# **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 2023)



## 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

#### 33. B.Tech. in Electronics and Computer Engineering

#### 33. (a) Mission of the Department

001 (0) 21220	and the printers
HVIISSION SIIIII — I	Build an educational process that is well suited to local needs as well as satisfies the national and international accreditation requirements.
	Attract the qualified professionals and retain them by building an environment that fosters work freedom and empowerment.
Mission Stmt – 3	With the right talent pool, create knowledge and disseminate, get involved in collaborative research with reputed universities and produce competent graduands.

33. (b) Program Educational Objectives (PEO)

00. (0) -10	8 min 2 da
PEO – 1	Apply the acquired knowledge and skills in solving real-world engineering problems, considering national/global and societal issues such as health, environment, and safety.
PEO – 2	Devise novel computer-based embedded solutions/ products which are economically feasible and socially relevant.
PEO – 3	Develop an attitude toward pursuing knowledge and advanced education for sustained career advancement to adapt to emerging fields.
PEO – 4	Demonstrate leadership qualities and effective communication skills to work in a team of enterprising people in a multidisciplinary and multicultural environment with strong adherence to professional ethics.

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

	Mi	ssion Stmt.	-1	Mission Stmt 2	Mission Stmt 3
PEO - 1		1		2	3
PEO-2		3	State St.	3	3
PEO-3		2	4000	1.40	3
PEO-4		3	V 17/1	3	3

<sup>3 –</sup> High Correlation, 2 – Medium Correlation, 1 – Low Correlation

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

			E o	Ş. 14.	Pro	gram Ou	tcomes (	PO)		100	47		Prog	gram Spe	ecific
	1	2	3	4	5	6	7	8	9	10	11	12	Out	com <mark>es (</mark> P	'SO)
	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	PS0-1	<mark>7-08</mark> -	PSO-3
PEO - 1	3	3	7	15	A-R	3	3	2	-	-	-	77	3	-	-
PEO - 2			3-	3	3	3	LIL		2	$E_{i}$	3	-/		3	-
PEO - 3	-		_	3	3	-	2	2		2		3	7-2	2	3
PEO - 4	-		-		-	-	-	3	3	3	3	ر ٠٠.	-		3

<sup>3 –</sup> High Correlation, 2 – Medium Correlation, 1 – Low Correlation

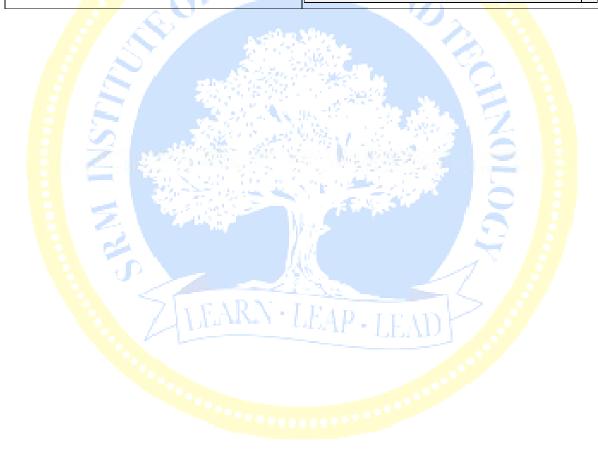
#### PSO – Program Specific Outcomes (PSO)

PSO - 1	Problem-Solving Skills: Apply the concepts of electronics, signal processing, embedded systems and programming using latest
F30-1	hardware and software tools to design, develop and implement application-oriented computing systems.
PSO-2	Professional Skills: Demonstrate analytical and managerial skills to arrive at cost effective and optimum solutions either
P30-2	independently or as a team.
PSO - 3	Successful Career and Entrepreneurship: Carry out their professional responsibilities in an ethical manner giving due consideration
50-3	to societal and environmental well-being.

