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

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

Kattankulathur, Kancheepuram District 603203, Tamil Nadu, India

9. B.Tech. in Civil Engineering

9. (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

9. (b) Program Educational Objectives (PEO)

PEO - 1	Graduates will pursue higher studies in civil engineering, management and other related fields
PEO - 2	Graduates will perform as professional engineers in the fields of civil engineering
PEO - 3	Graduates will perform in diverse fields and gradually move into teamwork and leadership positions.
PEO - 4	Graduates will contribute to the development of the profession, nation and society

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

	Mission Stmt 1	Mission Stmt 2	Mission Stmt 3
PEO - 1	Н	H	M
PEO - 2	Н	M	Н
PEO - 3	Н	M	H
PEO - 4	H	M	Н

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

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

						Progra	m Lear	ning Ou	tcomes	(PLO)					
	Graduate Attributes (GA)											Prog Out	gram S <mark>pe</mark> comes (F	ecific PSO)	
	Engineering Knowledge	Problem Analysis	Design & Development	Analysis, Design, Research	Modem Tool Usage	Society & Culture	Environment & Sustainability	Ethics	Individual & Team Work	Communication	Project Mgt. & Finance	Life Long Leaming	PSO - 1	PSO-2	PSO-3
PEO - 1	Н	Н	Н	Н	Н	L	L	L	L	L	L	L	H	Н	Н
PEO - 2	Н	Н	Н	Н	Н	L	L	L	L	L	L	L	Н	Н	Н
PEO - 3	L	L	L	L	М	М	L	Н	Н	Н	Н	Н	М	M	М
PEO - 4	L	L	L	L	L	Н	Н	Н	М	М	М	Н	М	М	М

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

PSO – Program Specific Outcomes (PSO)

DSO 1	Graduates apply the knowledge of mathematical and physical sciences to solve problems in structural engineering, construction engineering
PSO - 1 manager PSO - 2 Graduate related p	management, geotechnical engineering, water resources engineering, environmental engineering and transportation engineering
DCO 2	Graduates are capable of handling and applying modern engineering tools, software, Remote Sensing and GIS for solving civil engineering
P30 - 2	related problems
PSO - 3	Graduates are capable of working in teams in laboratory and industrial environment and carrying out major design projects

