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

17. B.Tech. in Civil Engineering with Computer Applications

17. (a) Mission of the Department

Mission Stmt – 1	To move up through international alliances and collaborative initiatives in civil engineering to achieve global excellence
Mission Stmt – 2	To accomplish a process to advance knowledge in a rigorous research environment related to civil engineering and allied disciplines
Mission Stmt – 3	To attract and build people in a rewarding and inspiring environment by fostering freedom, empowerment, creativity and innovation.

17. (b) Program Educational Objectives (PEO)

PEO – 1	Gradua <mark>tes will pursue hig</mark> her studies in civil engineering, management and other related fields
PEO – 2	Graduates will perform as professional engineers and contribute to civil engineering informatics
PEO – 3	Graduates will perform in diverse fields and gradually move into teamwork and leadership positions.
PEO <mark>– 4</mark>	Graduates will contribute to the development of the profession, nation and society

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

7:/	N	/lission Stmt	-1	Mission Stmt 2	Mission Stmt 3
PEO - 1		3		3	2
PEO - 2		3		2	3
PEO - 3		3	7 7 7	2	3
PEO - 4		3	382	2 1	3

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

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

			250	-	Pro	gram Ou	tcomes (PO)		- 2.	فاعلوا.		Prog	gram Spe	ecific
PEO - 1 PEO - 2 PEO - 3	1	2	3	4	5	6	7	8	9	- 10	11	12	Outo	comes (F	PSO)
	Engineering Knowledge	Problem Analysis	Design/development of solutions	Conduct investigations of complex problems	Modern Tool Usage	The engineer and society	Environment & Sustainability	Ethics	Individual & Team Work	Communication	Project Mgt. & Finance	Life Long Learning	PS0-1	PSO-2	PSO-3
PEO - 1	3	3	3	3	3	1	1	1	1	1	1-	1	3	3	3
PEO - 2	3	3	3	3	3	1	1	1	1	1	1	1	3	3	3
PEO - 3	1	1	1	1	2	2	1	3	3	3	3	3	3	2	3
PEO - 4	1	11	1	1	1	3	3	3	2	2	2	3	3	3	3

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

PSO - Program Specific Outcomes (PSO)

PSO - 1	Graduates apply the knowledge of mathematical and physical sciences to solve problems in various civil engineering domains
PSO - 2	Graduates are capable of handling and applying various software tools for solving problems in various civil engineering fields
PSO - 3	Graduates are capable of working in teams in laboratory and industrial environments to carry out major civil engineering projects

17. (e) Program Structure: B.Tech. in Civil Engineering with Computer Applications

	Humanities & Social Sciences						Basic Science Courses (B)				
	including Management Courses (H)					Course	Course		lours		
Course	Course		ours			Code	Title	L 1	Wee		
Code	Title	_ V	Veel					L	Τ	Р	С
041514045	Communication Familials	L	1	Р	С		Calculus and Linear Algebra	3	1	0	4
21LEH101T	Communicative English	2	1	0	3		Advanced Calculus and Complex	3	1	0	4
21LEH102T 21LEH103T	Chinese French	-					Analysis Chemistry	1	1	2	
21LEH1031 21LEH104T	German						Biology	3	0	0	5
21LEH1041 21LEH105T	Japanese	2	1	0	3		Physics : Mechanics	3	1	2	5
21LEH106T	Korean	- 2	'	0	3		Transforms and Boundary Value		-		5
21LEH107T	Spanish						Problems	3	1	0	4
21LEH108T	Russian						Applied Geology	3	0	2	4
21GNH101J	Philosophy of Engineering	1	0	2	2		Probability and Statistics	3	1	0	4
21PDH209T ¹	Social Engineering	2	0	0	2			otal	Cre	dits	32
21GNH401T	Behavioural Psychology	2	1	0	3						
		otal	Cred	dits			Professional Core Courses (C)				
						Course	Course		lours		
	Engineering Science Courses (S)	Ш	ours	. 1		Code	Title	L.'	Wee		
Course	Course		ours Veel					<u> L</u>	Т	Р	С
Code	Title	ı	T	Р	С	21CEC101T	Building Materials in the Built	3	0	0	3
21MES102L ¹	Engineering Graphics and Design	0	0	4	2		Environment Hydro Mechanics and Hydraulic	L			
	Basic Civil and Mechanical Workshop	0	0	4	2	21CEC201T		3	0	0	3
	Electrical and Electronics Engineering	3	1	0	4		Engineering Fluid Mechanics and Machinery				H
	Programming for Problem Solving	3	0	2	4	21CEC201L 1	Laboratory	0	0	2	1
	Design Thinking and Methodology	1	2	0	3	21CEC202T	Engineering Surveying	3	0	0	3
	Mechanics of Structures	3	0	0	3	21CEC202L 1	Surveying Laboratory	0	0	2	1
	Data Science	2	0	0	2	21CEC203T		3	0	0	3
		otal	Cred	dits			Environmental Engineering Laboratory	0	0	2	1
	J 166			1	Ŧ	21CSC206T	Artificial Intelligence	2	1	0	3
	Non Credit Courses (M)					21CEC204T ²		3	0	0	3
Course	Course						Congrete Technology and Strongth of		Ť		,
Code	Non Credit Courses (M) Durse Course Week Ode Title Week 21CSC 21CSC 21CEC2 21CEC2		21CEC204L ¹	Materials Laboratory	0	0	2	1			
		L	T		С	21CEC205T	Geomechanics	3	0	0	3
	Professional Skills and Practices	0	0	2		21CEC205L 1	Geomechanics Laboratory	0	0	2	1
	General Aptitude	0	0	2		21CEC206T	Irrigation and Water Resources	3	0	0	3
	Verbal Reasoning Critical and Creative Thinking Skills	0	0	2	0	210202001	Engineering	J	U	U	3
	Analytical and Logical Thinking Skills	0	0	2		21CEC207T	Concrete Technology and Special	3	0	0	3
	Employability Skills and Practices	0	0	2			Concrete				
	Environmental Science	1	0	0	0	21CEC301T	Structural Analysis	3	0	0	3
	Constitution of India	1	0	0	0	21CEC301L 1	Computer-Aided Civil Engineering	0	0	2	1
	Universal Human Values – Introduction	1	0	0	0		Laboratory	1	1	_	2
	Professional Ethics	1		0		21CEC302T	Structural Engineering Design-II	2	1	0	3
	Universal Human Values-II:	Ė	Ť	Ť	Ť	21CEC303T	Transportation Engineering Laboratory	0	0	2	3
	Understanding Harmony and Ethical	2	1	0	3	21CEC303L ¹	Canata sation Engineering and		U		1
	Human Conduct					21CEC304T ²	Management	3	0	0	3
21LEM301T 1	Indian Art Form	1	0	0	0			otal	Cre	dits	46
21LEM302T 1	Indian Traditional Knowledge	1	0	0	0			otui	UIC	uito	70
	Physical and Mental Health using Yoga					Project Wor	rk, Seminar, Internship in Industry / Hig	her	Tecl	nnic	al
	National Service Scheme	0	0	2	0		Institutions (P)				
	National Cadet Corps	U	U		U	Course	Course		ours		
21GNM104L 1	National Sports Organization					Code	Title	W	/eek		
	T	otal	Cre	dits	03			L		P	C
						21GNP301L			_	2	1
						21CEP302L		-	_	6	3
						21CEP303T				0	
						21CEP401L	Major Project	-		30	15
						21CEP402L		-		20	10
						21CEP403L		-		10	5
							To	otal	cred	IITS	19
1						1					

