ACADEMIC CURRICULA

POST GRADUATE DEGREE PROGRAMMES

Master of Technology

(Choice Based Flexible Credit System)

Regulations 2021

Volume - 21 Curriculum



SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University u/s 3 of UGC Act, 1956)
Kattankulathur, Chengalpattu District 603203,
Tamil Nadu, India



SRM INSTITUTE OF SCIENCE AND TECHNOLOGY Kattankulathur, Chengalpattu District 603203, Tamil Nadu, India

16. M.Tech in Cloud Computing

16. (a) Department Vision Statement

	To Nurture as globally recognizable department in imparting the students high quality education and providing high
Stmt - 1	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	1 2							
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)						Professional Elective Courses (E)					
Course	Course		ours			(7 Course only)						
Code	Title	I V	Vee T	к Р	С	Course Course		Н	Hours/			
21MAC50	Discrete Mathematics and Probability	3	1	0	4			٧.	Vee			
21CSC53	Theory OJ Cloud Architecture and Design	3	0	2	4	Code	Title	L	Т	Р	С	
21CSC53		3	0	2	4	21CSE575T	1 3 1 1 3 1 3	2	1	0	,	
21CSC53	2J Cloud Security Essentials	3	0	2	4	21CSE576T	Micro services and Containerization in Cloud Computing	2	1	0	3	
21CSC53	3J Advanced Data Processing Techniques	3	0	2	4	21CSE577T		2	1	0	3	
	J ² Research Methodology	2	1	2	4	21CSE578T	Cloud Compliance and Governance	2	1	0		
21CSC601		3	0	0	3	21CSE580T						
	Total Credits				27		Disaster Recovery	2	1	0	3	
				Ľ.	ď.	21CSE581T	Cloud Services Architect	2	1	0		
	Project Work, Internship In						Cloud Security Builder	2	1	0	3	
	Industry / Higher Technical Institutions (P)				21CSE597T		2	1	0	Ŭ	
	, ,		lour	·c/			Risk Assessment and Security Audit		0	0	,	
Course	Course Title	-	Nee	k	_		Essentials of Data Science on Cloud Computing	2	1	0	3	
Code 21CSP50		0	T 0	P 40	C 20	21CSE633T	,	2	1	0		
2103730	IL Specialization Froject (OR)	U	U	40	20	21CSE63/T	Computing Migration techniques on Cloud		H		3	
21CSP502	1 - /	0	0	30	15	2100L0041	Architecture	2	1	0	٦	
21CSP503		0	0	10		21CSE600T		0	0	0		
	Total Credits				20		Designing Scalable Cloud-Native	2	1	0		
	Fall Fall (1)	1		-1	Ŋ,		Systems		'	U	3	
100% assessment by the Department (1)						21CSE636T	. 5 5	2	1	0		
Course	Course		ours Veel				Computing Total Credits	<u> </u>			21	
Code	Title	L	Τ	Р	С					_		
	T ¹ Case Studies	3	0	0	3	3 4F3						
21CSE600	T ¹ Journal Publication	0	0	0	3				Т	Ŧ		
	The state of the s				ľ		Ones Fleeting Courses (O)					
	Course Delivery by online mode (3)						Open Elective Courses (0)	Ha		/		
Course	Course		Hou We			Course	Course		urs 'eek			
Code	Title	H	T	P	С	Code	Title			P	С	
	API Design and Management	2	1	0		21CSO621T C	Cyber Security	3	0	0	3	
		+				21CSO622T Big Data Analytics 3 0 0				3		
	Data Center Virtualization and Management	1	1	1	2				^	0	3	
1CSE577T	Data Center Virtualization and Management Tools	2	1	0	3	21CSO623T [_	0	3 Total Credits		
1CSE577T 1CSE578T	Data Center Virtualization and Management Tools Cloud Compliance and Governance	2	1	0	3		Oata Sciences	3	•	ts	Ů	
1CSE577T 1CSE578T 1CSE581T	Data Center Virtualization and Management Tools Cloud Compliance and Governance Cloud Services Architect	2 2	1	0	3		Oata Sciences	3	•	ts		
1CSE577T 1CSE578T 1CSE581T 1CSE582T	Data Center Virtualization and Management Tools Cloud Compliance and Governance Cloud Services Architect Cloud Security Builder	2 2 2	1 1 1	0 0	3 3	21CSO623T [Data Sciences Tota	3 Cı	redi	ts		
1CSE577T 21CSE578T 21CSE581T 21CSE582T 21CSE597T	Data Center Virtualization and Management Tools Cloud Compliance and Governance Cloud Services Architect Cloud Security Builder Containers and Cloud DevOps	2 2 2 3	1 1 1 0	0 0 0 0	3 3 3	21CSO623T [Oata Sciences	3 Cı	redi	ts		
1CSE577T 1CSE578T 1CSE581T 1CSE582T 1CSE597T 1CSE632T	Data Center Virtualization and Management Tools Cloud Compliance and Governance Cloud Services Architect Cloud Security Builder	2 2 2	1 1 1	0 0	3 3	21CSO623T E	Pata Sciences Tota essment by Open Book Examinatio	3 al Cı ın (²	redi			
