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 2024)



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

42. B.Tech. in Mechatronics Engineering

42. (a) Mission of the Department

Mission Stmt – 1	To impart the principles of Mechatronics Engineering to produce engineers who are capable of competing on the global stage.
Mission Stmt – 2	To excel at solving multidisciplinary challenges through structured teaching-learning methods and by providing state-of-the-art facilities.
	To cultivate future leaders with a strong sense of integrity, communication, teamwork, and entrepreneurship

42. (b) Program Educational Objectives (PEO)

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PEO – 1	Graduates will demonstrate a commitment to lifelong learning and career growth through participation and leadership in professional societies and organizations
	Graduates will advance professionally with a competency to solve challenges in industry, research, and academia leading to sustainable development of the society
PEO – 3	Graduates will be capable of solving ever-evolving-complex-system-integration problems through inter-disciplinary approaches.
PEO - 4	Graduates will be versatile in dealing with systems from a variety of modern engineering and technology fields with ease.

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

	Mission Stmt 1	Mission Stmt 2	Mission Stmt 3
PEO - 1	2	항상인다 다 인 heater	3
PEO - 2	3	NAME OF THE OWNER OWNER OF THE OWNER OWNE	2
PEO - 3	3	3	With Early
PEO - 4	3	3	

^{3 –} High Correlation, 2 – Medium Correlation, 1 – Low Correlation

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

	Program Outcomes (PO)											Prog	Program Specific				
	1	2	3	4	- 5	6	7	8	9	10	11	12	Outo	comes (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	PSO-1	PSO-2	PSO-3		
PEO - 1		-	/ -)	1 3 1	A K	1	1	2) -	2	4373	1	-	3	-		
PEO - 2	3	<u>.</u> - J	-	3	3	3	3	3	2	2	3	-	3	2	3		
PEO - 3	3	3	3	3	3	2	1	-	3	3	2	1	3	2	-		
PEO - 4	3	3	2	1	3	1	-	-	1	1			2	2	2		

^{3 –} High Correlation, 2 – Medium Correlation, 1 – Low Correlation

PSO – Program Specific Outcomes (PSO)

PSO - 1	Graduates will apply scientific principles for modelling and simulation of multi-disciplinary engineering systems
PSO - 2	Graduates will be able to interpret specifications of elements to design and develop an integrated system
PSO - 3	Graduates will be able to control Mechatronics and automation systems using modern programming tools