## 33. (e) Program Structure: B.Tech. in Electronics and Computer Engineering

	Humanities & Social Sciences						Basic Science Courses (B)				
	including Management Courses (H)					_	,	Н	ours	: /	
C		Н	ours	; /		Course	Course		Vee		
Code	Course Title		Veel			Code	Title	L	Т	Р	С
Code		L	Т	Р	С	21PYB101J	Physics: Electromagnetic Theory,	3	1	2	5
	Communicative English	2	1	0	3		Quantum Mechanics, Waves and Optics				_
21LEH102T						21CYB101J	Chemistry	3	1	2	5
21LEH103T						21MAB101T	Calculus and Linear Algebra	3	1	0	4
21LEH104T		2	1	0	3	21MAB102T	Advanced Calculus and Complex	3	1	0	4
21LEH105T		-	'		"	ZTWINDTOZT	Analysis	Ů			
21LEH106T						21MAB201T	Transforms and Boundary Value	3	1	0	4
21LEH107T							Problems				Ľ
	Philosophy of Engineering	1	0	2	2		Probability and Stochastic Processes	3	1	0	4
	Social Engineering	2	0	0	2		Discrete Mathematics	3	1	0	4
21GNH401T	Behavioral Psychology	2			3	21BTB103T	Biology	2	0	0	2
	To	otal	Cre	dits	13		To	otal	Cre	dits	32
	Engineering Science Courses (S)						Professional Core Courses (C)				
		Н	ours	; /			,	Н	ours	s /	
Course	Course		Veel			Course	Course		Nee		
Code	Title	L	Т	Р	С	Code	Title	L	Т	Р	С
21MES101L	Basic Civil and Mechanical Workshop	0	0	4	2	21ECC112J	Systems Programming	3	0	2	4
	Engineering Graphics and Design	0	0	4	2	21ECC212T	Data Structures and Algorithms	3	0	0	3
	Electrical and Electronics Engineering	3	1	0	4	21ECC213J	Analog Devices and Circuits	3	0	2	4
	Programming for Problem Solving	3	0	2	4		Digital Logic Design	3	0	0	3
	Computer Organization and Architecture	3	1	0	4		Signal Processing	3	0	0	3
21DCS201P	Design Thinking and Methodology	1	2	0	3		Object Oriented Design and Programming	3	0	2	4
	Data Science	2	0	0	2		Data Structures Laboratory	0	0	4	2
	To	otal	Cre	dits	21	21ECC312T	Hardware Interfacing and Networking	3	0	0	3
				-			Embedded Microcontrollers	3	1	0	4
	Non Credit Courses (M)			. 1		21ECC314J	Embedded Hardware and Operating	2	_	٠	3
Course	Course		ours			21ECC314J	systems	2	0	2	3
Code	Title	Η'	<u>Vee</u> │⊤	к Р	С	21ECC315T	Database Management Systems	3	0	0	3
2100111011	Professional Skills and Practices	0	0	2	0		Data Communication and PLC	3	0	0	3
	General Aptitude	0	0	2	0	21ECC412J	Programming with Python	2	0	2	3
	Verbal Reasoning	0	0	2	0	21ECC413T	FPGA based Embedded Systems	3	0	0	3
	Critical and Creative Thinking Skills	0	0	2	0	21CSC206T	Artificial Intelligence	2	1	0	3
	Analytical and Logical Thinking Skills	0	0	2	0		To	otal	Cre	dits	48
	Employability Skills and Practices	0	0	2	0		Open Elective Courses (0)				
	Environmental Science	1	0	0	0		(Any 3 courses)				
	Constitution of India	1	0	0	0		(Arry 3 courses)		ours	. /	
	Universal Human Values – Introduction	1	0	0	0	Course	Course		Vee		
	Professional Ethics	1	0	0	0	Code	Title			Р	С
	Universal Human Values-II: Understanding					21FCO101T	Short Range Wireless Communication	3	0		_
21LEM202T	Harmony and Ethical Human Conduct	2	1	0	3		Electronic Circuits and Systems		0		
	Indian Art Form	1	0	0	0		Modern Wireless Communication				
	Indian Traditional Knowledge	1	0	0	0	21ECO103T	Systems	3	0	0	3
	Physical and Mental Health using Yoga		Ť	Ť	J	21ECO104.I	PCB Design and Manufacturing	2	0	2	3
	National Service Scheme	1		_			Fiber Optics and Optoelectronics	3	0		3
	National Cadet Corps	0	0	2	0		Embedded System Design using Arduino	2	_	2	
	National Sports Organization	1					Embedded System Design using				
270711177072		otal	Cre	dits	03	21ECO107J	Raspberry Pi	2	0	2	3
						21ECO108J	3D Printing Hardware and Software	2	0	2	3
Project Wo	ork, Seminar, Internship in Industry / High	ner 1	Гесh	nic	al						09
	Institutions (P)	Но	urs /	_							
Course	Course		urs / eek								
Code	Title	-		P	С						
21GNP301	L Community Connect (	<u>-   (</u>	_	2	1						
21ECP302		_	_	6							
21ECP302		_	_	0	3						
21ECP303		_	_	30	15						
21ECP401		_	_	_	10						
21ECP402		_	_	10	5						
21201403			cred								
		·ui (	, eu	ı tə	IJ	]					