11CSE577T 11CSE581T 11CSE581T 11CSE582T 11CSE597T 11CSE632T	Data Center Virtualization and Management Tools Cloud Compliance and Governance Cloud Services Architect Cloud Security Builder Containers and Cloud DevOps Essentials of Data Science on Cloud Computing Computer Vision on Edge Computing	2 2 2 3 2 2	1 1 1 0 1	0 0 0 0	3 3 3 3 3	21CSO623T L	essment by Open Book Examinatio	3 Cu	redi) ours	<i>l</i>		
1CSE577T 1CSE578T 1CSE581T 1CSE582T 1CSE597T 1CSE632T 1CSE633T 1CSE634T	Data Center Virtualization and Management Tools Cloud Compliance and Governance Cloud Services Architect Cloud Security Builder Containers and Cloud DevOps Essentials of Data Science on Cloud Computing Computer Vision on Edge Computing Migration Techniques on Cloud Architecture	2 2 2 3 2 2 2 2	1 1 1 0 1 1	0 0 0 0 0 0	3 3 3 3	21CSO623T L Ass Course Code	essment by Open Book Examinatio Course Title	al Cu	redi) ours	/ Z P	С	
11CSE577T 11CSE578T 11CSE581T 11CSE582T 11CSE632T 11CSE632T 11CSE633T 11CSE634T 11CSE635T	Data Center Virtualization and Management Tools Cloud Compliance and Governance Cloud Services Architect Cloud Security Builder Containers and Cloud DevOps Essentials of Data Science on Cloud Computing Computer Vision on Edge Computing Migration Techniques on Cloud Architecture Designing Scalable Cloud-Native Systems	2 2 2 3 2 2 2 2 2	1 1 1 0 1 1 1	0 0 0 0 0 0	3 3 3 3 3	21CSO623T L Ass Course Code	essment by Open Book Examinatio	3 Cu	redi) ours	<i>l</i>		
21CSE577T 21CSE578T 21CSE581T 21CSE582T 21CSE632T 21CSE632T 21CSE633T 21CSE634T 21CSE635T	Data Center Virtualization and Management Tools Cloud Compliance and Governance Cloud Services Architect Cloud Security Builder Containers and Cloud DevOps Essentials of Data Science on Cloud Computing Computer Vision on Edge Computing Migration Techniques on Cloud Architecture	2 2 2 3 2 2 2 2 2	1 1 1 0 1 1 1	0 0 0 0 0 0	3 3 3 3 3	Ass Course Code 21/PC501J ²	essment by Open Book Examinatio Course Title Research Methodology	3 In Ci) Durs /eek	/ Z P	С	
11CSE577T 11CSE578T 11CSE581T 11CSE582T 11CSE632T 11CSE632T 11CSE633T 11CSE634T 11CSE635T	Data Center Virtualization and Management Tools Cloud Compliance and Governance Cloud Services Architect Cloud Security Builder Containers and Cloud DevOps Essentials of Data Science on Cloud Computing Computer Vision on Edge Computing Migration Techniques on Cloud Architecture Designing Scalable Cloud-Native Systems	2 2 2 3 2 2 2 2 2	1 1 1 0 1 1 1	0 0 0 0 0 0	3 3 3 3 3	Ass Course Code 21IPC501J ² All elective col	essment by Open Book Examinatio Course Title Research Methodology urses may be studied under MOOC place.	3 In Ci) Durs /eek	/ Z P	С	
11CSE577T 11CSE578T 11CSE581T 11CSE582T 11CSE632T 11CSE632T 11CSE633T 11CSE634T 11CSE635T	Data Center Virtualization and Management Tools Cloud Compliance and Governance Cloud Services Architect Cloud Security Builder Containers and Cloud DevOps Essentials of Data Science on Cloud Computing Computer Vision on Edge Computing Migration Techniques on Cloud Architecture Designing Scalable Cloud-Native Systems	2 2 2 3 2 2 2 2 2	1 1 1 0 1 1 1	0 0 0 0 0 0	3 3 3 3 3	Ass Course Code 21/PC501J ² All elective coi 1 100% assess 2 Assessment	essment by Open Book Examinatio Course Title Research Methodology urses may be studied under MOOC plane by the Department by Open Book Examination	3 In Ci) Durs /eek	/ Z P	С	
1CSE577T 1CSE578T 1CSE581T 1CSE582T 1CSE597T 1CSE632T 1CSE633T 1CSE634T 1CSE635T	Data Center Virtualization and Management Tools Cloud Compliance and Governance Cloud Services Architect Cloud Security Builder Containers and Cloud DevOps Essentials of Data Science on Cloud Computing Computer Vision on Edge Computing Migration Techniques on Cloud Architecture Designing Scalable Cloud-Native Systems	2 2 2 3 2 2 2 2 2	1 1 1 0 1 1 1	0 0 0 0 0 0	3 3 3 3 3	Ass Course Code 21/PC501J ² All elective coi 1 100% assess 2 Assessment	essment by Open Book Examinatio Course Title Research Methodology urses may be studied under MOOC plane	3 In Ci) Durs /eek	/ Z P	С	

