ACADEMIC CURRICULA

UNDERGRADUATE INTEGRATED POST GRADUATE DEGREE PROGRAMME

(With exit option of Diploma)

(Choice Based Flexible Credit System)

Regulations 2021



SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University u/s 3 of UGC Act, 1956)
Kattankulathur, Chengalpattu District 603203,
Tamil Nadu, India



15. B.Tech.in Computer Science and Engineering

15. (a) Mission of the Department

	To impart knowledge in cutting edge Computer Science and Engineering technologies in par with industrial standards.
Mission Stmt – 2	To collaborate with renowned academic institutions to uplift innovative research and development in Computer Science and Engineering and its allied fields to serve the needs of society
Mission Stmt – 3	To demonstrate strong communication skills and possess the ability to design computing systems individually as well as part of a multidisciplinary teams.
Mission Stmt – 4	To instill societal, safety, cultural, environmental, and ethical responsibilities in all professional activities
Mission Stmt – 5	To produce successful Computer Science and Engineering graduates with personal and professional responsibilities and commitment to lifelong learning

15. (b) Program Educational Objectives (PEO)

PEO - 1	Graduates will be able to perform in technical/managerial roles ranging from design, development, problem solving to production support in software industries and R&D sectors.
PEO – 2	Graduates will be able to successfully pursue higher education in reputed institutions.
PEO – 3	Graduates will have the ability to adapt, contribute and innovate new technologies and systems in the key domains of Computer Science and Engineering.
PEO – 4	Graduates will be ethically and socially responsible solution providers and entrepreneurs in Computer Science and other engineering disciplines.
PEO – 5	Graduates will possess the additional skills in core computer science discipline with knowledge of Hardware, Software, Programming and Logic & Reasoning.

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

	Mission Stmt. – 1	Mission Stmt 2	Mission Stmt. – 3	Mission Stmt. – 4	Mission Stmt. – 5
PEO – 1	3	1.07	خيرانا		1
PEO – 2	r/4 \		2	/ A	
PEO-3		3	3	7 1	V /: /
PEO-4	0,			2	3
PEO - 5				3	/ 6 /

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

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

		٠, ٠			Р	rogram Ou	tcomes (Po	O)		." /		
	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
PEO – 1	3			1		2		3	2	3		
PEO – 2		2	2		3		3	2				
PEO – 3		3	3	2						2		3
PEO – 4		2	3			3	2		2		2	2
PEO – 5						3			3	3	3	3