42. (e) Program Structure: B.Tech. in Mechatronics Engineering

	Humanities & Social Sciences						Basic Science Courses (B)				
	including Management Courses (H)				Course	Course		lours			
Course	Course		ours			Code	Title	١.	Nee		
Code	Title	_\	Vee T	k P	С		Calculus and Linear Algebra	<u>2</u>	T	P 0	C 4
211 FH101T	Communicative English	2	1	0	3		21CYB101J Chemistry 3		1	2	5
21LEH102T			-	U	J				0	0	2
21LEH103T							21MAB102T Advanced Calculus and Complex Analysis 21PYB104J Physics: Mechanics 31MAB201T Transforms and Boundary Value				
	German								1	0	4
21LEH105T		2	1	0	3				1	2	5
21LEH106T									1	0	4
21LEH107T							Problems		1		
21LEH108T							21MAB202T Numerical Methods			0	4
	Philosophy of Engineering	1	0	2	2	21MAB301T	Probability and Statistics	3	1	0	4
	Social Engineering	2	0	0	2		10	otai	Cre	aits	32
21GNH4011	Behavioral Psychology	2		0	3		Professional Core Courses (C)				
		otai	Cre	aits	13	Course	Course		lours		
	Engineering Science Courses (S)			,		Code	Title	١	Nee		
Course	Course		ours						Τ	Р	С
Code	Title	٧ ا	Veel		_	21MHC101P 1		2	1	0	3
21CSS101J	Programming for Problem Solving	3	0	P 2	C 4		Electrical actuators and Drives	3	0	0	3
	Basic Civil and Mechanical Workshop	0	0	4	2		Analog and Digital Electronics	2	0	2	3
	Engineering Graphics and Design	0	0	4	2	21MHC203J	Fluid power system and Automation Electrical Actuators and Drives	0	0	2	3
	Electrical and Electronics Engineering	3	1	0	4	21MHC204L 1	Laboratory	U	U	2	'
	Thermodynamics and Heat Transfer	3	0	0	3	21MHC205T	Microcontroller and Embedded Systems	3	0	0	3
	Design Thinking and Methodology	1	2	0	3	21MHC206T	Mechanics of Solids and Fluids	3	0	0	3
	Data Science	2	0	0	2		Microcontroller and Embedded Systems	0	0	2	1
		otal	Cred	dits	20	21MHC207L ¹	Laboratory			_	
	Non Credit Courses (M)					21MHC208L ¹	Mechanics of Solids and Fluids	0	0	2	1
	Non Credit Courses (iii)	Н	ours	: /		Z TIVII TO ZOOL	Laboratory				
Course	Course		Veel			21MHC209T	Project Management and Industrial	2	1	0	3
Code	Title	L	Т	Р	С		Practices		_	_	
21PDM101L 1	Professional Skills and Practices	0	0	2		21CSC206T	Artificial Intelligence	2	1	0	3
21PDM102L 1	General Aptitude	0	0	2		21MHC301T System Dynamics and Control		3	0	2	3
	Verbal Reasoning	0	0	2	0	21MHC302J Design and Analysis of Machine Elements		2	U	2	3
	Critical and Creative Thinking Skills	0	0	2	U	21MHC303J			0	2	3
	Analytical and Logical Thinking Skills	0	0	2		21MHC304L ¹		0	0	2	1
	Employability Skills and Practices	0	0	2	_	21MHC305J		2	0	2	3
	Environmental Science	1	0	0	0		Kinematic Analysis and Dynamics of	3	0	0	3
	Constitution of India	1	0	0	0	21MHC306T	Mechanisms				
	Universal Human Values – Introduction Professional Ethics	1	0	0	0	21MHC307P 1		1	2	0	3
Z ILLIVIZUIT .	Universal Human Values-II:		U	U	U						46
21LEM202T 1			1	0	3	Project Wor	k, Seminar, Internship in Industry / High	er 1	Гесh	nic	al
	Human Conduct						Institutions (P)				
	Indian Art Form	1	0	0	0	Course	Course		urs /		
	Indian Traditional Knowledge	1	0	0	0	Code	Title	W	<u>eek</u>		
	Physical and Mental Health using Yoga						L	-		P	<u>C</u>
	National Service Scheme	0	0	2	0	21GNP301L 21MHP302L				6	1
	National Cadet Corps	ľ		_		21MHP302L 21MHP303T				0	3
21GNM104L ¹	National Sports Organization	Ļ	igsqcup		00	21MHP401L			_	30	15
	To	otal	Cred	dits	03	21MHP401L		_	_	20	10
						21MHP403L				10	5
	Open Elective Courses (O)					Cred	-				
	(Any 3 Course)										
Course	Course		ours								
Code	Title	_\	Vee		_						
21MHO201T	Smart Farming	3	0	P 0	3						
2 HVITIO30 I T		_	Cre	_	_						
		Judi	UI C	urto	UJ						