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

	Semester - I						Semester - II				
Code	Course Title	Hours/ Week		Week		urs/ cek Code Course Title			lour Nee	k	•
21MAC503T	Discrete Mathematics and Probability	3	1	0	4	21CSC531J	Data Center Networking	3	0	P 2	C 4
	Theory			,		21CSC533J	Advanced Data Processing	3	0	2	4
	Cloud Architecture and Design	3	0	2	4		Techniques				
	Cloud Security Essentials	3	0	2	4	21CSE577T ³	Data Center Virtualization and	2	1	0	•
	Research Methodology	2	1	2	4		Management Tools		ļ.,		3
	API Design and Management	2	1	0			Cloud Compliance and Governance	2	1	0	
	Micro services and Containerization in Cloud Computing	2	1	0	3	21CSE580T	Business Continuity Planning and Disaster Recovery	2	1	0	3
	Total Credits				19	21CSE581T 3	Cloud Services Architect	2	1	0	
					•	21CSE582T 3	Cloud Security Builder	2	1	0	3
	Semester - III			-		21CSE597T 3	Containers and Cloud DevOps	2	1	0	J
	Ochicator - III	Н	our	s/			;			17	
Code	Course Title		Vee								
0000	Course This	1	T	P	С		Semester - IV				
	Open Elective	3	0	0	3		O T::		Hours/		
21CSF631T 3	Risk Assessment and Security Audit	3	0	0	U	Code	Course Title	· V	Veel	(P	С
	Essentials of Data Science on Cloud			_	3	210005011	Specialization Project	0	0	40	20
	Computing	2	1	0		2103P301L	Specialization Project (OR)	U	U	40	20
21CSE633T 3	Computer Vision on Edge Computing	2	1	0		21CSP5021	Specialization Project	0	0	30	15
	Migration techniques on Cloud	2	1	0	3		Domain Internship	0	0	10	5
	Architecture	2	ı	U	3	21001 000L	Total Credits	U	U	10	20
21CSE600T 1	Journal Publication	0	0	0		# Students mu	מסגו	121 -	and	20	
	Designing Scalable Cloud-Native Systems	2	1	0	1		st register either 21CSP501L or 21CS oth in fourth semester	- 50	ZL c	anu	
	Emerging Technologies in Cloud Computing	2	1	0	3						
21CSC601T 1	Case Studies	3	0	0	3		(영화) 다시 🛌 👝				
				15	and the state of						

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

Course Code	Course Name	Programme Outcomes					
Course Code		1	_2	3			
21MAC503T	Discrete Mathematics and Probability Theory	3	3				
21CSC530J	Cloud Architecture and Design	1 1	2	3			
21CSC531J	Data Center Networking	3	2	3			
21CS <mark>C532J</mark>	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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