

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)

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

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

Kattankulathur, Chengalpattu District 603203,

Tamil Nadu, India

25 M.Tech in Internet of Things

25. (a) Department Vision Statement

Stmt - 1	<i>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.</i>
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25. (b) Department Mission Statement

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

25. (c) Program Education Objectives (PEO)

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

25. (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	2

25. (e) PO – Program Outcomes

PO - 1	<i>An ability to independently carry out research /investigation and development work to solve practical problems.</i>
PO - 2	<i>An ability to write and present a substantial technical report/document.</i>
PO - 3	<i>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.</i>

25. (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	2	3

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

25. (g) Programme Structure: M.Tech Internet of Things

Professional Core Courses (C)						
Course Code	Course Title	Hours/Week			C	
		L	T	P		
21CSC529T	Inferential Statistics	2	1	0	3	
21CSC519J	Web Development for Internet of Things	3	0	2	4	
21CSC522J	Embedded System and Software development for Internet of Things	3	0	2	4	
21CSC520J	Cloud Storage and Edge Computing	3	0	2	4	
21CSC566J	Cyber Physical Systems in IoT	3	0	2	4	
21IPC501J ²	Research Methodology	2	1	2	4	
21CSC601T ¹	Case Studies	3	0	0	3	
Total Credits					26	

Professional Elective Courses (E) (7 Course only)						
Course Code	Course Title	Hours/Week			C	
		L	T	P		
21CSE566T ³	IoT Data Analytics	3	0	0	3	
21CSE567T ³	Communication and Networking Technologies for Internet of Things	3	0	0		
21CSE622T ³	Industrial Internet of Things	3	0	0	3	
21CSE573T ³	Real Time Systems in Emerging IoT	3	0	0	3	
21CSE570T ³	Sensor Data Management in IoT	3	0	0		
21CSE571T ³	SDN and NFV for Internet of Things	3	0	0	3	
21CSE572T ³	IoT Visualization	3	0	0		
21CSE574T ³	Digital Twins Driven Distributed IoT Solutions	3	0	0	3	
21CSE568T ³	Privacy and Security in IoT	3	0	0	3	
21CSE569T ³	Components and Energy Optimization Techniques for Internet of Things	3	0	0		
21CSE619T ³	Smart Convergent Technologies	3	0	0	3	
21CSE620T ³	Cognitive Internet of Things	3	0	0		
21CSE600T ¹	Journal Publication	0	0	0	3	
21CSE621T ³	Advanced Distributed Systems	3	0	0		
21CSE623T ³	Wireless Sensor Networks in IoT	3	0	0	3	
21CSE624T ³	Fog Networks in IoT	3	0	0		
Total Credits					21	

Project Work, Internship In Industry / Higher Technical Institutions (P)						
Course Code	Course Title	Hours/Week			C	
		L	T	P		
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			C	
		L	T	P		
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			C	
		L	T	P		
21CSE566T ³	IoT Data Analytics	3	0	0	3	
21CSE567T ³	Communication and Networking Technologies for Internet of Things	3	0	0	3	
21CSE568T ³	Privacy and Security in IoT	3	0	0	3	
21CSE569T ³	Components and Energy Optimization Techniques for Internet of Things	3	0	0	3	
21CSE570T ³	Sensor Data Management in IoT	3	0	0	3	
21CSE571T ³	SDN and NFV for Internet of Things	3	0	0	3	
21CSE572T ³	IoT Visualization	3	0	0	3	
21CSE573T ³	Real Time Systems in Emerging IoT	3	0	0	3	
21CSE574T ³	Digital Twins Driven Distributed IoT Solutions	3	0	0	3	
21CSE619T ³	Smart Convergent Technologies	3	0	0	3	
21CSE620T ³	Cognitive Internet of Things	3	0	0	3	
21CSE621T ³	Advanced Distributed Systems	3	0	0	3	
21CSE622T ³	Industrial Internet of Things	3	0	0	3	
21CSE623T ³	Wireless Sensor Networks in IoT	3	0	0	3	
21CSE624T ³	Fog Networks in IoT	3	0	0	3	

