ACADEMIC CURRICULA

UNDERGRADUATE DEGREE PROGRAMMES

Bachelor of Technology

(B.Tech. - Four Years)

(Choice Based Flexible Credit System)

Regulations 2018

Volume - 1

(Revised in March 2019)



SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

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

Kattankulathur, Kancheepuram District 603203, Tamil Nadu, India



26. B.Tech. in Electronics and Computer Engineering

26. (a) Mission of the Department

Mission Statement -	Build an educational process that is well suited to local needs as well as satisfies the national and international accreditation
1	requirements.
Mission Statement -	Attract the qualified professionals and retain them by building an environment that foster work freedom and empowerment.
2	
Mission Statement -	With the right talent pool, create knowledge and disseminate, get involved in collaborative research with reputed institutes, and
3	produce competent graduands.

26. (b) Program Educational Objectives (PEO)

PEO - 1	Expertise using their mathematical and scientific knowledge to solve emerging real-world problems, design and create novel products and
1 20 - 1	solutions related to Electronics and Computer System Design, that are technically sound, economically feasible and socially acceptable
PEO - 2	Broad knowledge to establish themselves as creative practicing professionals, locally and globally, in technical / Managerial rolls ranging from
1 LO-2	design development problem Solving to Production in Software industries and R&D Sectors.
PEO - 3	Communication skills (in both written and oral forms) and critical reasoning skills in bridging the divide between advanced technology and end
FEO - 3	users in the practice of Electronics and Computer Engineering
PEO - 4	Sustained learning and adapting to a constantly changing field through graduate work, professional development, self-study and collaborative
FEO - 4	activities
PEO - 5	Leadership and initiative to ethically advance professional and organizational goals, facilitate the achievements of others, and obtain
PEU - 5	substantive results
PEO - 6	Ability to work productively as individuals and in groups (teamwork) of diverse cultural and multidisciplinary backgrounds.

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

	Mission Stmt 1	Mission Stmt 2	Mission Stmt 3
PEO - 1	L	M	H
PEO - 2	H	L	H
PEO - 2 PEO - 3 PEO - 4 PEO - 5 PEO - 6	L	L	M
PEO - 4	M	L	M
PEO - 5	The Part of the Pa	H	Н
PEO - 6	Н	Н	Н

H - High Correlation, M - Medium Correlation, L - Low Correlation

26. (d) Mapping Program Educational Objectives (PEO) to Program Learning Outcomes (PLO)

						Progra	am Lear	ning Ou	tcomes	(PLO)					
			Į Ti	4	Gr	aduate A	ttributes (GA)				7	Pro Out	gram S <mark>pe</mark> comes (F	ecific PSO)
N	Engineering Knowledge	Problem Analysis	Design & Development	Analysis, Design, Research	Modern Tool Usage	Society & Culture	Environment & Sustainability	Ethics	Individual & Team Work	Communication	Project Mgt. & Finance	Life Long Leaming	Intelligent Computing Systems	Project Management Techniques	New Technologies in Information and Communication
PEO - 1	Н		Н	Н	Н	М	М	Н	L		Н		Н	L	Н
PEO - 2		Н	М		М				L				М	L	
PEO - 3					L			М	L	Н			L	L	
PEO - 4					М				М	L		Н	L	L	
PEO - 5									М	М			L	М	
PEO - 6		36.36							Н	М			L	Н	

H – High Correlation, M – Medium Correlation, L – Low Correlation

PSO – Program Specific Outcomes (PSO)

PSO - 1	Specify, design, develop, test and manage reliable and efficient hardware and software products appropriate for an organization for intelligent computing systems.
PSO - 2	Apply project management techniques and appropriate methodologies to help an individual or organization achieve its goals, objectives and needs.
PSO - 3	Anticipate the changing direction of Information & Communication Technology, and evaluate and communicate the likely utility of new technologies to an individual or organization.