	Professional Elective Courses (E) (Any 7 Courses)				Professional Elective Courses (E)							
Course Code	Course Title	Hours / Week L T P C		Course Code	Course Title	Hours / Week L T P		С				
	Professional Elective -1						Professional Elective - 5					
21MHE401T	Fundamentals of Robotics	3	0	0	3	21MHE413T	Condition Monitoring Techniques	3	0	0	3	
21MHE402L 1	Visual Computing Laboratory	0	0	5	3	21MHE414T	Advanced Control Systems	3	0	0	3	
21MHE403T	Industrial Electronics	3	0	0	3	21MHE415T	Micro Electro Mechanical Systems	3	0	0	3	
	Professional Elective - 2		Professional Elective - 6									
21MHE404T	Robot Kinematics and Dynamics	3	0	0	3	21MHE416T	Geometric Modelling	3	0	0	3	
21MHE405L ¹	Neural Networks and Deep Learning	0	0	5	3	21MHE417T	Industrial Automation	3	0	0	3	
Z I IVITE4USL	Laboratory	U	0	Ü	J	21MHE418L 1	Robotics Laboratory	0	0	5	3	
21MHE406T	Virtual Instrumentation	3	0	0	3							
	Professional Elective - 3					21MHE419T	Digital Manufacturing	3	0	0	3	
21MHE407T	Autonomous Mobile Robotics	3	0	0	3	21MHE420T	Energy Harvesting methods and	3	0	0	3	
21MHE408L ¹	Measurement and Data Acquisition	0	0	5	3	21WITE4201	applications	3	U	U	J	
Z I IVITE4UOL	Laboratory	U	0	Ü	J	21MHE421T	Ergonomic Design	3	0	0	3	
21MHE409T	Advanced Microcontrollers and Signal	3	0	0	3	21MHE422T	Industrial Data Communication	3	0	0	3	
21WITE4091	Processors	J	0	U	J	21MHE423T	Digital Signal Processing	3	0	0	3	
	Professional Elective - 4										21	
21MHE410T	Machine Vision and Image Processing	3	0	0	3	1000						
21MHE411T	Applied Mechatronics Systems	3	0	0	3	1546.15	- T-					
21MHE412T	Real Time Embedded Systems	3	0	0	3							



42. (f) Programme Articulation: B.Tech. in Mechatronics Engineering

					P	rogra	m Ou	tcome	s (PO)					PSO	
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
Course Code	Course Name	Engineering Knowledge	Problem Analysis	besign/development of olutions	Conduct investigations of complex problems	Modern Tool Usage	The engineer and society	Environment & Sustainability	Ethics	ndividual & Team Work	Sommunication	Project Mgt. & Finance	ife Long Learning	SO-1	PSO-2	PSO-3
21MHS201T	Thermodynamics and Heat Transfer	1	2	മം	OS	2		ш	ш		0	п.		Δ.	п.	а.
	Elements of Mechatronics Systems	3	3				-	P								
	Electrical Actuators and Drives	3	2	2							_				1	2
	Analog and Digital Electronics	3	2	2						=					2	
	Fluid Power System and Automation	3	2	2		1					-				1	2
	Electrical Actuators and Drives Laboratory	3	2	2		- /					-		-		1	
						1		4	-		-					2
	Microcontroller and Embedded Systems	3	2	2		1	-		4							2
	Mechanics of Solids and Fluids	3	3	2				4	-	4		×.				
	Mechanics of Solids and Fluids Laboratory	3	3	2												
ZIWINGZUIL	Microcontroller and Embedded Systems Laboratory	3	1	2	h.,	1				١,	Ž		N			2
21MHC2091	Project Management and Industrial Practices				id."	2				1	7	3		1		
	Artificial Intelligence	- 2		277			7-									L T
21MHC301T	System Dynamics and Control	3	2	2	- 7	1		1			<u> </u>	(3		2
21MHC302J	Design and Analysis of Machine Elements	3 -	3	2		2	457.5					7		2	2	
2 <mark>1MHC30</mark> 3J	Measurement, Sensors and Interfaces	3	_ 1	2		4.74		4						1		
21MHC304L	Modelling and Control Laboratory	2	2	3		2							-3	3		2
	Manufacturing Processes	3	2	1	Čka.			- 1	FG 18	7.57			~	-		
21MHC306T	Kinematic Analysis and Dynamics of Mechanisms	1	2		77.2	3	, 10 100		1	1	Ż		_	4		
	Model Based Systems Engineering	3	3	7.5	2	1	- 71	1	70					2	2	
	Fundamentals of Robotics	3	2	2					142					2	2	
	Visual Computing Laboratory	-	3	3	1	2				. 7				2	2	
21MHF403T	Industrial Electronics	3	2	2										2	2	
	Robot Kinematics and Dynamics	3	3	2										2	2	
2 <mark>1MHE40</mark> 5L	Neural Networks and Deep Learning Laboratory	3	2	Ŋ.	4	2					7	Ę	3	2		2
21MHE406T	Virtual Instrumentation	3	2	3								-		2	2	
	Autonomous Mobile Robotics	3	2	J	2									2	2	
21MHE408L	Measurement and Data Acquisition	3	2	2	2	3				7.		Ť		2	2	
21MHE409T	Advanced Microcontrollers and Signal	2			3	1					74	٠,	7	٠,	7	
	Processors Machine Vision and Image Processing	2	2	2		1	.				۱.	-		2	2	
		3	2	3	7,4	1	-	-	-	1	+			2	2	
	Applied Mechatronics Systems	1				- 3		-11	11.7	20	4				_	
	Real Time Embedded Systems		3	3		2								2	2	
	Condition Monitoring Techniques	3	3	2		3								2	2	^
	Advanced Control Systems	3	2	3	_	2								3	^	2
	Micro Electromechanical Systems	3	3	_	2	_								2	2	
	Geometric Modelling	3	3	2		2									•	
	Industrial Automation	3	2			2		- 5						2	2	
21MHE418L	Robotics Laboratory	3	3			3	11.31							2	2	
	Digital Manufacturing	3	3		2									2	2	
21MHE4201	Energy Harvesting Methods and Applications	3	2	1										2	2	
	Ergonomic Design	3	1			2										
	Industrial Data Communication	3													1	1
	Digital Signal Processing	3	2			2									2	
	Program Average		2.28	2.15	2	1.95						3		2.04	1.90	2
	g	, 5	0											0 /		_