	Professional Elective Courses (E) (Any 6 Courses)					Professional Elective Courses (E)							
Course Code	Course Title		ours Vee T		С	Course Code		Hours / Week L T P					
	Sub-Stream: Electronics Engineering				Sub-Stream: Computer Engineering								
21ECE210P	IoT System Design	2	1	0	3	21ECE231T	Principles of Cloud Computing	3	0	0	3		
21ECE211T	Electromagnetics and Antenna Theory	3	0	0	3	21ECE232T	Data Analysis and Visualization	3	0	0	3		
21ECE2121	Control Systems: Theory and	3	0	0	3		Machine Learning Algorithms	2	0	2	3		
	Applications	_	_	_	_		Full Stack Development	3	0	0	3		
	Wireless and Optical Sensors	3	0	0	3		Data Mining and Analytics	3	0	0	3		
	Applied Digital Signal Processing	2	0	2	3		Multi-Core Architecture and Programming	2	0	2	3		
21ECE311T	Digital Communication Systems	3	0	0	3	21ECE333T	Hardware Software Co-Design	3	0	0	3		
21ECE421T	Wireless Communication Networks	3	0	0	3	21ECE304T	Cyber Physical System Framework	3	0	0	3		
21ECE410T	ASIC Design	3	0	0	3	21ECE430T	Introduction to Virtual Computing	3	0	0	3		
21ECE411T	Embedded Linux	3	0	0	3	21ECE431T	Mobile Computing	3	0	0	3		
21ECE412T	Algorithms for Cryptography	3	0	0	3	21ECE432T	Quantum Computing	3	0	0	3		
		t		П	П	21ECE433T	Deep Learning	3	0	0	3		
		•	4			21ECE434T	Web of Things	3	0	0	3		
							To	otal	Cred	dits	18		