9. (e) Program Structure: B.Tech. in Civil Engineering

Code Title L T P C 18PC Code Title L T P C 18PC Code Title L T P C 18PC Flower Code Course Code Title L T P C 18PC Flower Code Course Title L T P C 18PC Flower Code Course Flower Code Course Title L T P C 18PC Flower Code Course Title L T P C 18PC Flower Code Course Title L T P C 18PC Flower Code Course Flower Code Course Total Learning Credits To	L 3 3 3 3 3 3 3 2	T 1 1 1 1 1 1 1 1 0	2 0 0 0 0 0 0 0 0	C 5 5 4 4 4 4 4 4 2 32 32
Course Code Title L T P C 18PC 18PC 19PC 18PC 19PC 18PC 19PC 18PC 19PC 19PC 18PC 19PC 19PC 19PC 18PC 19PC 19PC 19PC 18PC 19PC 19PC 19PC 19PC 19PC 19PC 19PC 19	Hou L 3 3 3 3 2 2 0 2 0 2	T 1 1 1 1 1 1 1 1 0 0 T T T 1 1 1 1 1 1	P 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C 5 5 4 4 4 4 4 4 2 32 32
Code Title L T P C 18LEH102J English 2 0 2 3 18LEH102J Chinese 18LEH102J Chinese 18LEH103J French 18LEH104J German 2 0 2 3 18LEH105J Japanese 18LEH105J Japanese 18LEH105J Japanese 18LEH105J Japanese 18LEH105J Japanese 18LEH105J Management Principles for Engineers 2 0 0 2 1 18PDH102T Management Principles for Engineers 2 0 0 2 1 18PDH103T Social Engineering 2 0 0 2 1 18PDH201T Employability Skills & Practices 0 0 2 1 18PDH201T Engineering Graphics and Design 1 0 4 3 18EES102J Basic Civil and Mechanical Engineering 3 1 2 5 18EES101J Programming for Problem Solving 3 0 4 5 18ECS203T Structural Analysis 18CEC205T Structural Analysis 18CEC205T Structural Analysis 18CEC205T Structural Analysis 18CEC205T Hydraulic Engineering and Design 18DPM201L Congetencies in Social Skills and Practices 0 0 2 0 18DPM201L Cringenes Institute 0 0 2 0 18DPM201L Cringenes Institute 0 0 2 0 18DPM201L Cringenes Institute 0 0 2 0 18DPM201L Critical and Creative Thinking Skills 0 0 2 0 18DPM201L Critical and Creative Thinking Skills 0 0 2 0 18DPM201L Critical and Creative Thinking Skills 0 0 2 0 18DPM201L Critical and Creative Thinking Skills 0 0 2 0 18DPM201L Critical and Creative Thinking Skills 0 0 2 0 18DPM201L Critical and Creative Thinking Skills 0 0 2 0 18DPM201L Critical and Creative Thinking Skills 0 0 2 0 18DPM201L Critical and Creative Thinking Skills 0 0 2 0 18DPM201L Critical and Creative Thinking Skills 0 0 2 0 18DPM201L Critical and Creative Thinking Skills 0 0 2 0 18DPM201L Critical and Creative Thinking Skills 0 0 2 0 18DPM201L Critical and Creative Thinking Skills 0 0 2 0 18DPM201L Critical and Creative Thinking Skills 0 0 2 0 18DPM201L Critic	3 3 3 3 3 2 Hou L 3 2 0 2	1 1 1 1 1 1 1 0	2 0 0 0 0 0 0 0 0	5 5 4 4 4 4 4 2 32
RELFH102. Engineering Graphics and Design 1	3 3 3 3 3 2 Hou L 3 2 0 2	1 1 1 1 1 1 1 0	2 0 0 0 0 0 0 0 0	5 4 4 4 4 4 2 32
18LEH102J Chinese 18LEH103J French 18LEH105J Japanese 18LEH105J Japanese 18LEH105J Japanese 18LEH105J Japanese 18DEH105J Japanese	3 3 3 3 2 2 Hou L 3 2 0 2	1 1 1 1 1 0	0 0 0 0 0 0	4 4 4 4 2 32
18LEH104J German	Hou L 3 2 0 2 0 2	1 1 1 0	0 0 0 0	4 4 4 2 32
18LEH104J German 2 0 2 3 3 18LEH105J Japanese 18LEH105J Japanese 18LEH105J Korean 18PDH101T General Aptitude 0 0 2 1 18PDH101T Social Engineering 2 0 0 2 1 18PDH101T Employability Skills & Practices 0 0 2 1 18PDH201T Employability Skills & Practices 0 0 2 1 18PDH201T Employability Skills & Practices 0 0 2 1 18PDH201T Engineering Graphics and Design 1 0 4 3 18EES102L Electrical and Electronics Eng. Workshop 1 0 4 3 18EES102L Electrical and Electronics Eng. Workshop 1 0 4 3 18EES102L Electrical and Electronics Eng. Workshop 1 0 4 3 18EES203T Engineering Surveying 18CEC203T Engineering Surveying 18CEC203T Engineering Surveying 18CEC205T Engineering Surveying 18CEC205T Engineering Surveying 18CEC205T Engineering Laboratory 18CEC205T Engineering Laboratory 18CEC208L Environmental Engineering Laboratory 18CEC208L	Hou L 3 2 0 2 0 2	1 1 0 urs/ V T 1 1	0 0 0 0	4 4 2 32
18LEH105J Japanese	Hou L 3 2 0 2 0 2	1 0 urs/V	0 0 Week	4 2 32