42. (g) Implementation Plan: B.Tech. in Mechatronics Engineering

21MAB101T Calc 21PYB104J Phy 21MES102L 1 Eng 21EES101T Elec 21CYM101T 1 Env 21PDM101L 1 Prot 21LEM101T 1 Con Course Code 21MAB201T Prot 21MHC201T Elec 21MHC203J Fluit 21MHC203J Fluit 21MHC204L 1 Elec Lab 21LEM201T 1 Prot 21LEM201T 1 Vert	Semester - III Course Title ansforms and Boundary Value oblems ectrical Actuators and Drives halog and Digital Electronics uid power system and Automation hocial Engineering hermodynamics and Heat Transfer ectrical Actuators and Drives horatory ofessional Ethics* erbal Reasoning* hiversal Human Values-II:	V L 2 3 0 3 1 0 1 otal	Ours Vee T 1 0 0 0 0 Cre Vee T 1 0 0 0 0 0 0 0 0 0 0 0 0 0	P	C 4 3 3 3 3	21LEH106T 21LEH107T 21LEH108T 21GNH101J 21MAB102T 21CYB101J 21MHC101P ¹ 21CSS101J 21BTB103T 21MES101L ¹ 21PDM102L ¹	Course Title Chinese French German Japanese Korean Spanish Russian Philosophy of Engineering Advanced Calculus and Complex Analysis Chemistry Elements of Mechatronics systems Programming for Problem Solving Biology Basic Civil and Mechanical Workshop General Aptitude*		1	0 2 0 2 0 2 0	2 4 5 3 4 2
Code 21LEH101T Con 21MAB101T Calc 21PYB104J Phy 21MES102L Eng 21EES101T Elec 21CYM101T Proi 21LEM101T Con Course Code 21MAB201T Froi 21MHC202J Ana 21MHC203J Fluid 21PDH209T Soc 21MHS201T The 21LEM201T Proi 21LEM201T Proi 21LEM201T Proi 21LEM201T Proi 21LEM201T The 21LEM201T Veri 21LEM201T Veri 21LEM201T Veri 21LEM201T Veri 21LEM201T Soc 21MHS201T Veri 21LEM201T Soc 21MHS201T Proi 21LEM201T Veri	Title communicative English alculus and Linear Algebra alguies :Mechanics agineering Graphics and Design extrical and Electronics Engineering avironmental Science* ofessional Skills and Practices constitution of India To Semester - III Course Title course Title ansforms and Boundary Value coblems extrical Actuators and Drives halog and Digital Electronics auid power system and Automation ocial Engineering ermodynamics and Heat Transfer extrical Actuators and Drives control Actuators and Drives contro	L 2 3 3 0 1 1 0 tal	T 1 0 0 0 Cre T 1	P 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 4 5 2 4 0 0 0 0 18	Code 21LEH102T 21LEH103T 21LEH104T 21LEH105T 21LEH106T 21LEH107T 21LEH108T 21GNH101J 21MAB102T 21CYB101J 21MHC101P 1 21CSS101J 21MBS103T 21MES101L 1 21PDM102L 1	Title Chinese French German Japanese Korean Spanish Russian Philosophy of Engineering Advanced Calculus and Complex Analysis Chemistry Elements of Mechatronics systems Programming for Problem Solving Biology Basic Civil and Mechanical Workshop General Aptitude*	1 3 3 2 3 2 0	1 0 1 1 1 0 0	0 2 0 2 0 2 0	3 2 4 5 3 4
