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

17. M.Tech in Cloud Computing and Blockchain

17. (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.*

17. (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.*

17. (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*

17. (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	*3*	*2*	*3*

17. (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.*

17. (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	*2*	*3*	*3*

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

17. (g) Programme Structure: M.Tech Cloud Computing and Blockchain

Professional Core Courses (C)

Course Code	Course Title	Hours/ Week L	T	P	C
21MAC503T	Discrete Mathematics and Probability Theory	3	1	0	4
21CSC531J	Data Center Networking	3	0	2	4
21CSC530J	Cloud Architecture and Design	3	0	2	4
21CSC548J	Blockchain Technology with Hyperledger	3	0	2	4
21CSC549J	Fundamentals of Blockchain	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**

Course Delivery by online mode ([3])

Course Code	Course Title	Hours/ Week L	T	P	C
21CSE575T [3]	API Design and Management	2	1	0	3
21CSE577T [3]	Data Center Virtualization and Management Tools	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	3	0	0	3
21CSE634T [3]	Migration Techniques on Cloud Architecture	2	1	0	3
21CSE652T [3]	Advanced Cryptography	3	0	0	3
21CSE653T [3]	Cloud Computing with Blockchain	3	0	0	3
21CSE654T [3]	Cryptocurrencies and Blockchain Technology	3	0	0	3
21CSE665T [3]	Revolutioning Business with Blockchain	3	0	0	3
21CSE666T [3]	Transforming Business paradigms of Distributed Ledger Technology	3	0	0	3
21CSE667T [3]	Empowering Business with Smart Contracts	3	0	0	3

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

Professional Elective Courses (E) (Any 7 Courses)

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
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	3	0	0	3
21CSE634T [3]	Migration Techniques on Cloud Architecture	2	1	0	3
21CSE652T [3]	Advanced Cryptography	3	0	0	3
21CSE653T [3]	Cloud Computing with Blockchain	3	0	0	3
21CSE654T [3]	Cryptocurrencies and Blockchain Technology	3	0	0	3
21CSE665T [3]	Revolutioning Business with Blockchain	3	0	0	3
21CSE666T [3]	Transforming Business Paradigms of Distributed Ledger Technology	3	0	0	3
21CSE667T [3]	Empowering Business with Smart Contracts	3	0	0	3
21CSE600T [1]	Journal Publication	0	0	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

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

Assessment by Open Book Examination ([2])

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

17. (h) Implementation Plan: M.Tech Cloud Computing and Blockchain

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*
21CSC549J	*Fundamentals of Blockchain*	*3*	*0*	*2*	*4*
21IPC501J [2]	*Research Methodology*	*2*	*1*	*2*	*4*
					3
Total Credits					**16/19**

Semester - II					
Code	Course Title	Hours/ Week			
		L	T	P	C
21CSC531J	*Data Center Networking*	*3*	*0*	*2*	*4*
21CSC548J	*Blockchain Technology with Hyperledger*	*3*	*0*	*2*	*4*
	Professional Elective-1				*3*
Total Credits					**11/17**

Semester – III					
Code	Course Title	Hours/ Week			
		L	T	P	C
21CSC601T [1]	*Case Studies*	*3*	*0*	*0*	*3*
	Professional Elective-2				*3*
					3
					3
					3
Total Credits					**6/15**

Semester - IV					
Code	Course Title	Hours/ Week			
		L	T	P	C
21CSP501L	*Specialization Project (OR)*	*0*	*0*	*40*	*20*
21CSP502L	*Specialization Project*	*0*	*0*	*30*	*15*
21CSP503L	*Domain Internship*	*0*	*0*	*10*	*5*
					3
					3
Total Credits					**20/26**

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

Offered and can be enrolled in both ODD & EVEN semester					
Code	Course Title	Hours/ Week			C
		L	T	P	
	Professional Elective-3				*3*
	Professional Elective-4				*3*
	Professional Elective-5				*3*
	Professional Elective-6				*3*
21CSE600T [1]	*Journal Publication*	*0*	*0*	*0*	
	Professional Elective-7				*3*
	Open Elective	*3*	*0*	*0*	*3*

17. (i) Program Articulation Matrix: M.Tech Cloud Computing and Blockchain

Course Code	Course Name	Programme Outcomes		
		1	2	3
21MAC503T	*Discrete Mathematics and Probability Theory*	*3*	*3*	-
21CSC531J	*Data Center Networking*	*3*	*2*	*3*
21CSC530J	*Cloud Architecture and Design*	*1*	*2*	*3*
21CSC548J	*Blockchain Technology with Hyperledger*	*1*	*2*	*3*
21CSC549J	*Fundamentals of Blockchain*	*1*	*2*	*3*
21CSC601T	*Case Studies*			
21CSE575T	*API Design and Management*	*3*	*2.6*	*2.6*
21CSE576T	*Micro services and Containerization in Cloud Computing*	*3*	*2*	*3*
21CSE577T	*Data Center Virtualization and management tools*	*2.6*	*1*	*1*
21CSE580T	*Business Continuity planning and Disaster recovery*	*2.4*	*3*	*2.6*
21CSE581T	*Cloud Services Architect*	*2*	*3*	*2*
21CSE582T	*Cloud Security Builder*	*3*	*2.6*	*2.6*
21CSE597T	*Containers and Cloud DevOps*	*2*	*2.6*	*3*
21CSE634T	*Migration techniques on cloud architecture*	*3*	*2.6*	*2.6*
21CSE652T	*Advanced Cryptography*	*3*	*2*	*3*
21CSE653T	*Cloud Computing with Blockchain*	*3*	*2*	*3*
21CSE654T	*Cryptocurrencies and Blockchain Technology*	*3*	*2*	*3*
21CSE665T	*Revolutioning Business with Blockchain*	*3*	*2*	*3*
21CSE666T	*Transforming Business paradigms of Distributed Ledger Technology*	*3*	*1*	*2*
21CSE667T	*Empowering Business with Smart Contracts*	*3*	*2*	*3*
21CSE600T	*Journal Publication*			
21IPC501J	*Research Methodology*	*3*	*2.6*	
	Open Elective			
21CSP501L	*Specialization Project*			
21CSP502L	*Specialization Project*			
21CSP503L	*Domain Internship*			
	Program Average			

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

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