	Open Elective Courses (O)						Open Elective Courses (O)				
	(Any 3 Courses)			_							
Course	Course		ours			Course	Course		ours		
Code	Title	-	Vee		_	Code	Title	'	Veel		_
	10.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	ᆫ	T	Р	С	040500007	D: : 1	L	T	Р	С
21CEO301T	Maintenance and Rehabilitation of	3	0	0	3		Principles of Satellite Remote Sensing	3	0	0	3
240502027	Structures	2	0	Λ	2	210E03211	Spatial Information System		0	0	3
	Disaster Resistant Structures	3	0	0	3	21CEO322T	Remote sensing and GIS applications in	3	0	0	3
	Smart City and Infrastructure	3	0	0	3	21CEO323T	Engineering Spatial technology in Engineering	3	0	0	3
	Real Estate Management Project Management	_	0	0			Spatial technology in Engineering	3	0	0	3
	Environmental Impact Assessment	3	0	0	3	21CEO3241 21CEO325T	GIS and Spatial Analysis	3	0	0	3
	Municipal Solid Waste Management	3	0	0	3		Building Materials	3	0	0	3
	Disaster Mitigation and Management	3	0	0	3		Introduction to Environmental Studies	3	0	0	3
	Water Pollution and its Management	3	0	0	3		Integrated Waste Management	3	0	0	3
	Global Warming and Climate Change	3	0	0	3		Principles of Sustainable Development	3	0	0	3
	Indoor and Ambient Air Quality		U				Road Safety and Audit	3	0	0	3
21CEO311T	Management All Quality	3	0	0	3		Transportation Systems	3	0	0	3
21CEO212T	Intelligent Transportation Systems	3	0	0	3		Rheology of Complex materials	3	0	0	3
	Traffic Management Systems	3	0	0	3		Water Conservation and Management	3	0	0	3
	Traffic flow Modeling and Simulation						Water Quantity and Quality	3	0	0	3
21CEO314T	Techniques	3	0	0	3		Remote Sensing Surveying	3	0	0	3
21CFO315T	Viscoelasticity	3	0	0	3		Introduction to GIS and data	3	0	0	3
	Soil Sciences	3	0	0	3		Web and Mobile GIS	3	0	0	3
	Rural Development and Technology	2	0	2	3		Digital Mapping	3	0	0	3
	I tarai Developinent and recimology		_	_	J	210004131					
	Floods and Flood Management	3	Ω	0	3			Total	Cro	dite	na
21CEO318T	Floods and Flood Management Climate Change and Water Resources	3	0	0	3			Total	Cre	dits	09
	Floods and Flood Management Climate Change and Water Resources Management	3	0	0	3		Professional Elective Courses (E)	Total	Cre	dits	09
21CEO318T	Climate Change and Water Resources Management		Ť	Ť							09
21CEO318T	Climate Change and Water Resources Management Professional Elective Courses (E)		Ť	Ť		Course		Н	ours	/	09
21CEO318T	Climate Change and Water Resources Management	3	0	0		Course Code	Professional Elective Courses (E)	Н	ours Veel	<i> </i>	
21CEO318T	Climate Change and Water Resources Management Professional Elective Courses (E)	3 H	0 ours	0			Professional Elective Courses (E) Course Title	Н	ours	/	09
21CEO318T 21CEO319T	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses)	3 H	0 ours Veel	0	3	Code	Professional Elective Courses (E) Course Title Professional Elective - 5	H	ours Veel T	/ (P	С
21CEO318T 21CEO319T Course	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title	3 H	0 ours	0			Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface	Н	ours Veel	<i> </i>	
21CEO318T 21CEO319T Course	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1	3 H	0 ours Veel	0	3	21CEE418J	Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology	H V L	ours Veel T	/ K P	C 3
21CEO318T 21CEO319T Course	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical	3 H	0 ours Veel	0	3	Code	Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water	H	ours Veel T	/ (P	С
21CEO318T 21CEO319T Course Code	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations	3 H \ L	ours Weel T	0 P	3 C	21CEE418J	Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering	H V L	ours Veel T	/ K P	C 3
21CEO318T 21CEO319T Course Code	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations Computer Application in Geotechnical	3 H \ L	ours Veel T	0 	3 C	21CEE418J 21CEE419J	Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering Professional Elective - 6	H V L 2	ours Veek T	/ C P	C 3
21CEO318T 21CEO319T Course Code	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations Computer Application in Geotechnical Engineering	3 H \ L	ours Weel T	0 P	3 C	21CEE418J	Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering Professional Elective - 6 Remote Sensing Application in Civil	H V L	ours Veel T	/ K P	C 3
21CEO318T 21CEO319T Course Code 21CEE313J 21CEE314J	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations Computer Application in Geotechnical Engineering Professional Elective - 2	3 H \ L	ours Veel T	0 P 2	3 3 3	21CEE418J 21CEE419J 21CEE420J	Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering Professional Elective - 6 Remote Sensing Application in Civil Engineering	H V L 2	ours Veek T	/ C P	C 3
21CEO318T 21CEO319T Course Code	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations Computer Application in Geotechnical Engineering Professional Elective - 2 Computer Application in Environmental	3 H \ L	ours Weel T	0 P	3 C	21CEE418J 21CEE419J 21CEE420J	Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering Professional Elective - 6 Remote Sensing Application in Civil	2 2 2	ours Veek T 0	/ C P 2 2 2	3 3
21CEO318T 21CEO319T Course Code 21CEE313J 21CEE314J 21CEE315J	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations Computer Application in Geotechnical Engineering Professional Elective - 2 Computer Application in Environmental Engineering	3 H \ L 2 2	ourse Veel T	0 P 2 2	3 3 3	21CEE418J 21CEE419J 21CEE420J 21CEE421J	Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering Professional Elective - 6 Remote Sensing Application in Civil Engineering GIS Application in Civil Engineering Professional Elective - 7	H V L 2 2 2 2	ours Veek T 0	/ C P 2 2 2 2	3 3 3
21CEO318T 21CEO319T Course Code 21CEE313J 21CEE314J	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations Computer Application in Geotechnical Engineering Professional Elective - 2 Computer Application in Environmental Engineering Computer Application in Environmental Engineering Computer Application in Environmental	3 H \ L	ours Veel T	0 P 2	3 3 3	21CEE418J 21CEE419J 21CEE420J 21CEE421J 21CEE422J	Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering Professional Elective - 6 Remote Sensing Application in Civil Engineering GIS Application in Civil Engineering Professional Elective - 7 Building Information Modeling	H V L 2 2 2 2 2 2 2 2	ours Veek T 0 0	2 2 2	3 3 3 3
21CEO318T 21CEO319T Course Code 21CEE313J 21CEE314J 21CEE315J	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations Computer Application in Geotechnical Engineering Professional Elective - 2 Computer Application in Environmental Engineering Computer Application in Environmental Impact Assessment	3 H \ L 2 2	ourse Veel T	0 P 2 2	3 3 3	21CEE418J 21CEE419J 21CEE420J 21CEE421J 21CEE422J	Course Title Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering Professional Elective - 6 Remote Sensing Application in Civil Engineering GIS Application in Civil Engineering Professional Elective - 7 Building Information Modeling Computer Application in Construction	H V L 2 2 2 2 2 2 2 2	ours Veek T 0 0	2 2 2	3 3 3 3