21MAB101T Calc 21PYB104J Phy 21MES102L Phy 21MES101T Elec 21CYM101T Froi 21LEM101T Con Course Code 21MAB201T Proi 21MHC201T Elec 21MHC203J Fluid 21PDH209T Soc 21MHS201T The 21MHC204L Elec 21MHC204L Lab 21LEM201T Proi 21LEM201T Veri 21LEM201T Veri 21LEM201T Veri 21LEM201T The 21LEM201T Soc 21MHS201T The 21LEM201T Proi 21LEM201T Proi 21LEM201T Soc 21MHC204L Proi 21LEM201T Soc 21MHC204L Proi 21LEM201T Soc 21MHC301T Veri 21LEM201T Veri 21LEM201T Veri 21LEM201T Soc 21MHC301T Veri 21LEM201T Und Hun Course Code 21MAB301T Proi 21MHC301T Sys 21MHC303J Mea	alculus and Linear Algebra alguines and Linear Algebra alguineering Graphics and Design extrical and Electronics Engineering avironmental Science* offessional Skills and Practices anstitution of India To Semester - III Course Title ansforms and Boundary Value oblems extrical Actuators and Drives halog and Digital Electronics auid power system and Automation ocial Engineering hermodynamics and Heat Transfer extrical Actuators and Drives herbal Reasoning* aniversal Human Values-II:	3 3 0 3 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 2 2 2 2 2	1 1 0 0 0 Cree T 1 1 0 0 0 0 0 0 0 0 0 0	0 2 4 0 0 2 0 dits P 0 0 2 0	4 5 2 4 0 0 0 0 18 C 4 3 3 3	21LEH103T 21LEH104T 21LEH105T 21LEH106T 21LEH107T 21LEH108T 21GNH101J 21MAB102T 21CYB101J 21MHC101P1 21CSS101J 21BTB103T 21MES101L1 21PDM102L1	French German Japanese Korean Spanish Russian Philosophy of Engineering Advanced Calculus and Complex Analysis Chemistry Elements of Mechatronics systems Programming for Problem Solving Biology Basic Civil and Mechanical Workshop General Aptitude*	1 3 3 2 3 2 0	0 1 1 1 0 0	2 0 2 0 2	2 4 5 3 4
21PYB104J Phy 21MES102L Phy 21MES101T Elect 21CYM101T Protect 21PDM101L Protect 21LEM101T Elect 21LEM101T Elect Code 21MAB201T Protect 21MHC201T Elect 21MHC203J Fluit 21MHC204L Elect Labt 21LEM201T Protect 21MHC204L Unit 21LEM201T Unit 21LEM201T Unit 21LEM201T Vert 21LEM201T Sector 21MHS201T The 21LEM201T Protect 21MHC204L Sector 21MHC304L Sec	nysics: Mechanics Ingineering Graphics and Design Ingineering Graphics and Design Ingineering Graphics and Design Ingineering Graphics Engineering Invironmental Science* Information of India Semester - III Course Title Intitle I	3 0 3 1 0 1 0 1 0 1 0 1 0 1 0 1 2 2 2 2 3 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 0 0 0 Cre Ours Vee T 1 0 0 0 0 0 0 0 0 0 0	2 4 0 0 2 0 dits	5 2 4 0 0 0 18 C 4 3 3 3	21LEH104T 21LEH105T 21LEH106T 21LEH107T 21LEH108T 21GNH101J 21MAB102T 21CYB101J 21MHC101P1 21CSS101J 21BTB103T 21MES101L1 21PDM102L1	German Japanese Korean Spanish Russian Philosophy of Engineering Advanced Calculus and Complex Analysis Chemistry Elements of Mechatronics systems Programming for Problem Solving Biology Basic Civil and Mechanical Workshop General Aptitude*	1 3 3 2 3 2 0	0 1 1 1 0 0	2 0 2 0 2	2 4 5 3