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

15. (e) Program Structure: B.Tech. in Computer Science and Engineering

	Humanities & Social Sciences						2. Basic Science Courses (B)				
	including Management Courses (H)					Course	Course	Hou	rs/ W	eek	
Course	Course	_	urs/V	_		Code	Title	L	Т	Р	С
Code	Title Communicative English	2 2	T 1	P 0			Semiconductor Physics and Computational Methods	3	1	2	5
21LEH102T			1	0	3	21CYB101J		3	1	2	5
21LEH103T		1					Calculus and Linear Algebra	3	1	0	4
21LEH104T		2	1	0	3		Advanced Calculus and Complex Analysis	3	1	0	4
21LEH105T			'	0	3		Transforms and Boundary Value Problems	3	1	0	4
21LEH106T		4					Probability and Queueing Theory	3	1	0	4
21LEH107T	Spanisn Philosophy of Engineering	1	0	2	2		Discrete Mathematics Introduction to Computational Biology	3	0	0	2
	Social Engineering	2	0			ZIDIDIUZI	Total Credits		U	U	32
	Behavioral Psychology	2	1				Total Orcalis				UL
	Total Credits				13		4. Professional Core Courses (C)				
	2 Farinarday Sairay Comman (6)					Course	Course		Hours Weel		
Course	3. Engineering Science Courses (S) Course	Hou	urs/ V	Naal	k	Code	Title	L	Т	Р	С
Code	Title	I	T	_	⊣		Object Oriented Design and Programming	2	1	0	3
	Basic Civil and Mechanical Workshop	0	0				Data Structures and Algorithms	3		2	4
	Engineering Graphics and Design	0	0				Operating Systems	3		2	4
21EES101T	Electrical and Electronics Engineering	3	1				Advanced Programming Practice	3	1	0	4
21CSS101J	Programming for Problem Solving	3	0	2	4		Design and Analysis of Algorithms	3		2	4
	Computer Organization and Architecture	3	1	0			Database Management Systems	3	1	0	4
	Design Thinking and Methodology	1	0	4			Artificial Intelligence Formal Language and Automata	3	0	0	3
21CSS303T	Data Science	2	0	0			Computer Networks	3		2	4
	Total Credits	į		+	21	21CSC303J	Software Engineering and Project Management	2	0	2	3
		نب		ř	1.5-	21CSC304J	Compiler Design	2	0	2	3
	5. Professional Elective Courses (E)					21CSC305P	Machine Learning	2	1	0	3
	(Any 8 Elective Courses)	,	1	/			Total Credits	5			42
Course	Course		lour Wee								
Code	Title	L	T	_	C		3. Open Elective Courses (O)				
	Digital Image Processing	2	1	0		Cauras	(Any 3 courses)	11	/ \ \ \		
21CSE252T	Biometrics	2	1	0	3	Course	Course	Hou	rs/ W	_	_
	Internet of Things	2	1	0		Code	Title	2	1	-	<u>C</u>
	Bio Inspired Computing	2	1	0			Web Programming	2	1	_	3
	Computer Graphics and Animation	2	1	0			Python Programming Mobile Application Development	2	1	_	3
	Computational Logic Neuro Fuzzy and Genetic Programming	2	1	0			Data Analytics	2	1	_	3
	Augmented, Virtual and Mixed Reality	2	1	0		210000041	Total Credits	_	1	U	9
	Full Stack Web Development	2	1	0		-	Total Credits				3
21CSE355T	Data Mining and Analytics	2	1	0			7. Project Work, Seminar, Internship In				
21CSE356T	Natural Language Processing	2	1	0			Industry / Higher Technical Institutions (P)				
	Distributed Computing	2	1	0		Course	Course		rs/ W	eek	
	N (10 '' 0 (1) 1					Course		Hou	,	Р	С
21CSE250T	Network Security Cryptography and	2	1	0		Code	Title	L	Т	-	
	Information Storage and Management	2	1	0	3	Code 21GNP301L	Title Community Connect	L 0	T 0	2	1
21CSE360T	Information Storage and Management High Performance Computing	2	1	0	3	Code 21GNP301L 21CSP302L	Title Community Connect Project	0 0	T 0	2	1
21CSE360T 21CSE361T	Information Storage and Management	2	1	0	3 3	Code 21GNP301L 21CSP302L 21CSP303T	Title Community Connect Project MOOC	L 0	T 0	2	
21CSE360T 21CSE361T 21CSE362T	Information Storage and Management High Performance Computing Database Security and Privacy	2 2 2	1 1 1 1 1	0 0 0 0	3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L	Title Community Connect Project MOOC Major Project	0 0	T 0 0	2	1
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web	2 2 2 2 2 2	1 1 1 1 1 1	0 0 0 0	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T	Title Community Connect Project MOOC Major Project Internship	0 0 3	T 0 0	2 6 0	1 3 15
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE452T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition	2 2 2 2 2 2 2 2	1 1 1 1 1 1 1	0 0 0 0 0	3 0 3 0 3 0 3 0 3 0 3 0 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L	Title Community Connect Project MOOC Major Project Internship Total Credits	0 0 3	T 0 0	2 6 0	3
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE452T 21CSE453T 21CSE454T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision	2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1	0 0 0 0 0 0	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L 21CSP402L	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M)	0 0 3	T 0 0	2 6 0 30	1 3 15 19