21CEO318T 21CEO319T Course Code 21CEE313J 21CEE314J 21CEE315J 21CEE316J	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations Computer Application in Geotechnical Engineering Professional Elective - 2 Computer Application in Environmental Engineering Computer Application in Environmental Engineering Computer Application in Environmental Impact Assessment Professional Elective - 3	3 H \ \ L 2 2 2	ours Weel T 0	0 P 2 2 2	3 3 3 3	21CEE418J 21CEE419J 21CEE420J 21CEE421J 21CEE422J	Course Title Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering Professional Elective - 6 Remote Sensing Application in Civil Engineering GIS Application in Civil Engineering Professional Elective - 7 Building Information Modeling Computer Application in Construction Engineering and Management	H V L 2 2 2 2 2 2 2 2	ours Veek T 0 0	2 2 2 2 2	3 3 3 3
21CEO318T 21CEO319T Course Code 21CEE313J 21CEE314J 21CEE315J	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations Computer Application in Geotechnical Engineering Professional Elective - 2 Computer Application in Environmental Engineering Computer Application in Environmental Impact Assessment	3 H \ L 2 2	ourse Veel T	0 P 2 2	3 3 3	21CEE418J 21CEE419J 21CEE420J 21CEE421J 21CEE422J	Course Title Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering Professional Elective - 6 Remote Sensing Application in Civil Engineering GIS Application in Civil Engineering Professional Elective - 7 Building Information Modeling Computer Application in Construction Engineering and Management	H V L 2 2 2 2 2 2 2 2 2	ours Veek T 0 0	2 2 2 2 2	3 3 3 3
21CEO318T 21CEO319T Course Code 21CEE313J 21CEE314J 21CEE316J 21CEE317J	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations Computer Application in Geotechnical Engineering Professional Elective - 2 Computer Application in Environmental Engineering Computer Application in Environmental Impact Assessment Professional Elective - 3 Computer Application in Pavement Design	3 H \ \ L 2 2 2	ours Weel T 0 0	0 P 2 2 2	3 3 3 3	21CEE418J 21CEE419J 21CEE420J 21CEE421J 21CEE422J	Course Title Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering Professional Elective - 6 Remote Sensing Application in Civil Engineering GIS Application in Civil Engineering Professional Elective - 7 Building Information Modeling Computer Application in Construction Engineering and Management	H V L 2 2 2 2 2 2 2 2 2	ours Veek T 0 0	2 2 2 2 2	3 3 3 3
21CEO318T 21CEO319T Course Code 21CEE313J 21CEE314J 21CEE315J 21CEE316J	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations Computer Application in Geotechnical Engineering Professional Elective - 2 Computer Application in Environmental Engineering Computer Application in Environmental Impact Assessment Professional Elective - 3 Computer Application in Pavement	3 H \ \ L 2 2 2	ours Weel T 0	0 P 2 2 2	3 3 3 3	21CEE418J 21CEE419J 21CEE420J 21CEE421J 21CEE422J	Course Title Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering Professional Elective - 6 Remote Sensing Application in Civil Engineering GIS Application in Civil Engineering Professional Elective - 7 Building Information Modeling Computer Application in Construction Engineering and Management	H V L 2 2 2 2 2 2 2 2 2	ours Veek T 0 0	2 2 2 2 2	3 3 3 3
21CEO318T 21CEO319T Course Code 21CEE313J 21CEE314J 21CEE316J 21CEE317J	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations Computer Application in Geotechnical Engineering Professional Elective - 2 Computer Application in Environmental Engineering Computer Application in Environmental Impact Assessment Professional Elective - 3 Computer Application in Pavement Design Computer application in Transportation	3 H \ \ L 2 2 2	ours Weel T 0 0	0 P 2 2 2	3 3 3 3	21CEE418J 21CEE419J 21CEE420J 21CEE421J 21CEE422J	Course Title Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering Professional Elective - 6 Remote Sensing Application in Civil Engineering GIS Application in Civil Engineering Professional Elective - 7 Building Information Modeling Computer Application in Construction Engineering and Management	H V L 2 2 2 2 2 2 2 2 2	ours Veek T 0 0	2 2 2 2 2	3 3 3 3
21CEO318T 21CEO319T Course Code 21CEE313J 21CEE314J 21CEE316J 21CEE317J 21CEE317J	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations Computer Application in Geotechnical Engineering Professional Elective - 2 Computer Application in Environmental Engineering Computer Application in Environmental Impact Assessment Professional Elective - 3 Computer Application in Pavement Design Computer application in Transportation Engineering Professional Elective - 4	3 H L 2 2 2 2	0 0 0 0 0 0 0 0	0 P 2 2 2 2 2	3 3 3 3	21CEE418J 21CEE419J 21CEE420J 21CEE421J 21CEE422J	Course Title Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering Professional Elective - 6 Remote Sensing Application in Civil Engineering GIS Application in Civil Engineering Professional Elective - 7 Building Information Modeling Computer Application in Construction Engineering and Management	H V L 2 2 2 2 2 2 2 2 2	ours Veek T 0 0	2 2 2 2 2	3 3 3 3
21CEO318T 21CEO319T Course Code 21CEE313J 21CEE314J 21CEE316J 21CEE317J	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations Computer Application in Geotechnical Engineering Professional Elective - 2 Computer Application in Environmental Engineering Computer Application in Environmental Impact Assessment Professional Elective - 3 Computer Application in Pavement Design Computer application in Transportation Engineering Professional Elective - 4 Computer Application in Structural	3 H \ \ L 2 2 2	ours Weel T 0 0	0 P 2 2 2	3 3 3 3	21CEE418J 21CEE419J 21CEE420J 21CEE421J 21CEE422J	Course Title Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering Professional Elective - 6 Remote Sensing Application in Civil Engineering GIS Application in Civil Engineering Professional Elective - 7 Building Information Modeling Computer Application in Construction Engineering and Management	H V L 2 2 2 2 2 2 2 2 2	ours Veek T 0 0	2 2 2 2 2	3 3 3 3
21CEO318T 21CEO319T Course Code 21CEE313J 21CEE314J 21CEE316J 21CEE317J 21CEE317J	Climate Change and Water Resources Management Professional Elective Courses (E) (Any 7 Courses) Course Title Professional Elective - 1 Computer Aided Geotechnical Investigations Computer Application in Geotechnical Engineering Professional Elective - 2 Computer Application in Environmental Engineering Computer Application in Environmental Impact Assessment Professional Elective - 3 Computer Application in Pavement Design Computer application in Transportation Engineering Professional Elective - 4	3 H L 2 2 2 2	0 0 0 0 0 0 0 0	0 P 2 2 2 2 2	3 3 3 3	21CEE418J 21CEE419J 21CEE420J 21CEE421J 21CEE422J	Course Title Professional Elective Courses (E) Course Title Professional Elective - 5 Computer Application in Surface Hydrology Computer Application in Water Resources Engineering Professional Elective - 6 Remote Sensing Application in Civil Engineering GIS Application in Civil Engineering Professional Elective - 7 Building Information Modeling Computer Application in Construction Engineering and Management	H V L 2 2 2 2 2 2 2 2 2	ours Veek T 0 0	2 2 2 2 2	3 3 3 3