## 33. (f) Programme Articulation: B.Tech. in Electronics and Computer Engineering

					Р	rogra	m Ou	tcome	es (PC	))					PSO	
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
Course Code	Course Name	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
21ECC112J	Systems Programming	2	2	3	2	3	-	-	-	-	-	-	-	2	-	-
21ECC203T	Digital logic Design	3	2	2	-	3	-	-	-	-	-	-	-	3	-	-
21ECC204T	Signal Processing	2	2.2	3	3	-	-	-	-	-	-	-	-	-	-	2.2
	Data Structures and Algorithms	1	2.4	2.6			-	-		-	-	-	-	2.3	2	3
	Analog Devices and Circuits	3	2	3	-		-	-	-	1	-	-	2	2	2	2
	Object Oriented Design and Programming	-	3	2.25	2	2.7	-		7.	-	-	-	-	3	2.5	-
	Data Structures Laboratory		1	2	1	_3_	-	-	-	٠.	-	-	-	2.3	2	3
	Hardware Interfacing and Networking	3	2	2.5	2	-1	7-	-	-	<b>.</b> -	•	-	-	1	-	-
	Embedded Microcontrollers			3	3	2	5 - 7	1 -	-	-			-	3	3	-
21EUU3143	Embe <mark>dded Hardw</mark> are and Operating Syst <mark>ems</mark>	3	-	-	2	2	-	Ų/	1	Ÿ	-		-	3	-	-
	Data Base Management Systems	2.4	2.2	2	-	3	-	-	Υ.	<i>j.</i>		-		3	2	-
	Data Communication and PLC	2	2.3	2	3	3	-	-	-	-1		-		2	-	2
	Programming with Python		3	3	2.5	3	-	-	-	3	1	-		2	-	2.7
	FPGA based Embedded Systems	2.3	-	3	46.1	2.6	-	-	-	-	Œ.		-	2.7	-	-
	IOT System Design	3	500	2	2	1.7	Ĭ	-	-	-	-	3	2.5	2.7	-	2
	Electromagnetics and Antenna Theory	2.6	2.4	۲-,		15 <sub>0.</sub>		-	-	-	-1		-	2	-	-
	Control Systems: Theory and Applications	3	2.75	2	1	. 76	- 1	-	-1	-	-		-	3	-	-
	Wireless and Optical Sensors	3	1	1.5	- 1	-	-	-	12	1-	-	-	٠.	-	-	2
	Principles of Cloud Computing	3	2.25	10	2	2	15.4		199		-	- 1		3	2	-
	Data Analysis and Visualization	3	2.75	27	3	3	2		1-1	- 1	2.5	-	3	3	2.75	-
	Applied Digital Signal Processing	2.7	2.3	2.3	3	No.	150	16	-		-	-	-	-	-	2
	Digital Communication Systems	2.5	- 2	2.5				12.0	-1	-	-	-	-	2.3	2	3
	Full Stack Development	3	fu 41-7	2		-	<u> </u>	-		-	-	-	-	3	-	-
	Data Mining and Analytics	3	1.7	3	I.	2	_			b -	-		-	2.5	-	1
	Multi-core Architecture and Programming	3	2.7	2		3	-V-		-	-	-	-	-	2	-	-
	Hardware software Co-Design Embedded Linux	3	2	3	-	-	-	-	-	-	-		2	2	-	-
		2.5	3	3	3	3	-	-	-	-	l -	7-	/ - -	3	2.3	-
	Algorithms for Cryptography Wireless Communication Networks	3	2.8	2	2	-	-	2	-	-	- 4	7	-	2.3	2.3	3
	Introduction to Virtual Computing	3	2.0	2	-	_	1.5	-	_	7.	11	-	2	2.3	1	-
	Mobile Computing	3	3	1.5		3	2	-	-	3	7	-	-		-	+-
	Quantum Computing	3	2	3	1.5	2	-	-	-	-	4	-	1	-	-	<del>-</del>
	Deep Learning	3	2	3	3								3	2	_	3
	Web of Things	3	2	-	-	2.3	3	3	ΔŤ	1	-		-	3	_	-
	Machine Learning Algorithms	3	1.3		3	1.8	-		1	41	-			1.4		
	Cyber Physical System Framework	3	2.2	3	3	3	_			3				1.7		
21ECE410T		3		2.67	2	2	-	-	-	2		_	-	3	-	1.5
	Community Connect	۲	2.01	2.07		_	3		3	3	2			۲		1.0
21ECP302L		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
21ECP303T		3	2	۲	<u> </u>	J			,	,	۲	<u> </u>	٦	3	۲	۲
	Major Project	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Major Project	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
LILUI TULL		_	3	3	3	3	3	3	3	3	3	3			3	3
21ECP403L	Internshin	3	'2	'<		< -		~	٠,٠	'~	'~	2	3	3	· · · ·	