18LEH106J Korean 18PDH101T General Aptitude 0 0 0 2 1 1 18PDH102T Management Principles for Engineers 2 0 0 0 2 2 18PDH201T Employability Skills & Practices 0 0 0 2 1 18PDH201T Employability Skills & Practices 0 0 0 2 1 18PDH201T Employability Skills & Practices 0 0 0 2 1 18PDH201T Employability Skills & Practices 0 0 0 2 1 18PDH201T Employability Skills & Practices 0 0 0 2 1 18PDH201T Employability Skills & Practices 0 0 0 2 1 18PDH201T Employability Skills & Practices 0 0 0 2 1 18PDH202L Employability Skills & Practices 0 0 0 2 0 18PDH201T Employability Skills & Practices 0 0 0 2 0 18PDH202L Employability Skills & Practices 0 0 0 2 0 18PDH202L Employability Skills & Practices 0 0 0 2 0 18PDH202L Engineering Science Courses (S) Total Learning Credits 18CEC201T Engineering Geology 18CEC202T Fluid Mechanics Laboratory 18CEC202T Fluid Mechanics Laboratory 18CEC202T Incidence of Structures 18CEC202T Incidence of Structures 18CEC202T Incidence of Structures 18CEC202T Incidence of Structures 18CEC202T Incidence of Structural Analysis 18CEC205T Incidence of Structur	Hou L 3 2 0 2 0 2	0 urs/V T 1	0 Week	2 32
18PDH101T	2 Hou L 3 2 0 2 0 2	urs/ V	0 Week	2 32
Total Learning Credits Social Engineering Soc	Hou L 3 2 0 2 0 2 0 2	urs/ V	Week	32
18PDH103T Social Engineering 2 0 0 2 1	Hou L 3 2 0 2 0 2 0 2	T 1	Р	
Total Learning Credits Course	L 3 2 0 2 0 2	T 1	Р	
Total Learning Credits Course	L 3 2 0 2 0 2	T 1	Р	
Code Course Hours/ Week L T P C C Reference Sign Title L T P C Total Learning Gredits Total Learning Surveying Total Learning	L 3 2 0 2 0 2	T 1	Р	
Course	2 0 2 0 2	1		C
Course Code Title L T P C 18MES101L Engineering Graphics and Design 1 0 4 3 18EES102L Electrical and Electronics Eng. Workshop 1 0 4 3 18CEC203L Engineering Surveying 18CEC203L Engineering Surveying 18CEC203L Engineering Surveying 18CEC205T Structural Analysis Laboratory 18CEC205T Structural Analysis 18CEC205T Hydraulic Engineering Analysis Laboratory 18CEC205T Hydraulic Engineering Analysis Laboratory 18CEC205T Hydraulic Engineering and Design 18CEC205T Design of RC and Steel Structures 18CEC205T Environmental Engineering and Design 18CEC205T Environmental Engineering and Design 18CEC205T Environmental Engineering Laboratory 18CEC205T Environmental Engineering and Design 18CEC205T Environmental Engineering Laboratory 18CEC205T Engineering Laboratory 18CEC205T Environmental Engineering Laboratory 18CEC205T Environmental Engineering Laborator	0 2 0 2		0	4
Code Title L T P C 18MES101L Engineering Graphics and Design 1 0 4 3 18MES102J Basic Civil and Mechanical Engineering 3 1 2 5 18EST02L Electrical and Electronics Eng. Workshop 1 0 4 3 18CEC203L Strength of Materials Laboratory 18CES101J Programming for Problem Solving 3 0 4 5 16CEC203T Interest Structures 18CEC204T Engineering Surveying 18CEC204T Engineering Surveying 18CEC204T Engineering Surveying 18CEC204T Engineering Surveying 18CEC205T Structural Analysis 18CEC205T Structural Analysis 18CEC205T Interest In	0 2 0 2		-	3
18MES101L Engineering Graphics and Design	0 2			1
18MES102J Basic Civil and Mechanical Engineering 3 1 2 5 18EES102L Electrical and Electronics Eng. Workshop 1 0 4 3 18CES204T Engineering Surveying 18CES204T Engineering Surveying 18CEC204T Engineering Surveying 18CEC204T Engineering Surveying 18CEC204T Engineering Surveying 18CEC204T Engineering Surveying 18CEC204T Engineering Surveying 18CEC204T Engineering Surveying 18CEC204T Engineering Surveying 18CEC204T Engineering Surveying 18CEC204T	0	1		3
Total Learning Credits 16 16 16 16 16 16 16 1	2	0		1
Total Learning Credits 16 18CEC205T Structural Analysis 18CEC206T Hydraulic Engineering And Design 18CEC205T Structural Analysis 18CEC206T Hydraulic Engineering And Design 18CEC206T Engineering Analysis 18CEC206T Structural Analysis 18CEC206T Hydraulic Engineering And Design 18CEC206T Engineering Analysis 18CEC206T Engineering Analysis 18CEC206T Structural Analysis 18CEC206T Hydraulic Engineering and Design 18CEC206T Engineering Analysis 18CEC206T Engineering Analysis 18CEC206T Structural Analysis 18CEC206T Hydraulic Engineering Analysis 18CEC206T Engineering Analys		1		3