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

	Humanitias & Social Sciences						1 0 0				
	Humanities & Social Sciences including Management Courses (H)					Course	Engineering Science Courses (S) Course	Но	ırs/ V	Veek	
Course	Course	Ηοι	urs/\	Neek		Code	Title	L	T	P	С
Code	Title	L	Т	Р	С		Engineering Graphics and Design	1	0	4	3
18LEH101J	English	2	0	2	3	18EES101J	Basic Electrical and Electronics Engineering	3	1	2	5
18LEH102J		ļ	ļ				Civil and Mechanical Engineering Workshop	1	0	4	3
18LEH103J							Programming for Problem Solving	3	0	4	5
18LEH104J		2	0	2	3	18ECS301J	Applied Programing	2	0	2	3
18LEH105J							Total Learning Credits				19
18LEH106J	General Aptitude	0	0	2	1		Professional Core Courses (C)				
	Management Principles for Engineers	2	0	0	2	Course	Course	Ηοι	urs/V	Veek	
	Social Engineering	2	0	0	2	Code	Title	L	Т	Р	С
	Employability Skills & Practices	0		2	1	18ECC211J		3	0	2	4
	Total Learning Credits	-			12	18ECC212J		3	0	2	4
,						18ECC104T		3	1	0	4
	Basic Science Courses (B)						Analog Electronic Circuits Data Structures and Algorithms	3	0	2	4
Course	Course	Ηοι		Neek			Linear Integrated Circuits	3	0	2	4
Code	Title	L	T	Р	С		Object Oriented Design and Programming	3	0	2	4
	Physics: Electromagnetic Theory, Quantum	3	1	2	5		Computer Organization and Architectures	3	0	2	4
	Mechanics, Waves and Optics						Microcontrollers and Interfacing	3	0	2	4
18CYB101J		3	1	0	5		Database Management Systems	3	0	2	4
	Calculus and Linear Algebra Advanced Calculus and Complex Analysis	3	1	0	4		Hardware Interfacing and Networking	3	0	0	3
18MAR201T	Transforms and Boundary Value Problems	3	1	0	4		Embedded Hardware and Operating systems	3	0	2	4
	Probability and Stochastic Processes	3	1	0	4		FPGA Based Embedded Systems	3	0	2	4
	Discrete Mathematics for Engineers	3	1	0	4	18ECC351T	Comprehension	0	1	0	1
18BTB101T		2	0	0	2		Total Learning Credits				52
	Total Learning Credits			•	32		Project Work, Seminar, Internship In				
		+		-	-	0	Industry / Higher Technical Institutions (P)	11.	/ \	V I	
	Open Elective Courses (O)					Course	Course Title	HOL	urs/ V	Veek P	С
	(Any 4 Courses)					Code	Massive Open Online Course - I	L	1	Р	C
Code	Course Title	L	T	Р	С		Industrial Training-I	0	0	2	1
	Short-Range Wireless Communication	3		0	3	18ECP103L		U	U		'
18ECO102J	Electronic Circuits & Systems	2	0	2	3		Massive Open Online Course - II				
	Modern Wireless Communication Systems	3		2	3		Industrial Training-II	0	0	2	1
	Audio and Speech Signal Processing Underwater Acoustics	3	0	0	3	18ECP106L		1			
	PCB Design and Manufacturing	2	0	2	3		Minor Project	0	0	6	3
	Fiber Optics and Optoelectronics	3	0	0	3	18ECP108L	Internship	U	U	0	3
18ECO108J	Embedded System Design using Arduino	2		2	3	18ECP109L	Project	0	0	20	10
18ECO109J	Embedded System Design Using Raspberry Pi	2	0	2	3	18ECP110L	Semester Internship	U	U	20	
18ECO110J	3D Printing Hardware and Software	2	0	2	3		Total Learning Credits				15
18ECO121T	Basic Biomedical Engineering	3		0	3		Professional Elective Courses (E)				
	Hospital Information Systems	3	0	0	3		(Any 6 Elective Courses)				
	Biomedical Imaging	3		0	3	Course	Course	Ηοι		Veek	
	Human Assist Devices	3		0	3	Code	Title	L	Т	Р	С
18ECO1251	Quality Control for Biomedical Devices	3	0	0	3	105050117	Sub-Stream: Electronics Engineering	2	_	0	2
10ECO1201	Sports Biomechanics Virtual Instrumentation	2	0	2	3	18ECE2111	Electromagnetics and Antenna Theory Control Systems: Theory and Applications	3	0	0	3
	Analytical Instrumentation	3		0	3	18ECE2121	Applied Digital Signal Processing	2	0	2	3
	Sensors and Transducers	3	0	0	3	18ECE3113		3	0	0	3
	Industrial Automation	3		0	3	18ECE313T	Digital Communication Systems	3	0	0	3
	Fundamentals of MEMS	3		0	3	18ECE314T		3	0	0	3
. 52001001	Total Learning Credits				12		ASIC Design	3	0	0	3
	- Communication of Control		1				Embedded Linux	3	0	0	3
	Mandatory Courses (M)						Advanced Digital System Design	2	0	2	3
Code	Course Title	L	Т	Р	С	18ECE224T		3	0	0	3
	Professional Skills and Practices	0	0	2	0	18ECE243J		2	0	2	3
	Competencies in Social Skills	0	0	2	0	18ECE322T	Optoelectronics	3	0	0	3
	Entrepreneurial Skill Development	U	0		J	180052027	Sub-Stream: Computer Engineering Machine Learning - 1	3	0	0	3