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE453T 21CSE453T 21CSE455T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision Social Network Analysis	2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1	0 0 0 0 0 0 0	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L 21CSP402L Code	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M) Course Title	0 0 3 0	T 0 0 0 0 0 0	2 6 0 30	1 3 15 19
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE453T 21CSE454T 21CSE455T 21CSE456T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision Social Network Analysis Software Defined Networks	2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L 21CSP402L Code 21PDM10	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M) Course Title 1L Professional Skills and Practices	0 0 3 0	T 0 0 0 0 0 0 T T 0 0	2 6 0 30 P 2	1 3 15 19
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE453T 21CSE454T 21CSE455T 21CSE456T 21CSE457T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision Social Network Analysis Software Defined Networks Service Oriented Architecture	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1 1		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L 21CSP402L Code 21PDM10 21PDM10	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M) Course Title 1L Professional Skills and Practices 2L General Aptitude	0 0 3 0	T 0 0 0 0 0 T 0 0 0 0 0 0 0 0 0 0 0 0 0	2 6 0 30 P 2 2	1 3 15 19 C 0
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE452T 21CSE453T 21CSE455T 21CSE456T 21CSE456T 21CSE458T 21CSE458T 21CSE458T 21CSE458T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision Social Network Analysis Software Defined Networks Service Oriented Architecture Wireless and Mobile Communication Wireless Sensor Networks	2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L 21CSP402L Code 21PDM10 21PDM10 21PDM20	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M) Course Title 1L Professional Skills and Practices 2L General Aptitude 1L Verbal Reasoning	L 0 0 0 0 0 0 0 0	T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 6 0 30 P 2 2	1 3 15 19 C 0 0
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE452T 21CSE453T 21CSE455T 21CSE456T 21CSE456T 21CSE458T 21CSE458T 21CSE458T 21CSE458T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision Social Network Analysis Software Defined Networks Service Oriented Architecture Wireless and Mobile Communication Wireless Sensor Networks Network Protocols and Algorithms	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1 1 1 1 1		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L 21CSP402L Code 21PDM10 21PDM10	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M) Course Title 1L Professional Skills and Practices 2L General Aptitude 1L Verbal Reasoning 2L Critical and Creative Thinking Skills	0 0 3 0	T 0 0 0 0 0 0 0 0 0 0 0 0	2 6 0 330 P 2 2 2 2 2 2 2	1 3 15 19 C 0 0 0
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE452T 21CSE453T 21CSE455T 21CSE456T 21CSE456T 21CSE458T 21CSE458T 21CSE458T 21CSE458T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision Social Network Analysis Software Defined Networks Service Oriented Architecture Wireless and Mobile Communication Wireless Sensor Networks	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L 21CSP402L Code 21PDM10 21PDM20 21PDM20 21PDM30 21PDM30	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M) Course Title 1L Professional Skills and Practices 2L General Aptitude 1L Verbal Reasoning 2L Critical and Creative Thinking Skills 1L Analytical and Logical Thinking Skills 2L Employability Skills and Practices	L 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 6 0 330 PP 2 2 2 2 2 2 2 2 2	1 3 15 19 0 0 0 0 0
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE452T 21CSE453T 21CSE455T 21CSE456T 21CSE456T 21CSE458T 21CSE458T 21CSE458T 21CSE458T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision Social Network Analysis Software Defined Networks Service Oriented Architecture Wireless and Mobile Communication Wireless Sensor Networks Network Protocols and Algorithms	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L 21CSP402L Code 21PDM10 21PDM20 21PDM20 21PDM30 21PDM30 21PDM30 21PCM30 21CSP402L	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M) Course Title 1L Professional Skills and Practices 2L General Aptitude 1L Verbal Reasoning 2L Critical and Creative Thinking Skills 1L Analytical and Logical Thinking Skills 2L Employability Skills and Practices 1T Environmental Science	L 0 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 6 0 330 P 2 2 2 2 2 2 0 0	1 3 15 19 C 0 0 0 0 0 0 0