Open Elective Courses (O)						
Course Code	Course Title	Hours/Week			C	
		L	T	P		
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			C	
		L	T	P		
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

25. (h) Implementation Plan: M.Tech Internet of Things

Semester - I						
Code	Course Title	Hours/ Week				
		L	T	P	C	
21CSC529T	Inferential Statistics	2	1	0	3	
21CSC519J	Web Development for Internet of Things	3	0	2	4	
21CSC522J	Embedded System and Software Development for Internet of Things	3	0	2	4	
21IPC501J ²	Research Methodology	2	1	2	4	
21CSE566T ³	IoT Data Analytics	3	0	0	3	
21CSE567T ³	Communication and Networking Technologies for Internet of Things	3	0	0		
Total Credits					18	

Semester - II						
Code	Course Title	Hours/ Week				
		L	T	P	C	
21CSC520J	Cloud Storage and Edge Computing	3	0	2	4	
21CSC566J	Cyber Physical Systems in IoT	3	0	2	4	
21CSE622T ³	Industrial Internet of Things	3	0	0	3	
21CSE573T ³	Real Time Systems in Emerging IoT	3	0	0		
21CSE570T ³	Sensor Data Management in IoT	3	0	0	3	
21CSE571T ³	SDN and NFV for Internet of Things	3	0	0		
21CSE572T ³	IoT Visualization	3	0	0	3	
21CSE574T ³	Digital Twins Driven Distributed IoT Solutions	3	0	0		
Total Credits					17	

Semester - III						
Code	Course Title	Hours/ Week				
		L	T	P	C	
	Open Elective	3	0	0	3	
21CSE568T ³	Privacy and Security in IoT	3	0	0	3	
21CSE569T ³	Components and Energy Optimization Techniques for Internet of Things	3	0	0		
21CSE619T ³	Smart Convergent Technologies	3	0	0	3	
21CSE620T ³	Cognitive Internet of Things	3	0	0		
21CSE600T ¹	Journal Publication	0	0	0	3	
21CSE621T ³	Advanced Distributed Systems	3	0	0		
21CSE623T ³	Wireless Sensor Networks in IoT	3	0	0	3	
21CSE624T ³	Fog Networks in IoT	3	0	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 (OR)	0	0	40	20	
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

25. (i) Program Articulation Matrix: M.Tech Internet of Things

Course Code	Course Name	Programme Outcomes		
		1	2	3
21CSC529T	Inferential Statistics	2	2	1.67
21CSC519J	Web Development for Internet of Things	3	0	3
21CSC522J	Embedded System and Software development for Internet of Things	2.6	0	2.75
21CSC520J	Cloud Storage and Edge Computing	3	0	3
21CSC566J	Cyber Physical Systems in IoT	2.25	2	2.5
21CSC601T	Case Studies			
21CSE566T	IoT Data Analytics	2.6	0	2
21CSE567T	Communication and Networking Technologies for Internet of Things	2	0	3
21CSE568T	Privacy and Security in IoT	3	0	3
21CSE569T	Components and Energy Optimization Techniques for Internet of Things	3	0	3
21CSE570T	Sensor Data Management in IoT	3	0	3
21CSE571T	SDN and NFV for Internet of Things	2	0	3
21CSE572T	IoT Visualization	3	0	2.6
21CSE573T	Real Time Systems in Emerging IoT	3	0	3
21CSE574T	Digital Twins Driven Distributed IoT Solutions	2.25	2	2.5
21CSE619T	Smart Convergent Technologies	2.6	0	3
21CSE620T	Cognitive Internet of Things	2.6	0	3
21CSE621T	Advanced Distributed Systems	2.8	0	2.5
21CSE622T	Industrial Internet of Things	3	0	3
21CSE623T	Wireless Sensor Networks in IoT	2.75	0	2.5
21CSE624T	Fog Networks in IoT	3	0	2.75
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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