	Critical and Creative Thinking Skills	0	0	2	0	18CSE3921		3	0	0	3
18PDM2041	Business Basics for Entrepreneurs	Ė					Computer Vision	3	0	0	3
	Analytical and Logical Thinking Skills	0	0	2	0		Data Mining and Analytics	3	0	0	3
18PDM301L	Entropropourchin Management			0	0		Deep Learning	3	0	0	3
18PDM301L 18PDM302L	Entrepreneurship Management	1	(1				IoT System Design	2	0	2	3
18PDM301L 18PDM302L 18LEM101T	Constitution of India	1	0		0						2
18PDM301L 18PDM302L 18LEM101T 18LEM102J	Constitution of India Value Education	1	0	1	0	18ECE331J	Multi-Core Architecture and Programming	2	0	2	3
18PDM301L 18PDM302L 18LEM101T 18LEM102J 18GNM101L	Constitution of India Value Education Physical and Mental Health using Yoga	+			0	18ECE331J 18ECE332T	Multi-Core Architecture and Programming Principles of Artificial Intelligence	3	0	0	3
18PDM301L 18PDM302L 18LEM101T 18LEM102J 18GNM101L 18GNM102L	Constitution of India Value Education Physical and Mental Health using Yoga NSS	1	0	1		18ECE331J 18ECE332T 18ECE333T	Multi-Core Architecture and Programming Principles of Artificial Intelligence Principles of Cyber-Physical Systems	3	0	0	3
18PDM301L 18PDM302L 18LEM101T 18LEM102J 18GNM101L	Constitution of India Value Education Physical and Mental Health using Yoga NSS NCC	0	0	2	0	18ECE331J 18ECE332T 18ECE333T 18ECE334T	Multi-Core Architecture and Programming Principles of Artificial Intelligence Principles of Cyber-Physical Systems Hardware Software Co-Design	2 3 3	0 0	0 0	3 3
18PDM301L 18PDM302L 18LEM101T 18LEM102J 18GNM101L 18GNM102L 18GNM103L 18GNM104L	Constitution of India Value Education Physical and Mental Health using Yoga NSS NCC	0	0	2	0	18ECE331J 18ECE332T 18ECE333T 18ECE334T 18ECE335T	Multi-Core Architecture and Programming Principles of Artificial Intelligence Principles of Cyber-Physical Systems Hardware Software Co-Design Introduction to Virtual Computing	2 3 3 3 3	0 0 0	0 0 0	3 3 3
18PDM301L 18PDM302L 18LEM101T 18LEM102J 18GNM101L 18GNM102L 18GNM103L 18GNM104L 18LEM109T 18LEM110L	Constitution of India Value Education Physical and Mental Health using Yoga NSS NCC NSO Indian Traditional Knowledge Indian Art Form	0	0 0 0 0	1 2 2 0 2	0 0 0 0	18ECE331J 18ECE332T 18ECE333T 18ECE334T 18ECE335T 18ECE336T	Multi-Core Architecture and Programming Principles of Artificial Intelligence Principles of Cyber-Physical Systems Hardware Software Co-Design Introduction to Virtual Computing Mobile Computing	2 3 3 3 3 3	0 0 0 0	0 0 0 0	3 3 3 3
18PDM301L 18PDM302L 18LEM101T 18LEM102J 18GNM101L 18GNM102L 18GNM103L 18GNM104L 18LEM109T 18LEM110L	Constitution of India Value Education Physical and Mental Health using Yoga NSS NCC NSO Indian Traditional Knowledge	1 0 0	0 0 0	1 2 2 0	0 0	18ECE331J 18ECE332T 18ECE333T 18ECE334T 18ECE335T 18ECE336T 18ECE337T	Multi-Core Architecture and Programming Principles of Artificial Intelligence Principles of Cyber-Physical Systems Hardware Software Co-Design Introduction to Virtual Computing Mobile Computing Web of Things	2 3 3 3 3 3 3	0 0 0 0 0	0 0 0 0 0	3 3 3 3 3
18PDM301L 18PDM302L 18LEM101T 18LEM102J 18GNM101L 18GNM102L 18GNM103L 18GNM104L 18LEM109T 18LEM110L	Constitution of India Value Education Physical and Mental Health using Yoga NSS NCC NSO Indian Traditional Knowledge Indian Art Form	1 0 0	0 0 0 0	1 2 2 0 2	0 0 0 0	18ECE331J 18ECE332T 18ECE333T 18ECE334T 18ECE335T 18ECE336T 18ECE337T 18ECE338T	Multi-Core Architecture and Programming Principles of Artificial Intelligence Principles of Cyber-Physical Systems Hardware Software Co-Design Introduction to Virtual Computing Mobile Computing Web of Things Quantum Computing	2 3 3 3 3 3 3 3	0 0 0 0 0 0	0 0 0 0 0 0	3 3 3 3 3 3
18PDM301L 18PDM302L 18LEM101T 18LEM102J 18GNM101L 18GNM102L 18GNM103L 18GNM104L 18LEM109T 18LEM110L	Constitution of India Value Education Physical and Mental Health using Yoga NSS NCC NSO Indian Traditional Knowledge Indian Art Form	1 0 0	0 0 0 0	1 2 2 0 2	0 0 0 0	18ECE331J 18ECE332T 18ECE333T 18ECE334T 18ECE335T 18ECE336T 18ECE337T 18ECE338T	Multi-Core Architecture and Programming Principles of Artificial Intelligence Principles of Cyber-Physical Systems Hardware Software Co-Design Introduction to Virtual Computing Mobile Computing Web of Things	2 3 3 3 3 3 3	0 0 0 0 0	0 0 0 0 0	3 3 3 3 3