Total Learning Credits 16 18CEC205T Structural Analysis 18CEC205T 18CEC206T Hydraulic Engineering and Design 18CEC206T Hydraulic Engineering Laboratory 18CEC206T Hydraulic Engineering Laboratory 18CEC206T Design of RC and Steel Structures 18CEC206T Environmental Engineering and Design 18CEC208T Environmental Engineering and Design 18CEC208T Environmental Engineering Laboratory 18CEC208T Environmental Engineering 18CEC208T Hydralogy and Water Resources Engineering 18CEC300T Hydralogy and Water Resources Engineering 18CEC300T Geotechnical Engineering 18CEC300T Geotechnical Engineering 18CEC300T Geotechnical Engineering 18CEC300T 18CEC300T Geotechnical Engineering 18CEC300T 18CEC300T Geotechnical Engineering 18CEC300T 18CEC3		0		1
Mandatory Courses (M) 18CEC205L Computer Aided Structural Analysis Laboratory 18CEC206T Hydraulic Engineering and Design 18CEC206T Design of RC and Steel Structures 18CEC207T Design of RC and Steel Structures 18CEC208T Environmental Engineering and Design 18CEC208T Environmental Engineering and Design 18CEC208T Environmental Engineering Laboratory 18CEC208T Hydrology and Water Resources Engineering 18CEC301T Hydrolog	2	1		
Mandatory Courses (M) 18CEC206T Hydraulic Engineering and Design 18CEC206L Hydraulic Engineering and Design 18CEC206L Hydraulic Engineering Laboratory 18CEC207T Design of RC and Steel Structures 18CEC20	0	0		1
Code Course Title L T P C 18PDM101L Professional Skills and Practices 0 0 0 2 0 18PDM201L Competencies in Social Skills 18PDM203L Entrepreneurial Skill Development 0 0 0 2 0 18PDM203L Control of the professional Skills of the profess	2	1		
18PDM101L Professional Skills and Practices 0 0 2 0 18CEC207T Design of RC and Steel Structures 18PDM201L Competencies in Social Skills 0 0 2 0 18CEC208T Environmental Engineering and Design 18PDM202L Environmental Engineering Laboratory 18PDM202L Contical and Creative Thinking Skills 0 0 2 0 18CEC308T Environmental Engineering Laboratory 18PDM204L Business Basics for Entrepreneurs 0 0 2 0 18CEC308T Hydrology and Water Resources Engineering 18CEC308T 18CEC30	0	0	-	1
18PDM201L Competencies in Social Skills	4	0		4
18PDM203L Entrepreneurial Skill Development 0 0 2 0 18CEC208L Environmental Engineering Laboratory 18PDM202L Critical and Creative Thinking Skills 0 0 2 0 18CEC301T Hydrology and Water Resources Engineering 18PDM204L Business Basics for Entrepreneurs 0 0 2 0 18CEC302T Geotechnical Engineering 18PDM204L Application of Laboratory 18PDM204L 18PD	2	1		3
18PDM202L Critical and Creative Thinking Skills 18PDM204L Business Basics for Entrepreneurs 18PDM204L Business Basics for Entrepreneurs 18PDM204L Applytical and Logical Thinking Skills 18PDM204L Applytical and Logical Thinking Skills 18PDM204L Business Basics for Entrepreneurs	0	0		1
18PDM204L Business Basics for Entrepreneurs 0 0 2 0 18CEC302T Geotechnical Engineering	3	1	0	4
18CFC3021 Gentechnical Engineering Laboratory	2	1		_
	0	0		
18PDM302L Entrepreneurship Management	2	1		3
	0	0		
	2	1	0	3
				3
18GNM101L Physical and Mental Health using Yoga 0 0 2 0 18CEC304L Construction Engineering and Management Laboratory	0	0	2	1
18GNM102L NSS Laboratory	0	-	_	-
18GNM103L NCC	U	1	0	1
18GNM104L NSO Total Learning Credits	_	_		49
18LEM109T Indian Traditional Knowledge				
18LEM110L Indian Art Form				
18CEM401J Professional Enhancement Course 1				
18CEM402T Professional Enhancement Course 2 1 0 0 0				
Project Work, Seminar, Internship In Open Elective Courses (0)			11.000	
Industry / Higher Technical Institutions (P) Any 6 Courses				
	Ноп	irs/\	Neek	
Code Title L T P C Code Title	I	_		_
18CEP101L Massive Open Online Course – I Courses offered to Civil Engineering	-	'	<u>''</u>	
18CEP102L Industrial Training-I 0 0 2 1 18CEO301T Advanced Design of RCC	2	1	0	3
18CEP103L Seminar – I 18CEO302J Modern Civil Engineering Economics	2	0	_	
18CEP104L Massive Open Online Course - II 18CEO303J Modern Tools in Engineering Surveying	2	0	+	
	-	-	+	_
190CD10CL Comings II	2	1	-	+
18CEP1071 Minor Project	3	0	0	3
18CEP107L Millior Project	3	0	0	3
18CEP100L Denicet	2	0	2	3
Total Learning Credits Total Learning Cred		Ť	_	18
		_		10
18CEO305T Environmental Impact Assessment	3			3
	3			3
	3	0	0	3
18CEO405T Water Pollution and its Management	3	0	0	3
18CE0406T Global Warming and Climate Change	3	0	0	3
		0	0	3
18CF0407T Applications of Remote Sensing and CIS	- 7		0	18
18CE0407T Applications of Remote Sensing and GIS Total Learning Credit	3			70