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE452T 21CSE453T 21CSE455T 21CSE456T 21CSE456T 21CSE458T 21CSE458T 21CSE458T 21CSE458T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision Social Network Analysis Software Defined Networks Service Oriented Architecture Wireless and Mobile Communication Wireless Sensor Networks Network Protocols and Algorithms	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L 21CSP402L Code 21PDM10 21PDM20 21PDM20 21PDM30 21PDM30 21PDM30 21CYM10 21LEM10	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M) Course Title 1L Professional Skills and Practices 2L General Aptitude 1L Verbal Reasoning 2L Critical and Creative Thinking Skills 1L Analytical and Logical Thinking Skills 2L Employability Skills and Practices 1T Environmental Science 1T Constitution of India	L 0 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 6 0 30 P 2 2 2 2 2 2 2 0 0	1 3 15 19 0 0 0 0 0 0 0 0
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE452T 21CSE453T 21CSE455T 21CSE456T 21CSE456T 21CSE458T 21CSE458T 21CSE458T 21CSE458T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision Social Network Analysis Software Defined Networks Service Oriented Architecture Wireless and Mobile Communication Wireless Sensor Networks Network Protocols and Algorithms	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP303T 21CSP401L 21CSP402L Code 21PDM10 21PDM20 21PDM20 21PDM30 21PDM30 21PDM30 21CYM10 21LEM10 21LEM10 21LEM20	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M) Course Title 1L Professional Skills and Practices 2L General Aptitude 1L Verbal Reasoning 2L Critical and Creative Thinking Skills 1L Analytical and Logical Thinking Skills 2L Employability Skills and Practices 1T Environmental Science 1T Constitution of India 1T Professional Ethics	L 0 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1	T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 6 0 30 P 2 2 2 2 2 2 2 0 0	1 3 15 19 0 0 0 0 0 0 0 0 0 0 0
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE452T 21CSE453T 21CSE455T 21CSE456T 21CSE456T 21CSE458T 21CSE458T 21CSE458T 21CSE458T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision Social Network Analysis Software Defined Networks Service Oriented Architecture Wireless and Mobile Communication Wireless Sensor Networks Network Protocols and Algorithms	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302T 21CSP401L 21CSP401L 21CSP402L Code 21PDM10 21PDM20 21PDM20 21PDM30 21PDM30 21PDM30 21PLEM10 21LEM10 21LEM20	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M) Course Title 1L Professional Skills and Practices 2L General Aptitude 1L Verbal Reasoning 2L Critical and Creative Thinking Skills 1L Analytical and Logical Thinking Skills 2L Employability Skills and Practices 1T Environmental Science 1T Constitution of India 1T Professional Ethics 2T Universal Human Values	L 0 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 6 0 330 2 2 2 2 2 2 2 2 2 2 0 0 0	1 3 15 19 0 0 0 0 0 0 0 0 0 0 0
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE452T 21CSE453T 21CSE455T 21CSE456T 21CSE456T 21CSE458T 21CSE458T 21CSE458T 21CSE458T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision Social Network Analysis Software Defined Networks Service Oriented Architecture Wireless and Mobile Communication Wireless Sensor Networks Network Protocols and Algorithms	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L 21CSP402L Code 21PDM10 21PDM20 21PDM20 21PDM30 21PDM30 21CYM10 21LEM20 21LEM20 21LEM30	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M) Course Title 1L Professional Skills and Practices 2L General Aptitude 1L Verbal Reasoning 2L Critical and Creative Thinking Skills 1L Analytical and Logical Thinking Skills 1L Employability Skills and Practices 1T Environmental Science 1T Constitution of India 1T Professional Ethics 2T Universal Human Values 1T Indian Art Form	L 0 0 3 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1	T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 6 0 30 2 2 2 2 2 2 2 2 2 2 0 0 0 0	1 3 15 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE452T 21CSE453T 21CSE455T 21CSE456T 21CSE456T 21CSE458T 21CSE458T 21CSE458T 21CSE458T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision Social Network Analysis Software Defined Networks Service Oriented Architecture Wireless and Mobile Communication Wireless Sensor Networks Network Protocols and Algorithms	