26. (f) Program Articulation: B.Tech. in Electronics and Computer Engineering

					Pro	ogra	am	Lea	rning	g Out	come	es (F	PLO)		
						G	radu	ate A	ttribu	tes					PSO	
Course Code	Course Name	Engineering Knowledge	Problem Analysis	Design & Development	Analysis, Design, Research	Modern Tool Usage	Society & Culture	Environment & Sustainability	Ethics	Individual & Team Work	Communication	Project Mgt. & Finance	Life Long Learning	H PSO - 1	PSO - 2	PSO - 3
18ECS301J	Applied Programing	М		H	M									Н		M
18ECC211J	Solid State Semiconductor Devices	М	М	Н					М	Н				L	L	М
18ECC212J	Fundamentals of Computer System Design	Н	М	Н					М	Н				Н	L	
18ECC104T	Signals and Systems	Н	Н	М												Н
18ECC201J	Analog Electronic Circuits	Н		М	Н									М		М
	Data Structures and Algorithms	М	L	Н	Н									Н	L	
18ECC202J	Linear Integrated Circuits	М	L	Н	Н									Н	L	
	Object Oriented Design and Programming	М	М	Н		Н							L	Н	L	
	Computer Organization and Architectures	М	L	Н	Н	Н	М	L					1		L	Н
	Microcontrollers and Interfacing	Н	Ĺ	Н	Н	Н		-	Н	М			М	Н	L	
	Database Management Systems	М	Ŧ.		ř	М							···		_	
	Hardware Interfacing and Networking	М				707	L	Н	М					L		М
	Embedded Hardware and Operating systems	Н	L	Н		М	_	"	L	L				L	L	IVI
	FPGA based Embedded Systems	Н	_	М		IVI	Н	Н	ī	L			М	L	L	
	Massive Open Online Course - I	11		IVI			М	L			Н		Н		М	
	Comprehension	М	Н	Н	L	L	L	L	L	L	L	L	L	М	L	М
10ECC3311	MOOC / Industrial Training / Seminar – 1		П	П	L	L	_	_	L			L		IVI		IVI
		M					М	L		7	Н		Н		М	
	MOOC / Industrial Training / Seminar – 2	М					М	L			Н		Н		М	
	Project (Phase-I) / Internship (3-4 weeks)	М	М	Н	Н	М	Н	Н	L	Н	Н	Н	Н	Н	Н	М
	Project (Phase-II) / Semester Internship	М	М	Н	Н	М	Н	Н	L	Н	Н	Н	Н	Н	Н	М
	Electromagnetics and Antenna Theory	Н	Н	H	М								М			
18ECE212T	Control Systems: Theory and Applications	Н	Н	Н	H	Н							Н	Н		
	Applied Digital Signal Processing	Н	Н	L	М	L	m				L		Н	Н		Н
	Wireless and Optical Sensors	Н	Н											М	М	М
18ECE313T	Digital Communication Systems	Н	Н	H	Н										М	
18ECE314T	Wireless Communication Networks	Н	Н	Н	Н								i.,		М	
18ECE315T	ASIC Design	М		Н	М	Н										
18ECE316T	Embedded Linux	L	Н	Н												Н
18ECE231J	IoT System Design	М	М	Н		М	1								М	М
	Multi-Core Architecture and Programming	Н		М	M									М		Н
	Principles of Artificial Intelligence	Н	Н	Н										М	L	М
	Principles of Cyber-Physical Systems	Н		Н					Н	Н	Н			Н		Н
	Hardware/Software Co-Design	Н	Н	М	Н	Н								Н		
	Introduction to Virtual Computing	Н		Н		Н								Н		Н
	Mobile Computing	Н		Н										М	L	Н
	Web of Things	Н	Н		Н	Н								Н		Н
	Quantum Computing	Н	Н		Н	11								Н	L	Н
	Advanced Digital System Design	М	М	Н	11	М								-11	М	М
10ECE200J	Cryptography and Network Security	Н	IVI	М	М	IVI								М	IVI	Н
105052241	Digital Image and Video Processing	Н	Н	Н	IVI									M	L	М
			п						11	11	- 11				L	
	Opto Electronics	Н		Н					Н	Н	Н			Н		Н
	Machine Learning - I	Н	Н	М	Н	Н			-					Н		
	Data Analysis and Visualization	Н		Н		Н								Н	L.,	М
	Principles of Cloud Computing	M	М	Н		М									М	М
	Computer Vision	М	М	Н		М									М	М
	Data Mining and Analytics	Н		М	М									М		Н
18CSE484T	Deep Learning	Н	Н	Н										М	L	М

H – High Correlation, M – Medium Correlation, L – Low Correlation, PSO – Program Specific Outcomes (PSO)