21MES102L 1 Eng 21EES101T Elect 21CYM101T 1 Env 21PDM101L 1 Prot 21LEM101T 1 Con Course Code 21MAB201T Prot 21MHC201T Elect 21MHC203J Fluit 21MHC203J Fluit 21MHC204L 1 Elect Labt 21LEM201T 1 Prot 21LEM201T 1 Unit 21LEM201T 1 Unit 21LEM202T 1 Unit 21LEM202T 1 Unit 21LEM203T 1 Unit 21LEM203T 1 Unit 21LEM203T 3 Unit 21LEM303T 3 Unit 21MHC303J Mea	rectrical and Electronics Engineering over and Electronics Electronics over and Electronics over	0 3 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 2 2 2 3 0 0 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1	0 1 0 0 0 Cre Ours Wee	0 0 2 0 dits s / k P 0 2 2 0	2 4 0 0 0 18 C 4 3 3 3	21LEH105T 21LEH106T 21LEH107T 21LEH108T 21GNH101J 21MAB102T 21CYB101J 21MHC101P1 21CSS101J 21BTB103T 21MES101L1 21PDM102L1	Japanese Korean Spanish Russian Philosophy of Engineering Advanced Calculus and Complex Analysis Chemistry Elements of Mechatronics systems Programming for Problem Solving Biology Basic Civil and Mechanical Workshop General Aptitude*	1 3 3 2 3 2 0	0 1 1 1 0 0	2 0 2 0 2	2 4 5 3 4
21EES101T Electric El	ectrical and Electronics Engineering environmental Science* offessional Skills and Practices enstitution of India Semester - III Course Title ansforms and Boundary Value oblems ectrical Actuators and Drives enabled and Digital Electronics and power system and Automation encial Engineering electrical Actuators and Drives electrical Actuators and Drives encountered electronics and Heat Transfer electrical Actuators and Drives electrical Actuators electrical Actuators electrical Actuators electrical Actuators electrical Actuators electrical Actuators electrical Actuato	3 1 0 1 otal L 3 3 2 2 2 2 2 3 0	0 0 0 0 Cre ours Weee T 1 0 0 0	0 0 2 0 dits	4 0 0 0 18 C 4 3 3 3	21LEH106T 21LEH107T 21LEH108T 21GNH101J 21MAB102T 21CYB101J 21MHC101P ¹ 21CSS101J 21BTB103T 21MES101L ¹ 21PDM102L ¹	Korean Spanish Russian Philosophy of Engineering Advanced Calculus and Complex Analysis Chemistry Elements of Mechatronics systems Programming for Problem Solving Biology Basic Civil and Mechanical Workshop General Aptitude*	1 3 3 2 3 2 0	0 1 1 1 0 0	2 0 2 0 2	2 4 5 3 4
21EES101T	ectrical and Electronics Engineering environmental Science* offessional Skills and Practices enstitution of India Semester - III Course Title ansforms and Boundary Value oblems ectrical Actuators and Drives enabled and Digital Electronics and power system and Automation encial Engineering electrical Actuators and Drives electrical Actuators and Drives encountered electronics and Heat Transfer electrical Actuators and Drives electrical Actuators electrical Actuators electrical Actuators electrical Actuators electrical Actuators electrical Actuators electrical Actuato	1 0 1 otal H 1 3 3 2 2 2 2 3 0 1 1	0 0 0 0 Cre	0 2 0 dits	0 0 0 18 C 4 3 3 3	21LEH107T 21LEH108T 21GNH101J 21MAB102T 21CYB101J 21MHC101P1 21CSS101J 21BTB103T 21MES101L1 21PDM102L1	Spanish Russian Philosophy of Engineering Advanced Calculus and Complex Analysis Chemistry Elements of Mechatronics systems Programming for Problem Solving Biology Basic Civil and Mechanical Workshop General Aptitude*	3 2 3 2 0	1 1 1 0 0	0 2 0 2 0	4 5 3 4