17. (f) Programme Articulation: B.Tech. in Civil Engineering with Computer Applications

					F	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	ssign/development of	Conduct investigations of complex problems	<mark>Mo</mark> dern Tool Usage	The engineer and society	Environment & Sustainability	Ethics	ndividual & Team Work	Sommunication	Project Mgt. & Finance	ife Long Learning	PSO-1	PSO-2	PSO-3
040550041	A " 10 1		Pr	പ്പ് ഉ	8	ğ	Ė		EŦ	й	ပိ	ď	≛		8,	
	Applied Geology	2.6	•				4	2.6						3		3
	Mechanics of Structures	3	3		3	•	0.5	0						3		
	Building Materials in the Built Environment	3	_			2	2.5	3		=_				3		
	Hydro Mechanics and Hydraulic Engineering	3	3						-	0				3		
	Fluid Mechanics and Machinery Laboratory	3	3							3				3		3
	Engineering Surveying	3	3	44	7.7	3	7	4			-		0	3	0	
	Surveying Laboratory	3	3		_	3	_		4				3	3	3	3
	Environmental Engineering and Design	3	•	3	2		2	3		-				3		_
	Environmental Engineering Laboratory	3	2					3						3		3
21CEC2041	Structural Engineering Design-I	3	2					3		-	4			3		
21CEC2 <mark>04L</mark>	Concrete Technology and Strength of Materials Laboratory	2.8	3	74.						3			3	3	À	3
	Geomechanics	3	3	2	14.	- 3								3		
	Geomechanics Laboratory	3	- 3	200			ŀ			3				3		3
	Irrigation and Water Resources Engineering	3	3	2	2		- 1				L.	<u> </u>		3		
	Concrete Technology and Special Concrete	3 -	2.2	3	100		2	3					2	3		
2 <mark>1CEC30</mark> 1T	Structural Analysis	2.8	3		2	4.70								3	3	
21CEC301L	Computer-Aided Civil Engineering Laboratory	2.8	2	W	2.8	2.8	٠.	184	80	3		·	3	3	3	3
21CEC302T	Structural Engineering Design-II	3	- 3	3	777								3	3		
	Transportation Engineering	2.8	3	2.8	2.8		101	Tr's		- 1	4			3		
	Transportation Engineering Laboratory	3	2	7.5		177	: 75	100	70	3 -				3	3	3
	Construction Engineering and Management	3	3						100			3		3		3
	Computer Aided Geotechnical Investigations	3	3	1		3		1						3	3	3
21CEE314J	Computer Application in Geotechnical Engineering	3	3	6	2	3	18							3	3	3
2 <mark>1CEE31</mark> 5J	Computer Application in Environmental Engineering	3	2	1	5	3					7	4		3	3	3
21CEE316J	Computer Application in Environmental Impact Assessment	3		Hii		2	2	3			7	7	Ţ	3	3	3
	Computer Application in Pavement Design	3	3	3	3	3				7		7		3	3	3
21CEE2181	Computer Application in Transportation Engineering	3	3	3	3	3					. 7			3	3	3
21CEE/161	Computer Application in Structural Engineering	3	3	T	2	75				3		7		3	3	3
	Computer Application in Surface Hydrology	3	3	4	44	3			\mathcal{N}				3	3	3	3
21CEE419J	Computer Application in Water Resources Engineering	3	3		-	3					-		3	3	3	3
21CEE420J	Remote Sensing Application in Civil	3		3	3	3					3		3	3	3	3
	Engineering GIS Application in Civil Engineering	3				2				2				2	2	2
		3		2.4		3 2.33				3		2.4		3	3	3
	Building Information Modeling Computer Application in Construction	3		2.4		2.33						2.4		3	3	3
21CEE423J	Engineering and Management	2	3		. 4 4	1	, w.					2	3	3	3	3
21CEE417J	Computer Application in Earthquake Resistant Structure	3	3	3	2	3	3	2.5	2				2	3	3	3
	Project	3	2	2	3	3	3	1	3	3	3	3	3	3	3	3
21CEP303T		3	2	2	3	3	3	1	3	3	3	3	3	3	3	3
	Major Project	3	2	2	3	3	3	1	3	3	3	3	3	3	3	3
	Major Project	3	2	2	3	3	3	1	3	3	3	3	3	3	3	3
21CEP403L		3	2	2	3	3	3	1	3	3	3	3	3	3	3	3
1	Program Average	l	l	1			l				l	l				i