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

	Semester - I						Semester - II				
Code	Course Title	Hou	rs/ V	/eek P	С	Code	Course Title	Hou	ırs/ W	/eek	С
18LEH10XJ	Chinese / French / German / Japanese/ Korean		0	2	3	18LEH101J	English	2	0	2	3
18MAB101T	Calculus and Linear Algebra	3	1	0	4		Advanced Calculus and Complex Analysis	3	1	0	4
18CYB101J		3	1	2	5	18PYB101J	Physics: Electromagnetic Theory, Quantum	3	1	2	5
	Programming for Problem Solving	3	0	4	5		Mechanics, Waves and Optics				
	Civil and Mechanical Engineering Workshop	1	0	4	3		Engineering Graphics and Design	1	0	4	3
	Professional Skills and Practices	0	0	2	0		Basic Electrical and Electronics Engineering	3	1	2	5
	Value Education	1	0	1	0		General Aptitude	0	0	2	0
18GNM102L			_	2	0		Constitution of India	0	0	2	
18GNM103L 18GNM104L		0	0	2	0	TOGNWITTL	Physical and Mental Health using Yoga Total Learning Credits	U	0	2	2°
10GINW104L	Total Learning Credits				20		Total Learning Credits				
	Total Learning Greats				20						
	Semester - III						Semester - IV				
Code	Course Title	Hou	irs/ V	/eek P	С	Code	Course Title	Hou L	ırs/ W	/eek	С
18MAB201T	Transforms and Boundary Value Problems	3	1	0	4	18MAB203T	Probability and Stochastic Processes	3	1	0	4
	Solid State Semiconductor Devices	3	0	2	4	18BTB101T		2	0	0	2
	Fundamentals of Computer System Design	3	0	2	4		Data Structures and Algorithms	3	0	2	4
18ECC104T	Signals and Systems	3	1	0	4		Analog Electronic Circuits	3	0	2	4
18CSC202J	Object Oriented Design and Programming	3	0	2	4		Professional Elective – 1	3	0	0	3
18PDH103T	Social Engineering	2	0	0	2		Open Elective – 1	3	0	0	3
	Competencies in Social Skills	0	0	2	0	18PDH102T	Management Principles for Engineers	2	0	0	2
	Entrepreneurial Skill Development		, i			18PDM202L	Critical and Creative Thinking Skills	0	0	2	0
18CYM101T	Environmental Science	1	0	0	0	18PDM204L	Business Basics for Entrepreneurs	U	U	2	
	Total Learning Credits				22		Total Learning Credits				22
			F	ч	100	777					
	Semester - V						Semester - VI				
Code	Course Title		rs/ V		С	Code	Course Title		ırs/ V		C
Code	Course Title	L	Τ	Р	С	Code	Course Title	L	Τ	Р	
18MAB302T	Discrete Mathematics for Engineers	L 3	T 1	P 0	4	18ECS301J	Applied Programing	L 2	T 0	P 2	3
18MAB302T 18ECC202J	Discrete Mathematics for Engineers Linear Integrated Circuits	3 3	T 1	P 0 2	4	18ECS301J 18ECC312T	Applied Programing Hardware Interfacing and Networking	2 3	T 0 0	P 2 0	3
18MAB302T 18ECC202J 18ECC311J	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing	3 3 3	T 1 0	P 0 2 2	4 4 4	18ECS301J 18ECC312T 18ECC313J	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems	2 3 3	T 0 0	P 2 0 2	3 4
18MAB302T 18ECC202J 18ECC311J	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture	3 3 3 3	T 1 0 0	P 0 2 2 2	4 4 4 4	18ECS301J 18ECC312T 18ECC313J	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension	L 2 3 3 0	T 0 0 0	P 2 0 2 0	3 4 1
18MAB302T 18ECC202J 18ECC311J	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2	L 3 3 3 3 3	T 1 0 0 0	P 0 2 2 2 2	4 4 4 3	18ECS301J 18ECC312T 18ECC313J	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3	L 2 3 3 0 3	T 0 0 0 1 1 0	P 2 0 2 0 0	3 3 4 1 3
18MAB302T 18ECC202J 18ECC311J 18CSC203J	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2	3 3 3 3	T 1 0 0	P 0 2 2 2	4 4 4 4	18ECS301J 18ECC312T 18ECC313J	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4	L 2 3 3 0 3 3 3	T 0 0 0 1 1 0 0 0	P 2 0 2 0 0 0 0	3 4 1 3 3
18MAB302T 18ECC202J 18ECC311J 18CSC203J	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Massive Open Online Course - I	L 3 3 3 3 3 3	T 1 0 0 0 0	P 0 2 2 2 2 0 0	4 4 4 3 3 3	18ECS301J 18ECC312T 18ECC313J 18ECC351T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3	L 2 3 3 0 3	T 0 0 0 1 1 0	P 2 0 2 0 0	3 3 4 1 3 3
18MAB302T 18ECC202J 18ECC311J 18CSC203J 18ECP101L 18ECP102L	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Massive Open Online Course - I Industrial Training-I	L 3 3 3 3 3	T 1 0 0 0	P 0 2 2 2 2	4 4 4 3	18ECS301J 18ECC312T 18ECC313J 18ECC351T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II	L 2 3 3 0 3 3 3 3	T 0 0 0 0 1 0 0 0 0 0	P 2 0 0 0 0 0 0 0	3 3 4 1 3 3