	Professional Elective Courses (E)						Professional Elective Courses (E)				
	Any 6 Courses						Any 6 Courses				
Course	Course	Но	urs/1	Week		Course	Course	Hou	rs/ W	/eek	
Code	Title	L	Τ	Р	С	Code	Title	L	Τ	Ρ	С
	Geotechnical Engineering						Water Resources Engineering				
18CEE301T	Foundation Engineering and Design	3	0	0	3	18CEE313T	Design of hydraulic structures and Irrigation	3	Λ	0	3
18CEE302T	Geotechnical Design	3	0	0	3	TOCEESTST	Engineering	J	U	U	J
18CEE303T	Ground Improvement Techniques	3	0	0	3	18CEE314T	Ground Water Engineering	3	0	0	3
18CEE304T	Foundation on Expansive Soil	3	0	0	3	18CEE315T	Surface Hydrology	3	0	0	3
	Structural Engineering						Transportation Engineering				
18CEE305J	Concrete Technology	2	0	2	3	18CEE401T	Pavement Analysis and Design	3	0	0	3
18CEE306T	Prestressed Concrete Structures	3	0	0	3	18CEE402T	Railways, Airport and Harbour Engineering	3	0	0	3
18CEE307T	Design of Earthquake Resistant Structures	3	0	0	3	18CEE403T	Traffic Engineering and Management	3	0	0	3
18CEE308T	Design of Steel-Concrete Composite	3	٥	0	3		Construction Engineering and Management				
100EE3001	Structures	3	U	U	3	18CEE404T	Construction Equipment and Automation	3	0	0	3
18CEE309T	Geographic Information System	3	0	0	3	18CEE405T	Contracts Management	3	0	0	3
	Environmental Engineering					18CEE406T	Repairs and Rehabilitation of Structures	3	0	0	3
18CEE310T	Solid and Hazardous Waste Management	3	0	0	3	18CEE407T	Sustainable Construction Methods	3	0	0	3
18CEE311T	Air and Noise Pollution and Control	3	0	0	3		Total Learning Credits				18
18CEE312T	Environmental Impact Assessment and Life Cycle Analysis	3	0	0	3	V					