17. (g) Implementation Plan: B.Tech. in Civil Engineering with Computer Applications

	Computer-Aided Civil Engineering										
•		Н	lour	s /				F	lour	s/	Т
Code	Litle	L	_		С	Code	litle				٦
21LEH101T	Communicative English	2	1			21LEH102T	Chinese				
			1	0							
			_								
			0	_	2			7	1	0	
					_			┨-	•		
				-							
		1	_	_	1 -			1	0	2	Ŧ
ZILLIMIOII		otal	·						-		T
		Otai	Oic	uits	10	21MAB102T		3	1	0	
	Semester - III					21CYR101.I		3	1	2	t
	Geniester – III		T	lour							T
Course	Course		'	loui. I	'	21CEC101T		3	0	0	
			V	ر امما	,	210001011		3	0	2	+
Oodc	Title		H								
2111112017	Transforms and Roundary Value Probl	nme	3					_			
	Hudro Machanias and Hudroulia	51110						_			
21CEC2017			3	0	0 3				U		+
210502011		otor	, 0	0	2 1		National Sonias Schams				1
		atOl y						0	0	2	1
						ZTGNMTU4L 1		4.	Ť	1.4	4
								otai	Cre	aits	<u>;</u>
	1 Capital Engineering Laboratory		0				Semester – IV				_
			2	0		_			Но	urs	/
			7	0	0 0	Code	l itle		LI.	T F	כ
21PDM201L		,,	U			21CEB201J	Applied Geology				
21LEM202T		ding	2	1	0 3				2	1 (
	Harmony and Etnical Human Conduct	T-4-	10.	4:4 م	- 24				3		
_		ı ota	ıı Cr	eait	S 24						
-	Semester – V	-							0	0 2	2
		Н	lour	s /	1				3	0 (0
							Geomechanics Laboratory		0	0 2	2
Code	Title	Т			С			rina	3	0 (0
21MAB301T	Probability and Statistics	3			_		Concrete Technology and Special Concr		_		
					4	210002011	Concrete recimology and opecial contr		3	UIL	
21CFC301T	ISITICITITAL ANALYSIS	.3	0						3	2 (
21CEC301T	Commendate Aided Chail Francisco anima		0	0	3	21DCS201P 1	Design Thinking and Methodology		1	2 (0
21CEC301T	Computer-Aided Civil Engineering		0	0	3	21DCS201P 1	Design Thinking and Methodology Critical and Creative Thinking Skills	ete	0	2 (0 2	0 2
21CEC301L	Computer-Aided Civil Engineering Laboratory	0	0	0	3	21DCS201P 1	Design Thinking and Methodology Critical and Creative Thinking Skills	ete	0	2 (0 2	0 2
21CEC301L 21CEC302T	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II	0	0 0 1	0 2 0	3 1 3	21DCS201P 1	Design Thinking and Methodology Critical and Creative Thinking Skills	ete	0	2 (0 2	0 2
21CEC301L 21CEC302T 21CEC303T	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering	0 2 3	0 0 1 0	0 2 0 0	3 1 3 3	21DCS201P ¹ 21PDM202L ¹	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI	otal	0 Cre	2 (0 2 edits	0 2
21CEC301L 21CEC302T 21CEC303T 21CEC303L	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Transportation Engineering Laboratory	0 2 3	0 0 1 0	0 2 0 0	3 1 3 3 1	21DCS201P 1 21PDM202L 1 Course	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course	Fotal	0 Cre	2 (0 2 edits	0 2
21CEC301L 21CEC302T 21CEC303T 21CEC303L E-1	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Transportation Engineering Laboratory Professional Elective – I	0 2 3	0 0 1 0	0 2 0 0	3 1 3 3 1 3	21DCS201P 1 21PDM202L 1 Course	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course	Fotal	0 Cre	2 (0 2 edits	0 2 s
21CEC301L 21CEC302T 21CEC303T 21CEC303L E-1 O	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Transportation Engineering Laboratory Professional Elective – I Open Elective – I	0 2 3 0	0 0 1 0 0	0 2 0 0 2	3 1 3 3 1 3 3	21DCS201P 1 21PDM202L 1 Course Code	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title	Fete Fotal Ho	Cre Curs /eek	2 (0 2 edits	0 2 s
21CEC301L 21CEC302T 21CEC303T 21CEC303L E-1 O 21PDM301L	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills	0 2 3 0	0 0 1 0 0	0 2 0 0 2 2	3 1 3 3 1 3 3 0	21DCS201P 1 21PDM202L 1 Course Code 21CSS303T	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title Data Science	Fotal HC W L 2	Ours Veek	2 (0 2 edits	0 2 s
21CEC301L 21CEC303T 21CEC303L 21CEC303L E-1 O 21PDM301L 21LEM301T	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form	0 2 3 0 0	0 0 1 0 0 0	0 2 0 0 2 2 2	3 1 3 3 1 3 3 0 0	21DCS201P 1 21PDM202L 1 Course Code 21CSS303T	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title Data Science Construction Engineering and	Fotal HC W L 2	Ours Veek	2 (0 2 edits	0 2 s
21CEC301L 21CEC302T 21CEC303T 21CEC303L E-1 O 21PDM301L	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect	0 2 3 0 0 1 0	0 0 1 0 0 0 0 0 0	0 0 0 0 2 2	3 1 3 3 1 3 0 0	21DCS201P 1 21PDM202L 1 Course Code 21CSS303T 21CEC304T 2	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title Data Science Construction Engineering and Management	Fotal HC W L 2	Ours Veek	2 (0 2 edits	0 2 s