## 33. (g) Implementation Plan: B.Tech. in Electronics and Computer Engineering

1	Semester – I				$\neg$		Semester – II						
		Н	ours	: /		Hou							
Course	Course		Week			Course	Course	1	Wee				
Code	Title	П	T	Р	С	Code	Title	$\mathbf{T}$	T	Р	l c		
21LEH101T	Communicative English	2	1	0	3	21LEH102T	Chinese				ľ		
	Calculus and Linear Algebra	3	1	0	4	21LEH103T		1					
	Physics: Electromagnetic Theory,					21LEH104T		١.					
21PYB101J	Quantum Mechanics, Waves and Optics	3	1	2	5	21LEH105T		2	1	0	3		
21MES102L	Engineering Graphics and Design	0	0	4	2	21LEH106T		1					
	Electrical and Electronics Engineering	3	1	0	4		Spanish	1					
	Environmental Science	1	0	0	0		Philosophy of Engineering	1	0	2	2		
	Professional Skills and Practices	0	0	2	0		Advanced Calculus and Complex				ı		
	Constitution of India	1	0	0	0	21MAB102T	Analysis	3	1	0	4		
ZILLIVITOTT		otal	•	dite	•	21CYB101J		3	1	2	5		
		,tui	010	uito	10		Systems Programming	3	0	2	4		
	Semester – III						Programming for Problem Solving	3	0	2	4		
	Comester – m	Н	ours	: /		21BTB103T		2	0	0	2		
Course	Course		Vee				Basic Civil and Mechanical Workshop	0	0	4	2		
Code	Title	,	T	Р	С		General Aptitude	0	0	2	0		
21MAR201T	Transforms and Boundary Value Problems	3	1	0	4		Physical and Mental Health using Yoga	U	U		U		
	Social Engineering	2	0	0	2		National Service Scheme						
	Computer Organization and Architecture	3	1	0	4		National Cadet Corps	0	0	2	0		
	Analog Devices and Circuits	3	0	2	4			-					
	Digital Logic Design	3	0	0	3	ZTGNWT04L	National Sports Organization	-4-1	Cua	4:4-	20		
	Object Oriented Design and Programming	3	0	2	4			otal	∪re	aits	20		
	Professional Ethics	1	0	0	0		Semester – IV						
	Verbal Reasoning	0	0	2	0		Semester – IV	1 1	la	- /			
1	Jniversal Human Values-II: Understanding	U	0		U	Course	Course		lours Wee				
		2	1	0	3	Code	Title	-	_		٦,		
<u>    r</u>	Harmony and Ethical Human Conduct	4-1	O	-1:4 -	0.4	0414400007	D b - b 11/4 d Ob b b' - D	L	T	P	C		
	10	otal	Cre	aits	24		Probability and Stochastic Processes	3	1	0	4		
	Faith Fellish	ò	1		į il		Data Structures and Algorithms	3	0	0	3		
	Semester – V						Signal Processing	3	0	0	3		
		Н	ours	:/			Data Structures Laboratory	0	0	4	2		
	C			,,							3		
Course	Course	lι		k			Artificial Intelligence	2	1	0			
Course Code	Title	١ ١	Vee		С	Е	Professional Elective-I				3		
Code	Title	L	Vee T	Р	C 4	E 21DCS201P	Professional Elective-I Design Thinking and Methodology	1	2	0	3		
Code 21MAB302T	Title  Discrete Mathematics	L 3	Vee T 1	P 0	4	E 21DCS201P	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills	1 0	2 0	0 2	3 3 0		
Code 21MAB302T 21ECC313P	Title  Discrete Mathematics  Embedded Microcontrollers	L 3 3	Vee T 1	P 0	4	E 21DCS201P	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills	1	2 0	0 2	3 3 0		
Code 21MAB302T 21ECC313P 21ECC315T	Title  Discrete Mathematics  Embedded Microcontrollers  Database Management Systems	1 3 3 3	Vee T 1 1 0	P 0 0	4 4 3	E 21DCS201P	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills	1 0	2 0	0 2	3 3 0		
Code  21MAB302T  21ECC313P  21ECC315T  21ECC317T	Title  Discrete Mathematics  Embedded Microcontrollers  Database Management Systems  Data Communication and PLC	L 3 3	Vee T 1	P 0	4 4 3 3	E 21DCS201P	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills	1 0 otal	2 0 Cre	0 2 dits	3 3 0		
Code  21MAB302T  21ECC313P  21ECC315T  21ECC317T  E	Title  Discrete Mathematics  Embedded Microcontrollers  Database Management Systems  Data Communication and PLC  Professional Elective – II	1 3 3 3	Vee T 1 1 0	P 0 0	4 4 3 3 3	E 21DCS201P	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills	1 0 otal	2 0 Cre	0 2 dits	3 3 0		
Code  21MAB302T  21ECC313P  21ECC315T  21ECC317T  E  O	Title  Discrete Mathematics  Embedded Microcontrollers  Database Management Systems  Data Communication and PLC  Professional Elective – II  Open Elective – I	L 3 3 3 3	Vee T 1 0 0	P 0 0 0	4 4 3 3 3 3	E 21DCS201P 21PDM202L	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills  T Semester – VI	1 0 otal	2 0 Cre	0 2 dits	3 0 21		