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L 21CSP402L Code 21PDM10 21PDM20 21PDM20 21PDM30 21PDM30 21LEM10 21LEM20 21LEM30 21LEM30 21LEM30	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M) Course Title 1L Professional Skills and Practices 2L General Aptitude 1L Verbal Reasoning 2L Critical and Creative Thinking Skills 1L Analytical and Logical Thinking Skills 2L Employability Skills and Practices 1T Environmental Science 1T Constitution of India 1T Professional Ethics 2T Universal Human Values 1T Indian Art Form 2T Indian Traditional Knowledge	L 0 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 6 0 330 2 2 2 2 2 2 2 2 2 2 0 0 0	1 3 15 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE452T 21CSE453T 21CSE455T 21CSE456T 21CSE456T 21CSE458T 21CSE458T 21CSE458T 21CSE458T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision Social Network Analysis Software Defined Networks Service Oriented Architecture Wireless and Mobile Communication Wireless Sensor Networks Network Protocols and Algorithms	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L 21CSP402L Code 21PDM10 21PDM20 21PDM20 21PDM30 21PDM30 21PCM30 21LEM400 21LEM20 21LEM20 21LEM300 21LEM300 21GNM10	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M) Course Title 1L Professional Skills and Practices 2L General Aptitude 1L Verbal Reasoning 2L Critical and Creative Thinking Skills 1L Analytical and Logical Thinking Skills 2L Employability Skills and Practices 1T Environmental Science 1T Constitution of India 1T Professional Ethics 2T Universal Human Values 1T Indian Art Form 2T Indian Traditional Knowledge 1L Physical and Mental Health using Yoga	L 0 0 3 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1	T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 6 0 30 30 P 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0	1 3 15 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
21CSE360T 21CSE361T 21CSE362T 21CSE451T 21CSE452T 21CSE453T 21CSE455T 21CSE456T 21CSE456T 21CSE456T 21CSE458T 21CSE458T 21CSE458T 21CSE458T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision Social Network Analysis Software Defined Networks Service Oriented Architecture Wireless and Mobile Communication Wireless Sensor Networks Network Protocols and Algorithms	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L 21CSP402L Code 21PDM10 21PDM20 21PDM20 21PDM30 21PDM30 21PDM30 21LEM40 21LEM20 21LEM30 21LEM30 21GNM10 21GNM10	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M) Course Title 1L Professional Skills and Practices 2L General Aptitude 1L Verbal Reasoning 2L Critical and Creative Thinking Skills 1L Analytical and Logical Thinking Skills 2L Employability Skills and Practices 1T Environmental Science 1T Constitution of India 1T Professional Ethics 2T Universal Human Values 1T Indian Art Form 2T Indian Traditional Knowledge 1L Physical and Mental Health using Yoga 2L NSS	L 0 0 3 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1	T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 6 0 30 2 2 2 2 2 2 2 2 2 2 0 0 0 0	1 3 15 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
21CSE360T 21CSE361T 21CSE362T 21CSE452T 21CSE452T 21CSE453T 21CSE455T 21CSE456T 21CSE456T 21CSE458T 21CSE458T 21CSE458T	Information Storage and Management High Performance Computing Database Security and Privacy Cloud Computing Pattern Recognition Techniques Semantic Web Speech Recognition Computer Vision Social Network Analysis Software Defined Networks Service Oriented Architecture Wireless and Mobile Communication Wireless Sensor Networks Network Protocols and Algorithms	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Code 21GNP301L 21CSP302L 21CSP303T 21CSP401L 21CSP402L Code 21PDM10 21PDM20 21PDM20 21PDM30 21PDM30 21PDM30 21LEM400 21LEM20 21LEM20 21LEM300 21LEM300 21GNM10	Title Community Connect Project MOOC Major Project Internship Total Credits Mandatory Courses (M) Course Title 1L Professional Skills and Practices 2L General Aptitude 1L Verbal Reasoning 2L Critical and Creative Thinking Skills 1L Analytical and Logical Thinking Skills 2L Employability Skills and Practices 1T Environmental Science 1T Constitution of India 1T Professional Ethics 2T Universal Human Values 1T Indian Art Form 1Indian Traditional Knowledge 1L Physical and Mental Health using Yoga 1L NSS 3L NCC	L 0 0 3 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1	T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 6 0 30 30 P 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0	1 3 15 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

