
21CSE581T [3]	Cloud Services Architect	2	1	0	
21CSE582T [3]	Cloud Security Builder	2	1	0	3
21CSE597T [3]	Containers and Cloud DevOps	2	1	0	
	Total Credits				**17**

Semester - III					
Code	Course Title	Hours/ Week			
		L	T	P	C
	Open Elective	3	0	0	3
21CSE631T [3]	Risk Assessment and Security Audit	3	0	0	3
21CSE632T [3]	Essentials of Data Science on Cloud Computing	2	1	0	
21CSE633T [3]	Computer Vision on Edge Computing	2	1	0	
21CSE634T [3]	Migration techniques on Cloud Architecture	2	1	0	3
21CSE600T [1]	Journal Publication	0	0	0	
21CSE635T [3]	Designing Scalable Cloud-Native Systems	2	1	0	3
21CSE636T [3]	Emerging Technologies in Cloud Computing	2	1	0	
21CSC601T [1]	Case Studies	3	0	0	3
	Total Credits				**15**

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

 # Students must register either 21CSP501L or 21CSP502L and 21CSP503L both in fourth semester

16. (i) Program Articulation Matrix: M.Tech in Cloud Computing

Course Code	Course Name	Programme Outcomes		
		1	2	3
21MAC503T	Discrete Mathematics and Probability Theory	3	3	-
21CSC530J	Cloud Architecture and Design	1	2	3
21CSC531J	Data Center Networking	3	2	3
21CSC532J	Cloud Security Essentials	3	1	2
21CSC533J	Advanced Data Processing Techniques	2	2.8	3
21CSC601T	Case Studies	3	2.6	2.6
21CSE575T	API Design and Management	3	2	3
21CSE576T	Micro services and Containerization in Cloud Computing	2.6	1	1
21CSE577T	Data Center Virtualization and Management tools	1.8	2.8	2
21CSE578T	Cloud Compliance and Governance	2.4	3	2.6
21CSE580T	Business Continuity planning and Disaster Recovery	2	3	2
21CSE581T	Cloud Services Architect	3	2.6	2.6
21CSE582T	Cloud Security Builder	2	2.6	3
21CSE597T	Containers and Cloud DevOps	2	-	2
21CSE632T	Essentials of Data Science on Cloud Computing	2	2	2
21CSE633T	Computer Vision on Edge Computing	3	2.6	2.6
21CSE634T	Migration Techniques on Cloud Architecture	2.4	2.6	2.4
21CSE635T	Designing Scalable Cloud-Native Systems	1.8	1.4	2.2
21CSE636T	Emerging Technologies in Cloud Computing	1	2	3
21CSE600T	Journal Publication			
21IPC501J	Research Methodology	3	2.6	
	Open Elective			
21CSP501L	Specialization Project			
21CSP502L	Specialization Project			
21CSP503L	Domain Internship			
	Program Average			

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