9. (f) Program Articulation: B.Tech. in Civil Engineering

				Р	rog	ram	Lea	arni	ng (Outo	com	es (PLO))		
						Grad	uate	Attrib	outes						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	PSO-1	PSO-2	PSO-3
	Engineering Geology	Н	Н	М	М	L	L	L	L	L	L	L	Н	М	М	М
18CEC202T	Fluid Mechanics	Н	Н	М	М	M	L	L	L	L	L	L	Н	М	М	М
	Fluid Mechanics Laboratory	Н	Н	М	М	М	L	М	М	L	М	L	Н	М	М	L
	Mechanics of Structures	Н	М	М	М	М	L	М	L	М	М	L	Н	Н	Н	Н
	,	Н	М	М	М	М	L	М	L	М	М	М	Н	Н	Н	Н
	0 0 0	Н	Н	М	М	М	L	L	L	М	М	М	М	М	М	М
	Engineering Surveying Laboratory	Н	Н	Н	Н	М	L	L	L	М	L	М	Н	L	Н	L
		Н	Н	М	Н	М	L	М	М	L	L	М	Н	М	L	М
		Н	Н	Н	Н	М	L	L	L	М	М	М	М	L	L	L
	Hydraulic Engineering and Design	Н	Н	Н	Н	М	L	L	L	Н	L	М	Н	Н	Н	L
	Hydraulic Engineering Laboratory	Н	Н	М	Н	М	L	М	М	L	L	М	Н	М	L	М
	Design of RC and Steel Structures	Н	Н	М	М	М	L	L	L	М	М	М	М	М	М	М
18CEC208T	Environmental Engineering and Design	Н	Н	Н	Н	М	М	М	L	L	L	М	М	L	L	L
18CEC208L	Environmental Engineering Laboratory	Н	Н	Н	Н	М	L	М	L	Н	L	М	Н	М	Н	L
18CEC301T	Hydrology and Water Resources Engineering	Н	Н	М	Н	М	L	L	L	М	М	М	Н	М	М	L
18CEC302T	Geotechnical Engineering	Н	Н	M	Μ	Н	Н	Н	L	М	L	L	Н	Н	М	М
18CEC302L	Geotechnical Engineering Laboratory	Н	Н	М	М	М	L	L	L	М	М	М	М	М	М	М
18CEC303T	Highway Engineering and Design	Н	Н	М	М	М	L	L	L	М	М	Н	М	М	М	М
18CEC303L	Highway Engineering Laboratory	Н	Н	М	Н	М	L	L	L	М	М	М	Н	М	М	М
18CEC304T	Construction Engineering and Management	Н	Н	М	Н	М	L	L	L	М	М	М	Н	М	М	М
18CEC304L	Construction Engineering & Management Lab	Н	Н	М	Н	М	L	L	L	М	М	М	Н	М	М	М
18CEC350T	Comprehension	Н	Н	Н	Н	М	М	Н	М	М	М	Н	Н	Μ	М	Н
18CEP101L	Massive Open Online Course - I	Н	М	М	М	М	М	М	М	Н	Н	Н	М	Н	Н	Н
18CEP102L	Industrial Training-I	Н	М	М	М	М	М	М	М	Н	Н	Н	М	Н	Н	Н
18CEP103L	Seminar - I	Н	М	М	М	М	М	М	М	Н	Н	Н	М	Н	Н	Н
	Massive Open Online Course - II	Н	М	М	М	М	М	М	М	Н	Н	Н	М	Н	Н	Н
18CEP105L	Industrial Training-II	Н	М	М	М	М	М	М	М	Н	Н	Н	М	Н	Н	Н
18CEP106L	Seminar - II	Н	М	М	М	М	М	М	М	Н	Н	Н	М	Н	Н	Н
	mmo rojout	Н	Н	Н	Н	Н	М	М	Н	Н	Н	Н	Н	Н	М	М
	Internship (4-6 weeks)	Н	Н	Н	Н	Н	М	М	Н	Н	Н	Н	Н	Н	М	М
18CEP109L	Project	Н	Н	Н	Н	Н	М	М	Н	Н	Н	Н	Н	Н	М	М
18CEP110L	Semester Internship	Н	Н	Н	Н	Н	М	М	Н	Н	Н	Н	Н	Н	М	М
	Program Average	Н	Н	М	Н	М	L	М	L	М	М	М	Н	М	М	М