15. (f) Implementation Plan: B.Tech. in Computer Science and Engineering

	Semester – I						Semester – II				
		ŀ	Hour	s/					Hour		
Code	Course Title		Wee		С	Code	Course Title	L	Wee	k P	С
21LEH102T	Chinese	Ť	Ė	Ė		21LEH101T		2	1	0	3
21LEH103T	French	١,				21MAB102T		3	1	0	4
21LEH104T		+				21PYB102J	Semiconductor Physics and Computational	3	1	2	5
21LEH105T		_ 2	1	0	3	21MES102L	Methods Engineering Graphics and Design	0	0	4	2
21LEH 1031	-	+				21EES101T		3	1	0	4
21LEH1001		+				21CSC101T	0 0	2		0	3
	Philosophy of Engineering	1	0	2	2	21CYM101T		1	0	0	0
	, , , ,			_		21PDM102L		0	0	2	0
	Calculus and Linear Algebra	3	1	0	4	21LEM101T		1	0	0	0
21CYB101J		3	1	2	5		Total Credits	3			21
21BTB102T	Introduction to Computational Biology	2	0	0	2						
21CSS101J	Programming for Problem Solving	3	0	2	4						
21MES101L	Basic Civil and Mechanical Workshop	0	0	4	2						
21PDM101L	Professional Skills and Practices	0	0	2	0	Missing					
	Physical and Mental Health using Yoga	Ť	Ť	H	-	N 1					
		+				1 4 4 1					
21GNM102L		- 0	0	2	0		14/1/2				
21GNM103L	NCC										
21GNM104L	NSO						EANO.				
	Total Credit	3			22	of the same				k.	
	Semester – III			1	2		Semester – IV				
Code	Course Title	Hou	urs/V	Veek P	С	Code	Course Title	Hou	irs/ W	/eek	С
21MAR201T	Transforms and Boundary Value Problems	3	1	0	4	21MAR204T	Probability and Queueing Theory	3	1	0	4
	Design Thinking and Methodology	1	0	4	3		Design and Analysis of Algorithms	3	0	2	4
	Computer Organization and Architecture	3	1	0	4		Database Management Systems	3	1	0	4
	Data Structures and Algorithms	3	0	2	4		Artificial Intelligence	2	1	0	3
	Operating Systems	3	0	2	4		Professional Elective-I				3
	Advanced Programming Practice	3	1	0	4		Social Engineering	2	0	0	2
	Professional Ethics	1	0	0	0		Critical and Creative Thinking Skills	0	0	2	0
ZIPDMZUIL	Verbal Reasoning Total Credit:		0	2	<i>0</i> 23	ZILEMIZUZI	Universal Human Values Total Credits	I	U	0	0 20
	Semester – V	_				A 4	Semester – VI	_	_		
	Semester – v	Ног	urs/ V	Vook			Semester – vi	Т 1	Hours	e/	Г
Code	Course Title	I	T	P	С	Code	Course Title		Wee		С
21MAB302T						0000				Р	_
LIIIII IDOOLI	Discrete Mathematics	3	1	0	4	III I		L	Т	1	
21CSC301T	Discrete Mathematics Formal Language and Automata	3	1	0	4	21CSS303T D			0	0	2
21CSC302J	Formal Language and Automata Computer Networks	3 3	0 0	0 0 2	4 3 4	21CSC303J S	Software Engineering and Project Management	2 2	0	0 2	3
21CSC302J 21CSC305P	Formal Language and Automata Computer Networks Machine Learning	3	0	0	3 4 3	21CSC303J S 21CSC304J C	Software Engineering and Project Management Compiler Design	L 2	0	0	3
21CSC302J 21CSC305P E	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II	3	0	0	3 4 3 3	21CSC303J S 21CSC304J C E F	Software Engineering and Project Management Compiler Design Professional Elective – III	2 2	0	0 2	3 3
21CSC302J 21CSC305P E O	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II Open Elective – I	3 3 2	0 0 1	0 2 0	3 4 3 3 3	21CSC303J S 21CSC304J C E F	Software Engineering and Project Management Compiler Design Professional Elective – III Professional Elective – IV	2 2	0	0 2	3 3 3 3
21CSC302J 21CSC305P E O 21GNP301L	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II Open Elective – I Community Connect	3 3 2 2 0	0 0 1	0 2 0	3 4 3 3 3 1	21CSC303J S 21CSC304J C E F E F	Software Engineering and Project Management Compiler Design Professional Elective – III Professional Elective – IV Open Elective – II	L 2 2 2	0 0 0	0 2 2	3 3 3 3
21CSC302J 21CSC305P E O 21GNP301L 21PDM301L	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II Open Elective – I Community Connect Analytical and Logical Thinking Skills	3 3 2 0 0	0 0 1 1 0 0 0	0 2 0	3 4 3 3 3 1 0	21CSC303J S 21CSC304J C E F E F O C 21CSP302L F	Software Engineering and Project Management Compiler Design Professional Elective – III Professional Elective – IV Open Elective – II Project	2 2 2 2	0 0 0	0 2 2 2 6	3 3 3 3