21CEC301L 21CEC303T 21CEC303L 21CEC303L E-1 O 21PDM301L 21LEM301T	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect	0 2 3 0 0 1 0	0 0 1 0 0 0 0 0 0	0 0 0 0 2 2	3 1 3 3 1 3 0 0	21DCS201P 1 21PDM202L 1 Course Code 21CSS303T 21CEC304T 2 E-2	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title Data Science Construction Engineering and Management Professional Elective – II	Fotal HC W L 2	Ours Veek	2 (0 2 edits	0 2 s
21CEC301L 21CEC303T 21CEC303L 21CEC303L E-1 O 21PDM301L 21LEM301T	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect	0 2 3 0 0 1 0	0 0 1 0 0 0 0 0 0	0 0 0 0 2 2	3 1 3 3 1 3 0 0	21DCS201P 1 21PDM202L 1 Course Code 21CSS303T 21CEC304T 2 E-2 E-3	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title Data Science Construction Engineering and Management Professional Elective – II Professional Elective – III	How W	Ours Veek T 0	2 (0 2 edits P 0 0	0 2 s
21CEC301L 21CEC302T 21CEC303T 21CEC303L E-1 O 21PDM301L 21LEM301T	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect	0 2 3 0 0 1 0 otal	0 0 1 0 0 0 0 0 Cre	0 0 0 0 2 2 2 0 2	3 1 3 3 1 3 0 0	21DCS201P 1 21PDM202L 1 Course Code 21CSS303T 21CEC304T 2 E-2 E-3 21CEP302L 1	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title Data Science Construction Engineering and Management Professional Elective – II Professional Elective – III Project	How W	Ours Veek T 0	2 (0 2 edits P 0 0	0 2 s
21CEC301L 21CEC302T 21CEC303T 21CEC303L E-1 O 21PDM301L 21LEM301T 21GNP301L	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect Semester – VII	0 2 3 0 0 1 0 otal	0 0 1 0 0 0 0 0 Cre	0 2 0 0 2 2 2 0 2 edits	3 1 3 3 1 3 0 0	21DCS201P ¹ 21PDM202L ¹ 21PDM202L ¹ Course Code 21CSS303T 21CEC304T ² E-2 E-3 21CEP302L ¹ 21CEP303T ¹	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title Data Science Construction Engineering and Management Professional Elective – II Professional Elective – III Project MOOC	How W	O O O	2 (0 2 edits P 0 0	0 2 s
21CEC301L 21CEC302T 21CEC303T 21CEC303L E-1 O 21PDM301L 21LEM301T 21GNP301L	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect T Semester – VII Course	0 2 3 0 0 1 0 otal	0 0 1 0 0 0 0 0 Cre	0 2 0 0 2 2 2 0 2 edits	3 1 3 3 3 0 0 0	21DCS201P ¹ 21PDM202L ¹ 21PDM202L ¹ Course Code 21CSS303T 21CEC304T ² E-2 E-3 21CEP302L ¹ 21CEP303T ¹ O	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title Data Science Construction Engineering and Management Professional Elective – II Professional Elective – III Project MOOC Open Elective – II	Hotal	0 Cree Durs /eek T 0 0 0 0 0 0 0 0 0 0 0 0	2 (0 2 edits	0 2 s
21CEC301L 21CEC302T 21CEC303L 21CEC303L E-1 O 21PDM301L 21LEM301T 21GNP301L Course Code	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect Semester – VII Course Title	0 2 3 0 1 0 otal	0 0 0 0 0 0 0 0 Cree	0 2 0 0 2 2 2 0 2 2 dits	3 1 3 3 3 0 0 0 1 1 2 2 2	21DCS201P 1 21PDM202L 1 21PDM202L 1 Course Code 21CSS303T 21CEC304T 2 E-2 E-3 21CEP302L 1 21CEP303T 1 O 21PDM302L 1	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title Data Science Construction Engineering and Management Professional Elective – II Professional Elective – III Project MOOC Open Elective – II Employability Skills and Practices	How W	0 Cree Durs /eek T	2 (0 2 edits	0 2 s
21CEC301L 21CEC302T 21CEC303L 21CEC303L E-1 O 21PDM301L 21LEM301T 21GNP301L Course Code 21GNH401T	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect T Semester – VII Course Title Behavioural Psychology	0 2 3 0 0 1 0 otal	0 0 1 0 0 0 0 0 Cre	0 2 0 0 2 2 2 0 2 edits	3 1 3 3 1 3 0 0 0 1 1 22	21DCS201P 1 21PDM202L 1 21PDM202L 1 Course Code 21CSS303T 21CEC304T 2 E-2 E-3 21CEP302L 1 21CEP303T 1 O 21PDM302L 1	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title Data Science Construction Engineering and Management Professional Elective – II Professional Elective – III Project MOOC Open Elective – II Employability Skills and Practices Indian Traditional Knowledge	Hotel	0 Cree Durs /eek T 0 0 0 0 0 0 0 0 0	2 (0 2 edits P 0 0 6 0 0	0 2 s