9. (g) Implementation Plan: B.Tech. in Civil Engineering

	Semester - I	Шо	ırs/ W	look	1		Semester - II	Цои	ırs/ V	look	
Code	Course Title	L	Τ	Р	С	Code	Course Title	L	Τ	Р	С
18LEH101J		2	0	2	3		Chinese / French / German / Japanese/ Korean		0	2	3
	Calculus and Linear Algebra	3	1	0	4		Advanced Calculus and Complex Analysis	3	1	0	4
10MEC1011	Physics: Mechanics and Mechanics of Solids Engineering Graphics and Design	3	0	4	5 3	18CYB101J	Electrical and Electronics Eng. Workshop	3	1	4	5 3
	Basic Civil and Mechanical Engineering	3	1	2	5		Programming for Problem Solving	3	0	4	5
	Professional Skills and Practices	0	0	2	0		General Aptitude	0	0	2	1
	Constitution of India	1	0	0	0		Value Education	1	0	1	0
	Physical and Mental Health using Yoga	0	0	2	0	18GNM102L		<u>'</u>	Ŭ	<i>'</i>	Ŭ
	Total Learning Credits				20	18GNM103L		0	0	2	0
				18GNM104L					21		
				Total Learning Credits							
	Semester - III		Semester - IV								
Code	Course Title		ırs/ V		С	Code	Course Title	Hou	ırs/ V		С
		L	Τ	Р				L	Τ	Р	
	Transforms and Boundary Value Problems	3	1	0	4		Numerical Methods for Engineers	3	1	0	4
18BTB101T		2	0	0	2		Structural Analysis	2	1	0	3
	Engineering Geology	3	1	0	4		Computer Aided Structural Analysis Laboratory	0	0	2	1
	Fluid Mechanics	2	1	0	3		Hydraulic Engineering and Design	2	0	0	3
	Fluid Mechanics Laboratory Mechanics of Structures	2	0	0	3		Hydraulic Engineering Laboratory Design of RC and Steel Structures	0	0	0	1
	Strength of Materials Laboratory	0	0	2	1		Environmental Engineering and Design	2	1	0	3
	Engineering Surveying	2	1	0	3		Environmental Engineering Laboratory	0	0	2	1
	Engineering Surveying Laboratory	0	0	2	1		Social Engineering	2	0	0	2
	Management Principles for Engineers	2	0	0	2		Critical and Creative Thinking Skills				
	Competencies in Social Skills						Business Basics for Entrepreneurs	0	0	2	0
18PDM203L	Entrepreneurial Skill Development	0	0	2	0		Environmental Science	1	0	0	0
	Total Learning Credits		Total Learning Credits				22				
	Semester - V		Semester - VI								
Heure/Meek						-		Ноп	ırs/ V	look	
Code	Course Title	L	Τ	Р	С	Code	Course Title	L	Τ	Р	С
	Probability and Statistics	3	1	0	4		Highway Engineering and Design	2	1	0	3
	Hydrology and Water Resources Engineering	3	1	0	4		Highway Engineering Laboratory	0	0	2	1
	Geotechnical Engineering	2	1	0	3	18CEC3041	Construction Engineering and Management	2	1	0	3
	Geotechnical Engineering Laboratory	0	0	0	3	18CEC304L	Construction Engineering and Management	0	0	2	1
	Professional Elective – 1 Open Elective – 1	3	0	0	3	19CEC250T	Laboratory Comprehension	0	1	0	1
	Open Elective – 2	3	0	0	3	10CEC3301	Professional Elective – 2	3	0	0	3
	Massive Open Online Course - I	J	U	U	J		Professional Elective – 3	3	0	0	3
18CFP102L	Industrial Training-I	0	0	2	1		Open Elective – 3	3	0	0	3
18CEP103L		٦ŭ		_			Open Elective – 4	3	0	0	3
	Analytical and Logical Thinking Skills					18CEP104L	Massive Open Online Course - II				
	Entrepreneurship Management	0	0	2	0		Industrial Training-II	0	0	2	1
	Indian Traditional Knowledge	1	0	0	0	18CEP106L					
	Total Learning Credits	;		•	22	18PDH201T	Employability Skills and Practices	0	0	2	1
	-711-4-1		М			18LEM110L	Indian Art Form	0	0	2	0
	A TANAL A	15			: 4		Total Learning Credits				23
	Semester - VII						Semester - VIII				
Code	Course Title		ırs/ W		С	Code	Course Title		ırs/V		С
	Professional Elective – 4	L	Τ	Р		18CEP109L	Project	L	T	Р	
	Professional Elective – 4 Professional Elective – 5	3	0	0	3		Semester Internship	0	0	20	10
	Professional Elective – 5 Professional Elective – 6	3	0	0	3		Professional Enhancement Course 2	1	0	0	0
	Open Elective – 5	3	0	0	3	100EIVI4021	Professional Enhancement Course 2	1	U	U	U
		3	0	0	3						
	I Open Flective – b			-		101		1	1	l .	1
	Open Elective – 6 Minor Project										
18CEP107L	Minor Project	0	0	6	3						
18CEP107L 18CEP108L				6			Total Learning Credits				10
18CEP107L 18CEP108L	Minor Project Internship (4-6 weeks)	0	0		3		Total Learning Credits				10