21CSC302J 21CSC305P E O 21GNP301L 21PDM301L	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II Open Elective – I Community Connect Analytical and Logical Thinking Skills Indian Art Form	3 3 2 0 0 1	0 0 1	0 2 0	3 4 3 3 1 0	21CSC303J S 21CSC304J C E F E F O C 21CSP302L F 21CSP303T M	Software Engineering and Project Management Compiler Design Professional Elective – III Professional Elective – IV Depen Elective – II Project MOOC	L 2 2 2 2 0 0 3	0 0 0	0 2 2 2 6 6 0	3 3 3 3 3
21CSC302J 21CSC305P E O 21GNP301L 21PDM301L	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II Open Elective – I Community Connect Analytical and Logical Thinking Skills	3 3 2 0 0 1	0 0 1 1 0 0 0	0 2 0	3 4 3 3 3 1 0	21CSC303J S 21CSC304J C E F O C 21CSP302L F 21CSP303T M 21PDM302L E	Software Engineering and Project Management Compiler Design Professional Elective – III Professional Elective – IV Open Elective – II Project	L 2 2 2 2 0 0 3	0 0 0	0 2 2 2 6 0 2	3 3 3 3 3
21CSC302J 21CSC305P E O 21GNP301L 21PDM301L	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II Open Elective – I Community Connect Analytical and Logical Thinking Skills Indian Art Form	3 3 2 0 0 1	0 0 1 1 0 0 0	0 2 0	3 4 3 3 1 0	21CSC303J S 21CSC304J C E F O C 21CSP302L F 21CSP303T M 21PDM302L E	Software Engineering and Project Management Compiler Design Professional Elective – III Professional Elective – IV Open Elective – II Project MOOC Employability Skills and Practices	L 2 2 2 2 0 0 3 0 1	0 0 0 0 0 0	0 2 2 2 6 0 2	3 3 3 3 3 0
21CSC302J 21CSC305P E O 21GNP301L 21PDM301L	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II Open Elective – I Community Connect Analytical and Logical Thinking Skills Indian Art Form	3 3 2 0 0 1	0 0 1 1 0 0 0	0 2 0	3 4 3 3 1 0	21CSC303J S 21CSC304J C E F O C 21CSP302L F 21CSP303T M 21PDM302L E	Software Engineering and Project Management Compiler Design Professional Elective – III Professional Elective – IV Open Elective – II Project MOOC Employability Skills and Practices Indian Traditional Knowledge	L 2 2 2 2 0 0 3 0 1	0 0 0 0 0 0	0 2 2 2 6 0 2	3 3 3 3 3 0 0
21CSC302J 21CSC305P E O 21GNP301L 21PDM301L	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II Open Elective – I Community Connect Analytical and Logical Thinking Skills Indian Art Form	3 3 2 2 0 0 0 1 1 1 5 5	0 0 1 1 0 0 0 0	0 2 0 2 2 2 2 0	3 4 3 3 1 0	21CSC303J S 21CSC304J C E F O C 21CSP302L F 21CSP303T M 21PDM302L E	Software Engineering and Project Management Compiler Design Professional Elective – III Professional Elective – IV Open Elective – II Project MOOC Employability Skills and Practices Indian Traditional Knowledge	L 2 2 2 2 3 3 0 1 1 5 5	0 0 0 0 0 0	0 2 2 2 6 0 2	3 3 3 3 3 0 0
21CSC302J 21CSC305P E O 21GNP301L 21PDM301L	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II Open Elective – I Community Connect Analytical and Logical Thinking Skills Indian Art Form Total Credit: Semester – VII Course Title	3 3 2 0 0 0 1 1 S	0 0 1 1 0 0 0	0 2 0 2 2 2 2 0	3 4 3 3 1 0	21CSC303J S 21CSC304J C E F O C 21CSP302L F 21CSP302L F 21CSP302T II 21PDM302L E 21LEM302T II	Software Engineering and Project Management Compiler Design Professional Elective – III Professional Elective – IV Open Elective – II Project MOOC Employability Skills and Practices Indian Traditional Knowledge Total Credits Semester – VIII Course Title	L 2 2 2 2 3 3 0 1 1 5 5	0 0 0 0 0 0	0 2 2 2 6 0 2	3 3 3 3 3 0 0
21CSC302J 21CSC305P E O 21GNP301L 21PDM301T 21LEM301T Code	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II Open Elective – I Community Connect Analytical and Logical Thinking Skills Indian Art Form Total Credit: Semester – VII Course Title Behavioral Psychology	3 3 2 0 0 0 1 1 8	0 0 1 1 0 0 0	0 2 0 2 2 2 2 0	3 4 3 3 3 1 0 0 21	21CSC303J S 21CSC304J C E F O C 21CSP302L F 21CSP302T N 21PDM302L E 21LEM302T II	Software Engineering and Project Management Compiler Design Professional Elective – III Professional Elective – IV Open Elective – II Project MOOC Employability Skills and Practices Indian Traditional Knowledge Total Credits Semester – VIII Course Title Major Project	L 2 2 2 2 3 0 1 1 5 1 1 1 1 1 1 1	0 0 0 0 0 0 0	0 2 2 6 0 2 0	3 3 3 3 3 0 0 20