Code  21MAB302T  21ECC313P  21ECC315T  21ECC317T  E  O  21GNP301L	Title  Discrete Mathematics  Embedded Microcontrollers  Database Management Systems  Data Communication and PLC  Professional Elective – II  Open Elective – I  Community Connect	L 3 3 3 3 0	Vee T 1 0 0	P 0 0 0 0	4 3 3 3 3 1	E 21DCS201P 21PDM202L Course Code	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills  T  Semester – VI  Course Title	1 0 otal	2 0 Cre	0 2 dits	3 3 0 21		
Code  21MAB302T  21ECC313P  21ECC315T  21ECC317T  E  O  21GNP301L  21PDM301L	Title  Discrete Mathematics  Embedded Microcontrollers  Database Management Systems  Data Communication and PLC  Professional Elective – II  Open Elective – I  Community Connect  Analytical and Logical Thinking Skills	3 3 3 3 0 0	Vee T 1 1 0 0 0	P 0 0 0 0	4 3 3 3 3 1 0	E 21DCS201P 21PDM202L  Course Code 21CSS303T	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills  T  Semester – VI  Course Title Data Science	1 0 Total	2 0 Cre Hours Wee	0 2 dits	3 3 0 21		
Code  21MAB302T  21ECC313P  21ECC315T  21ECC317T  E  O  21GNP301L  21PDM301L	Title  Discrete Mathematics  Embedded Microcontrollers  Database Management Systems  Data Communication and PLC  Professional Elective – II  Open Elective – I  Community Connect  Analytical and Logical Thinking Skills  Indian Art Form	3 3 3 3 0 0	Vee T 1 1 0 0 0 0 0 0 0 0	P 0 0 0 0	4 4 3 3 3 3 1 0	E 21DCS201P 21PDM202L  Course Code 21CSS303T 21ECC312T	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills  T  Semester – VI  Course Title Data Science Hardware Interfacing and Networking	1 0 otal	2 0 Cre Hours Wee	0 2 dits	3 3 0 2 2		
Code  21MAB302T  21ECC313P  21ECC315T  21ECC317T  E  O  21GNP301L  21PDM301L	Title  Discrete Mathematics  Embedded Microcontrollers  Database Management Systems  Data Communication and PLC  Professional Elective – II  Open Elective – I  Community Connect  Analytical and Logical Thinking Skills  Indian Art Form	3 3 3 3 0 0	Vee T 1 1 0 0 0 0 0 0 0 0	P 0 0 0 0	4 3 3 3 3 1 0	E 21DCS201P 21PDM202L Course Code 21CSS303T 21ECC312T	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills  T Semester – VI Course Title Data Science Hardware Interfacing and Networking Embedded Hardware and Operating	1 0 Total	2 0 Cre Hours Wee	0 2 dits	3 3 0		
Code  21MAB302T  21ECC313P  21ECC315T  21ECC317T  E  O  21GNP301L  21PDM301L	Title  Discrete Mathematics  Embedded Microcontrollers  Database Management Systems  Data Communication and PLC  Professional Elective – II  Open Elective – I  Community Connect  Analytical and Logical Thinking Skills  Indian Art Form	3 3 3 3 0 0 1	Vee     T	P 0 0 0 0 0 2 2 2 0 0 dits	4 4 3 3 3 3 1 0	E 21DCS201P 21PDM202L  Course Code 21CSS303T 21ECC312T 21ECC314J	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills  T  Semester – VI  Course Title Data Science Hardware Interfacing and Networking Embedded Hardware and Operating Systems	1 0 Total L 2 3	2 0 Cree	0 2 dits	3 3 0 21 C 2 3 3		
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Code  21MAB302T 21ECC313P 21ECC315T 21ECC317T E O 21GNP301L 21PDM301L 21LEM301T  Course	Title  Discrete Mathematics  Embedded Microcontrollers  Database Management Systems  Data Communication and PLC  Professional Elective – II  Open Elective – I  Community Connect  Analytical and Logical Thinking Skills  Indian Art Form  Te  Semester – VII  Course	3 3 3 3 0 0 1 otal	Vee     T	P 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 4 3 3 3 1 0 0 21	E 21DCS201P 21PDM202L  Course Code 21CSS303T 21ECC312T 21ECC314J E E	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills  T  Semester – VI  Course Title Data Science Hardware Interfacing and Networking Embedded Hardware and Operating Systems Professional Elective – III Professional Elective – IV	1 0 Total L 2 3	2 0 Cree	0 2 dits	3 3 0 2 2 1 2 1 3 3 3 3		