21CEC301L 21CEC302T 21CEC303L 21CEC303L E-1 O 21PDM301L 21LEM301T 21GNP301L Course Code 21GNH401T E-4	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect T Semester – VII Course Title Behavioural Psychology Professional Elective – IV	0 2 3 0 1 0 otal	0 0 0 0 0 0 0 0 Cree	0 2 0 0 2 2 2 0 2 2 dits	3 1 3 3 3 0 0 0 1 1 5 22	21DCS201P 1 21PDM202L 1 21PDM202L 1 Course Code 21CSS303T 21CEC304T 2 E-2 E-3 21CEP302L 1 21CEP303T 1 O 21PDM302L 1	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title Data Science Construction Engineering and Management Professional Elective – II Professional Elective – III Project MOOC Open Elective – II Employability Skills and Practices Indian Traditional Knowledge	Hotel	0 Cree Durs /eek T 0 0 0 0 0 0 0 0 0	2 (0 2 edits P 0 0 6 0 0	0 2 s
21CEC301L 21CEC302T 21CEC303L 21CEC303L E-1 O 21PDM301L 21LEM301T 21GNP301L Course Code 21GNH401T E-4 E-5	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect T Semester – VII Course Title Behavioural Psychology Professional Elective – IV Professional Elective – V	0 2 3 0 1 0 otal	0 0 0 0 0 0 0 0 Cree	0 2 0 0 2 2 2 0 2 2 dits	3 1 3 3 3 1 1 3 3 0 0 0 1 1 5 2 2 2	21DCS201P 1 21PDM202L 1 21PDM202L 1 Course Code 21CSS303T 21CEC304T 2 E-2 E-3 21CEP302L 1 21CEP303T 1 O 21PDM302L 1	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title Data Science Construction Engineering and Management Professional Elective – II Professional Elective – III Project MOOC Open Elective – II Employability Skills and Practices Indian Traditional Knowledge	Hotel	0 Cree Durs /eek T 0 0 0 0 0 0 0 0 0	2 (0 2 edits P 0 0 6 0 0	0 2 s
21CEC301L 21CEC302T 21CEC303L 21CEC303L E-1 O 21PDM301L 21LEM301T 21GNP301L Course Code 21GNH401T E-4 E-5 E-6	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect T Semester – VII Course Title Behavioural Psychology Professional Elective – IV Professional Elective – V Professional Elective – VI	0 2 3 0 1 0 otal	0 0 0 0 0 0 0 0 Cree	0 2 0 0 2 2 2 0 2 2 dits	3 1 3 3 1 3 3 0 0 0 1 1 22	21DCS201P 1 21PDM202L 1 21PDM202L 1 Course Code 21CSS303T 21CEC304T 2 E-2 E-3 21CEP302L 1 21CEP303T 1 O 21PDM302L 1 21LEM302T 1	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title Data Science Construction Engineering and Management Professional Elective – II Professional Elective – III Project MOOC Open Elective – II Employability Skills and Practices Indian Traditional Knowledge To	Hotal (0 Crec	2 (0 2 dits	0 2 s
21CEC301L 21CEC303T 21CEC303L 21CEC303L E-1 O 21PDM301L 21LEM301T 21GNP301L Course Code 21GNH401T E-4 E-5	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect T Semester – VII Course Title Behavioural Psychology Professional Elective – IV Professional Elective – V	0 2 3 0 1 0 otal	0 0 0 0 0 0 0 0 Cree	0 2 0 0 2 2 2 0 2 2 dits	3 1 3 3 3 1 1 3 3 0 0 0 1 1 5 2 2 2	21DCS201P 1 21PDM202L 1 21PDM202L 1 Course Code 21CSS303T 21CEC304T 2 E-2 E-3 21CEP302L 1 21CEP303T 1 O 21PDM302L 1 21LEM302T 1	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title Data Science Construction Engineering and Management Professional Elective – II Professional Elective – III Project MOOC Open Elective – II Employability Skills and Practices Indian Traditional Knowledge To Semester - VIII Course	Hotal (Hotal (Ho	0 0 0 0 0 Cree	2 (0 2 dits / C P 0 0 dits / C P 0 0 dits	0 2 s
21CEC301L 21CEC302T 21CEC303L 21CEC303L E-1 O 21PDM301L 21LEM301T 21GNP301L Course Code 21GNH401T E-4 E-5 E-6	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect T Semester – VII Course Title Behavioural Psychology Professional Elective – IV Professional Elective – V Professional Elective – VI	0 2 3 0 1 0 otal	0 0 0 0 0 0 0 0 Cree	0 2 0 0 2 2 2 0 2 2 dits	3 1 3 3 1 3 3 0 0 0 1 1 22	21DCS201P 1 21PDM202L 1 21PDM202L 1 Course Code 21CSS303T 21CEC304T 2 E-2 E-3 21CEP302L 1 21CEP303T 1 O 21PDM302L 1 21LEM302T 1	Design Thinking and Methodology Critical and Creative Thinking Skills Semester – VI Course Title Data Science Construction Engineering and Management Professional Elective – II Professional Elective – III Project MOOC Open Elective – II Employability Skills and Practices Indian Traditional Knowledge To	Hoo W	Durs /eek	2 (0 2 edits	0 2 5 5