21CSC302J 21CSC305P E O 21GNP301L 21PDM301L 21LEM301T Code 21GNH401T E	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II Open Elective – I Community Connect Analytical and Logical Thinking Skills Indian Art Form Total Credits Semester – VII Course Title Behavioral Psychology Professional Elective – V	3 3 2 0 0 0 1 1 S	0 0 1 0 0 0 0	0 2 0 2 2 2 0	3 4 3 3 3 1 0 0 21	21CSC303J S 21CSC304J C E F O C 21CSP302L F 21CSP302L F 21CSP302T II 21PDM302L E 21LEM302T II	Software Engineering and Project Management Compiler Design Professional Elective – III Professional Elective – IV Open Elective – II Project MOOC Employability Skills and Practices Indian Traditional Knowledge Total Credits Semester – VIII Course Title Major Project	L 2 2 2 2 0 0 3 0 1 1 5 5	0 0 0 0 0 0	0 2 2 2 6 0 2 0	3 3 3 3 3 0 0 20
21CSC302J 21CSC305P E O 21GNP301L 21PDM301L 21LEM301T Code 21GNH401T E E	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II Open Elective – I Community Connect Analytical and Logical Thinking Skills Indian Art Form Total Credits Semester – VII Course Title Behavioral Psychology Professional Elective – V Professional Elective – VI	3 3 2 0 0 0 1 1 S	0 0 1 0 0 0 0	0 2 0 2 2 2 0	3 4 3 3 3 1 0 0 21	21CSC303J S 21CSC304J C E F O C 21CSP302L F 21CSP302T N 21PDM302L E 21LEM302T II	Software Engineering and Project Management Compiler Design Professional Elective – III Professional Elective – IV Open Elective – II Project MOOC Employability Skills and Practices Indian Traditional Knowledge Total Credits Semester – VIII Course Title Major Project	L 2 2 2 2 3 0 1 1 5 1 1 1 1 1 1 1	0 0 0 0 0 0 0	0 2 2 6 0 2 0	3 3 3 3 3 0 0 20
21CSC302J 21CSC305P E O 21GNP301L 21PDM301L 21LEM301T Code 21GNH401T E E E	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II Open Elective – I Community Connect Analytical and Logical Thinking Skills Indian Art Form Total Credit Semester – VII Course Title Behavioral Psychology Professional Elective – V Professional Elective – VI Professional Elective – VII	3 3 2 0 0 0 1 1 S	0 0 1 0 0 0 0	0 2 0 2 2 2 0	3 4 3 3 3 3 1 0 0 0 21	21CSC303J S 21CSC304J C E F O C 21CSP302L F 21CSP302T N 21PDM302L E 21LEM302T II	Software Engineering and Project Management Compiler Design Professional Elective – III Professional Elective – IV Open Elective – II Project MOOC Employability Skills and Practices Indian Traditional Knowledge Total Credits Semester – VIII Course Title Major Project	L 2 2 2 2 3 0 1 1 5 1 1 1 1 1 1 1	0 0 0 0 0 0 0	0 2 2 6 0 2 0	3 3 3 3 3 0 0 20
21CSC302J 21CSC305P E O 21GNP301L 21PDM301T 21LEM301T Code 21GNH401T E E E	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II Open Elective – I Community Connect Analytical and Logical Thinking Skills Indian Art Form Total Credit: Semester – VII Course Title Behavioral Psychology Professional Elective – V Professional Elective – VII Professional Elective – VIII Professional Elective – VIII	3 3 2 0 0 0 1 1 S	0 0 1 0 0 0 0	0 2 0 2 2 2 0	3 4 3 3 3 3 1 0 0 0 21	21CSC303J S 21CSC304J C E F O C 21CSP302L F 21CSP302T N 21PDM302L E 21LEM302T II	Software Engineering and Project Management Compiler Design Professional Elective – III Professional Elective – IV Open Elective – II Project MOOC Employability Skills and Practices Indian Traditional Knowledge Total Credits Semester – VIII Course Title Major Project	L 2 2 2 2 3 0 1 1 5 1 1 1 1 1 1 1	0 0 0 0 0 0 0	0 2 2 6 0 2 0	3 3 3 3 3 0 0 20
21CSC302J 21CSC305P E O 21GNP301L 21PDM301L 21LEM301T Code 21GNH401T E E E	Formal Language and Automata Computer Networks Machine Learning Professional Elective – II Open Elective – I Community Connect Analytical and Logical Thinking Skills Indian Art Form Total Credit Semester – VII Course Title Behavioral Psychology Professional Elective – V Professional Elective – VI Professional Elective – VII	3 3 2 0 0 0 1 1 s	0 0 1 0 0 0 0	0 2 0 2 2 2 0	3 4 3 3 3 3 1 0 0 0 21	21CSC303J S 21CSC304J C E F O C 21CSP302L F 21CSP302T N 21PDM302L E 21LEM302T II	Software Engineering and Project Management Compiler Design Professional Elective – III Professional Elective – IV Open Elective – II Project MOOC Employability Skills and Practices Indian Traditional Knowledge Total Credits Semester – VIII Course Title Major Project	L 2 2 2 2 3 0 1 1 5 1 1 1 1 1 1 1	0 0 0 0 0 0 0	0 2 2 6 0 2 0	3 3 3 3 3 0 0 20