18MAB302T 18ECC202J 18ECC311J 18CSC203J 18ECP101L 18ECP102L 18ECP103L	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Massive Open Online Course - I Industrial Training-I Seminar - I	L 3 3 3 3 3 3	T 1 0 0 0 0 0	P 0 2 2 2 2 0 0	4 4 4 3 3 3	18ECS301J 18ECC312T 18ECC313J 18ECC351T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II Industrial Training-II	L 2 3 3 0 3 3 3	T 0 0 0 1 1 0 0 0	P 2 0 2 0 0 0 0	3 4 1 3 3
18MAB302T 18ECC202J 18ECC311J 18CSC203J 18ECP101L 18ECP102L 18ECP103L 18PDM301L	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Massive Open Online Course - I Industrial Training-I Seminar - I Analytical and Logical Thinking Skills	L 3 3 3 3 3 3	T 1 0 0 0 0	P 0 2 2 2 2 0 0	4 4 4 3 3 3	18ECC313J 18ECC313J 18ECC351T 18ECP104L 18ECP105L 18ECP106L	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II Industrial Training-II Seminar - II	L 2 3 0 3 3 3 3 0	T 0 0 0 0 1 0 0 0 0 0 0 0	P 2 0 0 0 0 0 0 2	3 3 4 1 3 3 3
18MAB302T 18ECC202J 18ECC311J 18CSC203J 18ECP101L 18ECP102L 18ECP103L 18PDM301L 18PDM302L	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Massive Open Online Course - I Industrial Training-I Seminar - I Analytical and Logical Thinking Skills Entrepreneurship Management	3 3 3 3 3 0	T 1 0 0 0 0 0	P 0 2 2 2 0 0 0 2 2 2	4 4 4 3 3 3 1	18ECS301J 18ECC312T 18ECC313J 18ECC351T 18ECC9104L 18ECP105L 18ECP106L 18PDH201T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II Industrial Training-II Seminar - II Employability Skills and Practices	2 3 3 0 3 3 3 0 0	T 0 0 0 0 0 0 0 0 0 0 0	P 2 0 0 0 0 0 0 2 2 2	33 44 11 33 33 31 11
18MAB302T 18ECC202J 18ECC311J 18CSC203J 18ECP101L 18ECP102L 18ECP103L 18PDM301L 18PDM302L	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Massive Open Online Course - I Industrial Training-I Seminar - I Analytical and Logical Thinking Skills Entrepreneurship Management Indian Art Form	3 3 3 3 3 0 0	T 1 0 0 0 0 0	P 0 2 2 2 2 0 0	4 4 4 3 3 3	18ECS301J 18ECC312T 18ECC313J 18ECC351T 18ECC9104L 18ECP105L 18ECP106L 18PDH201T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II Industrial Training-II Seminar - II Employability Skills and Practices Indian Traditional Knowledge	L 2 3 0 3 3 3 3 0	T 0 0 0 0 1 0 0 0 0 0 0 0	P 2 0 0 0 0 0 0 2	3 3 4 1 3 3 3 1
18MAB302T 18ECC202J 18ECC311J 18CSC203J 18ECP101L 18ECP102L 18ECP103L 18PDM301L 18PDM302L	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Massive Open Online Course - I Industrial Training-I Seminar - I Analytical and Logical Thinking Skills Entrepreneurship Management	3 3 3 3 3 0 0	T 1 0 0 0 0 0	P 0 2 2 2 0 0 0 2 2 2	4 4 4 4 3 3 1 0	18ECS301J 18ECC312T 18ECC313J 18ECC351T 18ECC9104L 18ECP105L 18ECP106L 18PDH201T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II Industrial Training-II Seminar - II Employability Skills and Practices	2 3 3 0 3 3 3 0 0	T 0 0 0 0 0 0 0 0 0 0 0	P 2 0 0 0 0 0 0 2 2 2	3 3 4 1 3 3
18MAB302T 18ECC202J 18ECC311J 18CSC203J 18ECP101L 18ECP102L 18ECP103L 18PDM301L 18PDM302L	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Massive Open Online Course - I Industrial Training-I Seminar - I Analytical and Logical Thinking Skills Entrepreneurship Management Indian Art Form	3 3 3 3 3 0 0	T 1 0 0 0 0 0	P 0 2 2 2 0 0 0 2 2 2	4 4 4 4 3 3 1 0	18ECS301J 18ECC312T 18ECC313J 18ECC351T 18ECC9104L 18ECP105L 18ECP106L 18PDH201T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II Industrial Training-II Seminar - II Employability Skills and Practices Indian Traditional Knowledge	2 3 3 0 3 3 3 0 0	T 0 0 0 0 0 0 0 0 0 0 0	P 2 0 0 0 0 0 0 2 2 2	33 44 11 33 33 31 11
18MAB302T 18ECC202J 18ECC311J 18CSC203J 18ECP101L 18ECP102L 18ECP103L 18PDM301L 18PDM302L 18LEM110L	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Massive Open Online Course - I Industrial Training-I Seminar - I Analytical and Logical Thinking Skills Entrepreneurship Management Indian Art Form Total Learning Credits	L 3 3 3 3 3 3 0 0 0	T 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 0 2 2 2 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2	4 4 4 4 3 3 1 0 0 23	18ECS301J 18ECC312T 18ECC313J 18ECC351T 18ECP104L 18ECP105L 18ECP106L 18PDH201T 18LEM109T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II Industrial Training-II Seminar - II Employability Skills and Practices Indian Traditional Knowledge Total Learning Credits Semester - VIII	L 2 3 3 0 3 3 3 0 0 1	T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 2 0 0 0 0 0 0 0 2 2 0 0 0 0 0 0 0 0 0	3 3 4 1 3 3 3 3 1 1 0 22