21CYM101T Env 21PDM101L Prot 21LEM101T Con Course Code 21MAB201T Train Prot 21MHC201T Elect 21MHC203J Fluit 21MHC203J Fluit 21MHC204L Elect Lab 21LEM201T Prot 21MHC204L Unit 21LEM201T Unit 21LEM202T Unit 21LEM202T Unit 21LEM203T Unit 21LEM203T Unit 21LEM203T Unit 21LEM203T Unit 21LEM203T Unit 21LEM203T Unit 21LEM303T Prot 21MHC303J Mea	orivironmental Science* ofessional Skills and Practices onstitution of India Semester - III Course Title ansforms and Boundary Value oblems ectrical Actuators and Drives halog and Digital Electronics uid power system and Automation ocial Engineering hermodynamics and Heat Transfer ectrical Actuators and Drives ectrical Actuators and Drives horatory ofessional Ethics* erbal Reasoning* niversal Human Values-II:	0 1 otal L 3 3 2 2 2 2 3 0	0 0 0 Cre ours Neee	2 0 dits S / k P 0 2 2 0	0 0 18 C 4 3 3	21LEH107T 21LEH108T 21GNH101J 21MAB102T 21CYB101J 21MHC101P1 21CSS101J 21BTB103T 21MES101L1 21PDM102L1	Spanish Russian Philosophy of Engineering Advanced Calculus and Complex Analysis Chemistry Elements of Mechatronics systems Programming for Problem Solving Biology Basic Civil and Mechanical Workshop General Aptitude*	3 2 3 2 0	1 1 1 0 0	0 2 0 2 0	4 5 3 4
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Course Code 21MAB201T	Semester - III Course Title ansforms and Boundary Value oblems ectrical Actuators and Drives halog and Digital Electronics duid power system and Automation hocial Engineering hermodynamics and Heat Transfer ectrical Actuators and Drives horatory ofessional Ethics* erbal Reasoning* hiversal Human Values-II:	H \ \ \ L \ 3 \ 2 \ 2 \ 2 \ 3 \ 0 \ 1	Ours Wee 1 0 0 0 0 0 0	0 dits s / k P 0 0 2 2	C 4 3 3 3 3 3	21GNH101J 21MAB102T 21CYB101J 21MHC101P ¹ 21CSS101J 21BTB103T 21MES101L ¹ 21PDM102L ¹	Philosophy of Engineering Advanced Calculus and Complex Analysis Chemistry Elements of Mechatronics systems Programming for Problem Solving Biology Basic Civil and Mechanical Workshop General Aptitude*	3 2 3 2 0	1 1 1 0 0	0 2 0 2 0	4 5 3 4
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Code 21MAB201T	Course Title ansforms and Boundary Value oblems ectrical Actuators and Drives halog and Digital Electronics uid power system and Automation ocial Engineering hermodynamics and Heat Transfer ectrical Actuators and Drives horatory ofessional Ethics* erbal Reasoning* hiversal Human Values-II:	3 3 2 2 2 2 3 0	Vee T 1 0 0 0 0	P 0 0 2 2 2 0	4 3 3 3	21MHC101P1 21CSS101J 21BTB103T 21MES101L1 21PDM102L1	Elements of Mechatronics systems Programming for Problem Solving Biology Basic Civil and Mechanical Workshop General Aptitude*	2 3 2 0	1 0 0	0 2 0	3
Code 21MAB201T	Title ansforms and Boundary Value oblems ectrical Actuators and Drives halog and Digital Electronics uid power system and Automation hocial Engineering hermodynamics and Heat Transfer ectrical Actuators and Drives horatory ofessional Ethics* horbal Reasoning* hiversal Human Values-II:	3 3 2 2 2 2 3 0	Vee T 1 0 0 0 0	P 0 0 2 2 2 0	4 3 3 3	21CSS101J 21BTB103T 21MES101L ¹ 21PDM102L ¹	Programming for Problem Solving Biology Basic Civil and Mechanical Workshop General Aptitude*	3 2 0	0	2	4