21CEC301L 21CEC302T 21CEC303L 21CEC303L E-1 O 21PDM301L 21LEM301T 21GNP301L Course Code 21GNH401T E-4 E-5 E-6 E-7	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect T Semester – VII Course Title Behavioural Psychology Professional Elective – IV Professional Elective – VI Professional Elective – VI Professional Elective – VI Professional Elective – VII Open Elective – III	0 2 3 0 1 0 0 1 0 0 0 1 2 2	0 0 0 0 0 0 0 0 0 Cree	0 0 0 2 2 0 2 2 edits	3 1 3 3 3 0 0 0 1 1 22 22	21DCS201P 1 21PDM202L 1 Course Code 21CSS303T 21CEC304T 2 E-2 E-3 21CEP302L 1 21CEP303T 1 O 21PDM302L 1 21LEM302T 1 Course Code	Design Thinking and Methodology Critical and Creative Thinking Skills Semester - VI Course Title Data Science Construction Engineering and Management Professional Elective - II Professional Elective - III Project MOOC Open Elective - II Employability Skills and Practices Indian Traditional Knowledge To Semester - VIII Course Title	Hotal (Ours Veek T O O O O Crec urs veek T	2 (0 2 edits	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
21CEC301L 21CEC303T 21CEC303L E-1 O 21PDM301L 21LEM301T 21GNP301L Course Code 21GNH401T E-4 E-5 E-6 E-7 O	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect T Semester – VII Course Title Behavioural Psychology Professional Elective – IV Professional Elective – V Professional Elective – VI Professional Elective – VII Open Elective – III Open Elective – III	0 2 3 0 0 1 0 0 otal	0 0 1 0 0 0 0 0 Cre	0 0 0 0 2 2 2 0 2 2 edits	3 1 3 3 3 3 0 0 0 1 1 2 2 2 2 2	21DCS201P 1 21PDM202L 1 Course Code 21CSS303T 21CEC304T 2 E-2 E-3 21CEP302L 1 21CEP303T 1 O 21PDM302L 1 21LEM302T 1 Course Code 21CEP401L	Design Thinking and Methodology Critical and Creative Thinking Skills Semester - VI Course Title Data Science Construction Engineering and Management Professional Elective - II Professional Elective - III Project MOOC Open Elective - II Employability Skills and Practices Indian Traditional Knowledge To Semester - VIII Course Title Major Project	Fotal How W. L. T. Hoo W. Ho	Ours Veek T 0 0 0 0 0 Cree urs eek T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 (do 2 do	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
21CEC301L 21CEC303T 21CEC303L E-1 O 21PDM301L 21LEM301T 21GNP301L Course Code 21GNH401T E-4 E-5 E-6 E-7 O #Students hav	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect T Semester – VII Course Title Behavioural Psychology Professional Elective – IV Professional Elective – V Professional Elective – VI Professional Elective – VII Open Elective – III e to register either 21CEP401L or 21CEP	0 2 3 0 0 1 0 0 otal	0 0 1 0 0 0 0 0 Cre	0 0 0 0 2 2 2 0 2 2 edits	3 1 3 3 3 3 0 0 0 1 1 2 2 2 2 2	21DCS201P 1 21PDM202L 1 Course Code 21CSS303T 21CEC304T 2 E-2 E-3 21CEP302L 1 21CEP303T 1 O 21PDM302L 1 21LEM302T 1 Course Code 21CEP401L 21CEP402L	Design Thinking and Methodology Critical and Creative Thinking Skills Semester - VI Course Title Data Science Construction Engineering and Management Professional Elective - II Professional Elective - III Project MOOC Open Elective - II Employability Skills and Practices Indian Traditional Knowledge To Semester - VIII Course Title Major Project Major Project	Fotal How W. L	O O O O O O O O O O O O O O O O O O O	2 (do 2 do	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
21CEC301L 21CEC302T 21CEC303L 21CEC303L E-1 O 21PDM301L 21LEM301T 21GNP301L Course Code 21GNH401T E-4 E-5 E-6 E-7 O	Computer-Aided Civil Engineering Laboratory Structural Engineering Design-II Transportation Engineering Laboratory Professional Elective – I Open Elective – I Analytical and Logical Thinking Skills Indian Art Form Community Connect T Semester – VII Course Title Behavioural Psychology Professional Elective – IV Professional Elective – V Professional Elective – VI Professional Elective – VII Open Elective – III Open Elective – III	0 2 3 0 0 1 0 0 otal	0 0 1 0 0 0 0 0 Cre	0 0 0 0 2 2 2 0 2 2 edits	3 1 3 3 3 3 0 0 0 1 1 2 2 2 2 2	21DCS201P 1 21PDM202L 1 Course Code 21CSS303T 21CEC304T 2 E-2 E-3 21CEP302L 1 21CEP303T 1 O 21PDM302L 1 21LEM302T 1 Course Code 21CEP401L	Design Thinking and Methodology Critical and Creative Thinking Skills Semester - VI Course Title Data Science Construction Engineering and Management Professional Elective - II Professional Elective - III Project MOOC Open Elective - II Employability Skills and Practices Indian Traditional Knowledge To Semester - VIII Course Title Major Project Internship#	Fotal How W. L	O O O O O O O O O O O O O O O O O O O	2 (do 2 do 1	0 22 5 5



SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

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

Kattankulathur, Chengalpattu District 603203, Tamil Nadu, India