18MAB302T 18ECC202J 18ECC311J 18CSC203J 18ECP101L 18ECP102L 18ECP103L 18PDM301L 18PDM301L 18LEM110L	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Massive Open Online Course - I Industrial Training-I Seminar - I Analytical and Logical Thinking Skills Entrepreneurship Management Indian Art Form Total Learning Credits Semester - VII Course Title	L 3 3 3 3 3 3 0 0 0 0 L	T 1 0 0 0 0 0 0 0 0 0 0 0 0 Trs/W	P 0 2 2 2 0 0 0 2 2 2 2 2 P P P P P P P	4 4 4 4 3 3 1 0 0 23	18ECS301J 18ECC312T 18ECC313J 18ECC351T 18ECP104L 18ECP105L 18ECP106L 18PDH201T 18LEM109T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II Industrial Training-II Seminar - II Employability Skills and Practices Indian Traditional Knowledge Total Learning Credits Semester - VIII Course Title	L 2 3 3 0 3 3 3 0 0 1	0 0 0 0 0 0 0 0 0 0	P 2 0 0 0 0 0 0 2 2 0 0 0 0 0 0 0 0 0 0	3 3 4 1 3 3 3 3 1 1 0 22
18MAB302T 18ECC202J 18ECC31J 18CSC203J 18ECP101L 18ECP102L 18ECP103L 18PDM301L 18PDM301L 18LEM110L Code	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Massive Open Online Course - I Industrial Training-I Seminar - I Analytical and Logical Thinking Skills Entrepreneurship Management Indian Art Form Total Learning Credits Semester - VII Course Title Database Management Systems	L 3 3 3 3 3 3 0 0 0 0 0 L 3 3	0 0 0 0 0 0 0 0 0 0 0 0 0	P 0 2 2 2 0 0 0 2 2 2 2 2 Veek P 2 2	4 4 4 4 4 3 3 1 0 0 23	18ECS301J 18ECC312T 18ECC313J 18ECC351T 18ECP104L 18ECP105L 18ECP106L 18PDH201T 18LEM109T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II Industrial Training-II Seminar - II Employability Skills and Practices Indian Traditional Knowledge Total Learning Credits Semester - VIII Course Title	L 2 3 3 0 0 3 3 3 0 0 1 1	0 0 0 1 0 0 0 0 0	P 2 0 0 0 0 0 0 2 2 0 0 0 0 0 0 0 0 0 0	3 3 4 1 3 3 3 3 1 1 0 22
18MAB302T 18ECC202J 18ECC311J 18CSC203J 18ECP101L 18ECP102L 18ECP103L 18PDM301L 18PDM301L 18LEM110L Code	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Massive Open Online Course - I Industrial Training-I Seminar - I Analytical and Logical Thinking Skills Entrepreneurship Management Indian Art Form Total Learning Credits Semester - VII Course Title Database Management Systems FPGA based Embedded Systems	L 3 3 3 3 3 0 0 0 0 0 L L 3 3 3	0 0 0 0 0 0 0 0 0 0	P 0 2 2 2 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2	4 4 4 4 3 3 3 1 0 0 23	18ECS301J 18ECC312T 18ECC313J 18ECC351T 18ECP104L 18ECP105L 18ECP106L 18PDH201T 18LEM109T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II Industrial Training-II Seminar - II Employability Skills and Practices Indian Traditional Knowledge Total Learning Credits Semester - VIII Course Title	L 2 3 3 0 3 3 3 0 0 1	0 0 0 1 0 0 0 0 0	P 2 0 0 0 0 0 0 0 2 2 0 0 0 0 0 0 0 0 0	33 44 11 33 33 33 11 11 00 22
18MAB302T 18ECC202J 18ECC311J 18CSC203J 18ECP101L 18ECP103L 18ECP103L 18PDM301L 18PDM302L 18LEM110L Code 18CSC303J 18ECC411J	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Massive Open Online Course - I Industrial Training-I Seminar - I Analytical and Logical Thinking Skills Entrepreneurship Management Indian Art Form Total Learning Credits Semester - VII Course Title Database Management Systems FPGA based Embedded Systems Professional Elective – 5	L 3 3 3 3 3 0 0 0 0 0 0 L L 3 3 3 3 3 3	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 2 2 0 0 2 2 2 2 2 2 2 2 0 0 0	4 4 4 4 3 3 3 1 0 0 23	18ECS301J 18ECC312T 18ECC313J 18ECC351T 18ECP104L 18ECP105L 18ECP106L 18PDH201T 18LEM109T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II Industrial Training-II Seminar - II Employability Skills and Practices Indian Traditional Knowledge Total Learning Credits Semester - VIII Course Title	L 2 3 3 0 0 3 3 3 0 0 1 1	0 0 0 1 0 0 0 0 0	P 2 0 0 0 0 0 0 2 2 0 0 0 0 0 0 0 0 0 0	33 34 11 33 33 31 11 00 22