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Code 21MAB301T Prol 21MHC301T Sys 21MHC303J Mea 21MHC302J Des Eler	Semester - V					21MHC206T	Mechanics of Solids and Fluids	3	0	0	3
Code 21MAB301T Prol 21MHC301T Sys 21MHC303J Mea 21MHC302J Des Eler	•	Н	ours	s /		21MHC207L 1	Microcontroller and Embedded Systems	0	0	2	1
21MAB301T Prol 21MHC301T Sys 21MHC303J Mea 21MHC302J Des Eler	Course		Nee		1 !		Laboratory Laboratory				
21MHC301T Sys. 21MHC303J Mea 21MHC302J Des Eler	Title	L	Τ	Р	С	21MHC208L 1	Mechanics of Solids and Fluids	0	0	2	1
21MHC301T Sys. 21MHC303J Mea 21MHC302J Des Eler	obability and Statistics	3	1	0	4		Laboratory				
21MHC303J Mea 21MHC302J Des Eler	stem Dynamics and Control	3	0	0	3	21MHC209T	Project Management and Industrial	2	1	0	3
21MHC302J Des Eler	easurement, Sensors and Interfaces	2	0	2	3		Practices Design Thicking and Mathedale and	_	2	0	1
Eler	esign and Analysis of Machine					21DCS201P 1	Design Thinking and Methodology	1	2	0	3
	ements	2	0	2	3	0400140001 1	Professional Elective – I	3	0	0	0
Proi	ofessional Elective – II	3	0	0	3	21PDM202L ¹	Critical and Creative Thinking Skills*	0	0	<u> </u>	٧
	pen Elective – I	3	0	0	3		10	itai	Crec	JITS	
21MHC304L 1 Mod	odelling and Control Laboratory	0	0	2	1		Semester - VI				
21PDM301L ¹ Ana	nalytical and Logical Thinking Skills*	0	0	2	0	Course	Course	l	ours		l
	dian Art Form	1	0	0	0	Code	Title	V	<u>Neek</u>		l
	ommunity Connect	0	0	2	1	Code	riue	L	Τ	Р	С
		otal	Cre		21	21CSS303T	Data Science	2	0	0	2
						21MHC305J	Manufacturing Processes	2	0	2	3
	Semester - VII					21MHC306T	Kinematic Analysis and Dynamics of	3	0	0	3
Course	Course		ours			2 11VII 103001	Mechanisms	J	U	U	J
Code	Title	. \	Nee			21MHC307P 1	Model Based Systems Engineering	1	2	0	3
		L	T	Р	С		Professional Elective – III	3	0	0	3
21GNH401T Behav		2	1	0	3	21MHP302L ¹	Project	0	0	6	3
		3	0	0	3	21MHP303T 1	MOOC	3	0	0	J
	essional Elective – IV	3	0	0	3	0	Open Elective – II	3	0	0	3
	essional Elective – V				3	21PDM302L 1	Employability Skills and Practices*	0	0	2	0
					3	21LEM302T ¹	Indian Traditional Knowledge	1	0	0	
O Open	essional Elective – V essional Elective – VI essional Elective – VII	3		0	3						0

#Students have to register either 21MHP401L or 21MHP402L and 21MHP403L both in eighth semester

I		Semester - VIII						
	Course	Course		lour: Vee	-			
	Code	Title	L	Т	Р	С		
l	21MHP401L	Major Project	0	0	30	15		
	21MHP402L	Major Project	0	0	20	10		
	21MHP403L	Internship#	0	0	10	5		
	Total Credits							





SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

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

Kattankulathur, Chengalpattu District 603203, Tamil Nadu, India