Code  21MAB302T  21ECC313P  21ECC317T  E  O  21GNP301L  21PDM301L  21LEM301T	Title  Discrete Mathematics  Embedded Microcontrollers  Database Management Systems  Data Communication and PLC  Professional Elective – II  Open Elective – I  Community Connect  Analytical and Logical Thinking Skills  Indian Art Form  To	3 3 3 3 0 0 1 otal	Vee T 1 1 0 0 0 0 0 Cres	P 0 0 0 0 0 0 2 2 0 0 dits	4 4 3 3 3 3 1 0	E 21DCS201P 21PDM202L  Course Code 21CSS303T 21ECC312T 21ECC314J E E O	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills  T  Semester – VI  Course Title  Data Science Hardware Interfacing and Networking Embedded Hardware and Operating Systems Professional Elective – III Professional Elective – IV Open Elective – II	1	lours Wee	0 2 dits	3 3 0 2 2 1 C 2 3 3		
Code  21MAB302T  21ECC313P  21ECC315T  21ECC317T  E  O  21GNP301L  21PDM301L  21LEM301T  Course Code  21GNH401T	Title  Discrete Mathematics  Embedded Microcontrollers  Database Management Systems  Data Communication and PLC  Professional Elective – II  Open Elective – I  Community Connect  Analytical and Logical Thinking Skills  Indian Art Form  To  Semester – VII  Course  Title  Behavioral Psychology	3 3 3 3 0 0 1 otal	Vee T 1 1 0 0 0 0 0 Cres Vee	P 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 4 3 3 3 1 0 0 21	E 21DCS201P 21PDM202L  Course Code  21CSS303T 21ECC312T  21ECC314J  E 0 21ECP302L	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills  T  Semester – VI  Course Title  Data Science Hardware Interfacing and Networking Embedded Hardware and Operating Systems Professional Elective – III Professional Elective – IV Open Elective – III Project	1 0 0 Total L 2 3 2 0 0	lours Weee	0 2 dits	3 3 0 2 2 3 3 3 3 3 3		
Code  21MAB302T  21ECC313P  21ECC315T  21ECC317T  E  O  21GNP301L  21PDM301L  21LEM301T  Course Code  21GNH401T  21ECC412J	Title  Discrete Mathematics  Embedded Microcontrollers  Database Management Systems  Data Communication and PLC  Professional Elective – II  Open Elective – I  Community Connect  Analytical and Logical Thinking Skills  Indian Art Form  To  Semester – VII  Course  Title  Behavioral Psychology  Programming with Python	0 0 1 total	Vee T 1 0 0 0 Cree  Ours Vee T	P 0 0 0 0 0 0 2 2 0 0 dits	4 4 3 3 3 1 0 0 21	E 21DCS201P 21PDM202L  Course Code  21CSS303T 21ECC312T  21ECC314J  E 0 21ECP302L 21ECP303T	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills  T  Semester – VI  Course Title  Data Science Hardware Interfacing and Networking Embedded Hardware and Operating Systems Professional Elective – III Professional Elective – IV Open Elective – III Project MOOC	1 0 0 Total L 2 3 3 2 0 0 3 3	2	0 2 dits s / ek P 0 0 2	3 3 0 2 2 3 3 3 3 3 3		
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Code  21MAB302T 21ECC313P 21ECC315T 21ECC317T E O 21GNP301L 21PDM301L 21LEM301T  Course Code  21GNH401T 21ECC412J 21ECC413T E E	Title  Discrete Mathematics  Embedded Microcontrollers  Database Management Systems  Data Communication and PLC  Professional Elective – II  Community Connect  Analytical and Logical Thinking Skills  Indian Art Form  To  Semester – VII  Course Title  Behavioral Psychology  Programming with Python  FPGA based Embedded Systems  Professional Elective – VI  Professional Elective – VI	L 3 3 3 3 0 0 1 1 0 1 1 1 L 2 2	Nee   T	P 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 4 3 3 3 1 0 0 21 C 3 3 3 3 3	E 21DCS201P 21PDM202L  Course Code 21CSS303T 21ECC312T 21ECC314J  E 0 21ECP302L 21ECP303T 21PDM302L	Professional Elective-I Design Thinking and Methodology Critical and Creative Thinking Skills  T Semester – VI  Course Title Data Science Hardware Interfacing and Networking Embedded Hardware and Operating Systems Professional Elective – III Professional Elective – IV Open Elective – III Project MOOC Employability Skills and Practices Indian Traditional Knowledge	1	2	0 2 dits s/ek P 0 0 2	3 3 3 3 3 3 3 3 3 6 0 2 7		
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#Students have to register either 21ECP401L or 21ECP402L and 21ECP403L both in eighth semester



## SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

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

Kattankulathur, Chengalpattu District 603203, Tamil Nadu, India