18MAB302T 18ECC202J 18ECC311J 18CSC203J 18ECP101L 18ECP103L 18ECP103L 18PDM301L 18PDM302L 18LEM110L Code 18CSC303J 18ECC411J	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Massive Open Online Course - I Industrial Training-I Seminar - I Analytical and Logical Thinking Skills Entrepreneurship Management Indian Art Form Total Learning Credits Semester - VII Course Title Database Management Systems Professional Elective – 5 Professional Elective – 6	L 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 0 2 2 2 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2	4 4 4 4 3 3 3 1 0 0 23	18ECS301J 18ECC312T 18ECC313J 18ECC351T 18ECP104L 18ECP105L 18ECP106L 18PDH201T 18LEM109T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II Industrial Training-II Seminar - II Employability Skills and Practices Indian Traditional Knowledge Total Learning Credits Semester - VIII Course Title	L 2 3 3 0 0 3 3 3 0 0 1 1 Hou L	0 0 0 1 0 0 0 0 0	P 2 0 0 0 0 0 0 2 2 0 0 0 0 0 0 0 0 0 0	33 34 11 33 33 33 11 00 22
8MAB302T 18ECC202J 18ECC311J 18CSC203J 18ECP101L 18ECP103L 18ECP103L 18EDM301L 18PDM301L 18LEM110L Code 18CSC303J 18ECC411J	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Massive Open Online Course - I Industrial Training-I Seminar - I Analytical and Logical Thinking Skills Entrepreneurship Management Indian Art Form Total Learning Credits Semester - VII Course Title Database Management Systems Professional Elective – 5 Professional Elective – 5 Professional Elective – 6 Open Elective – 4	L 3 3 3 3 3 0 0 0 0 0 0 L L 3 3 3 3 3 3	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 2 2 0 0 2 2 2 2 2 2 2 2 0 0 0	4 4 4 4 3 3 3 1 0 0 23	18ECS301J 18ECC312T 18ECC313J 18ECC351T 18ECP104L 18ECP105L 18ECP106L 18PDH201T 18LEM109T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II Industrial Training-II Seminar - II Employability Skills and Practices Indian Traditional Knowledge Total Learning Credits Semester - VIII Course Title	L 2 3 3 0 0 3 3 3 0 0 1 1 Hou L	0 0 0 1 0 0 0 0 0	P 2 0 0 0 0 0 0 2 2 0 0 0 0 0 0 0 0 0 0	33 34 11 33 33 33 11 00 22
18MAB302T 18ECC202J 18ECC311J 18CSC203J 18ECP101L 18ECP102L 18ECP103L 18PDM301L 18PDM302L 18LEM110L Code 18CSC303J 18ECC411J	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Open Elective – 2 Industrial Training-I Seminar - I Analytical and Logical Thinking Skills Entrepreneurship Management Indian Art Form Total Learning Credits Semester - VII Course Title Database Management Systems FPGA based Embedded Systems Professional Elective – 5 Professional Elective – 6 Open Elective – 4 Minor Project	L 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 0 2 2 2 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2	4 4 4 4 3 3 3 1 0 0 23	18ECS301J 18ECC312T 18ECC313J 18ECC351T 18ECP104L 18ECP105L 18ECP106L 18PDH201T 18LEM109T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II Industrial Training-II Seminar - II Employability Skills and Practices Indian Traditional Knowledge Total Learning Credits Semester - VIII Course Title Project Semester Internship	L 2 3 3 0 0 3 3 3 0 0 1 1 Hou L 0	0 0 0 1 0 0 0 0 0	P 2 0 0 0 0 0 0 2 2 0 0 0 0 0 0 0 0 0 0	33 34 11 33 33 11 11 00 22 10
18MAB302T 18ECC202J 18ECC31JJ 18CSC203J 18ECP101L 18ECP102L 18ECP103L 18PDM301L 18PDM301L 18LEM110L Code 18CSC303J 18ECC411J	Discrete Mathematics for Engineers Linear Integrated Circuits Microcontrollers and Interfacing Computer Organization and Architecture Professional Elective – 2 Open Elective – 2 Open Elective – 2 Industrial Training-I Seminar - I Analytical and Logical Thinking Skills Entrepreneurship Management Indian Art Form Total Learning Credits Semester - VII Course Title Database Management Systems FPGA based Embedded Systems Professional Elective – 5 Professional Elective – 6 Open Elective – 4 Minor Project	L 3 3 3 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 0 2 2 2 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2	4 4 4 4 4 3 3 1 0 0 23	18ECS301J 18ECC312T 18ECC313J 18ECC351T 18ECP104L 18ECP105L 18ECP106L 18PDH201T 18LEM109T	Applied Programing Hardware Interfacing and Networking Embedded Hardware and Operating systems Comprehension Professional Elective – 3 Professional Elective – 4 Open Elective – 3 Massive Open Online Course - II Industrial Training-II Seminar - II Employability Skills and Practices Indian Traditional Knowledge Total Learning Credits Semester - VIII Course Title	L 2 3 3 0 0 3 3 3 0 0 1 1 Hou L 0	0 0 0 1 0 0 0 0 0	P 2 0 0 0 0 0 0 2 2 0 0 0 0 0 0 0 0 0 0	33 34 11 33 33 31 11 00 22