## **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



## 10. B.Tech. in Civil Engineering with Computer Applications

#### 10. (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.

#### 10. (b) Program Educational Objectives (PEO)

PEO - 1	Graduates will pursue higher studies in civil engineering software applications, 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

#### 10. (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

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

						Progra	m Lear	ning Ou	tcomes	(PLO)	12.5				
					Gra	aduate At	tributes (0	GA)					Prog Out	gram S <mark>pe</mark> comes (F	cific (SO)
	Engineering Knowledge	Problem Analysis	Design & Development	Analysis, Design, Research	Modern Tool Usage	Society & Culture	Environment & Sustainability	Ethics	Individual & Team Work	Communication	Project Mgt. & Finance	Life Long Leaming	PSO - 1	PSO - 2	PSO-3
PEO - 1	Н	Н	Н	Н	Н	L	L	L	L	L	L	L	Н	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	М	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)

PSO - 1	Graduates apply the knowledge of mathematical and physical sciences to solve problems in structural engineering, construction engineering
F30 - 1	management, geotechnical engineering, water resources engineering, environmental engineering and transportation engineering
PSO - 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

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

	Humanities & Social Sciences						Basic Science Courses (B)				
	including Management Courses (H)					Course	Course	Hou	rs/ W		
Course		Hour		eek P	0	Code	Title	L	T	Р	C
Code 18LEH101J Englis	Title	L 2	T 0	2	C 3	18PYB102J 18CYB101J	Physics: Mechanics and Mechanics of Solids	3	1	2	5
18LEH102J Chine			U		J		Calculus and Linear Algebra	3	1	0	4
18LEH103J Frenc			İ	İ			Advanced Calculus and Complex Analysis	3	1	0	4
18LEH104J Germ	man	2	0	2	3		Transforms and Boundary Value Problems	3	1	0	4
18LEH105J Japan			ļ				Numerical Methods for Engineers	3	1	0	4
18LEH106J Korea		0	0	_	_		Probability and Statistics	3	1	0	4
18PDH101T Gener	eral Aptitude agement Principles for Engineers	2	0	0	2	18BTB101T	Biology   Total Learning Credits	2	0	0	2 <b>32</b>
18PDH103T Social		2	0	0	2		Total Learning Credits				32
	oloyability Skills & Practices	0	0	2	1		Professional Core Courses (C)				
	Total Learning Credits				12	Course	Course	Hou	rs/ W	/eek	
						Code	Title	L	Т	Р	С
	Engineering Science Courses (S)			1			Engineering Geology	3	1	0	4
Course	Course	Hour			0		Fluid Mechanics	2	1	0	3
Code	Title ineering Graphics and Design	1	T 0	P 4	3 3		Fluid Mechanics Laboratory	0	0	2	1
	ic Civil and Mechanical Engineering	3	1	2	5		Mechanics of Structures Strength of Materials Laboratory	0	0	2	3
	trical and Electronics Eng. Workshop	1	0	4	3			2	1	0	3
	gramming for Problem Solving	3	0	4	5		Engineering Surveying Laboratory	0	0	2	1
	Total Learning Credits				16	18CEC205T	Structural Analysis	2	1	0	3
							Computer Aided Structural Analysis Laboratory	0	0	2	1
	Mandatory Courses (M)			_			Hydraulic Engineering and Design	2	1	0	3
Code	Course Title	L	T	P	С		Hydraulic Engineering Laboratory	0	0	2	1
	essional Skills and Practices  petencies in Social Skills	0	0	2	0		Design of RC and Steel Structures  Environmental Engineering and Design	2	0	0	3
	rperencies in Social Skills repreneurial Skill Development	0	0	2	0	18CEC208L	Environmental Engineering And Design Environmental Engineering Laboratory	0	0	2	1
	cal and Creative Thinking Skills						Hydrology and Water Resources Engineering	3	1	0	4
	iness Basics for Entrepreneurs	0	0	2	0		Geotechnical Engineering	2	1	0	3
	lytical and Logical Thinking Skills	0	0	2	0	18CEC302L	Geotechnical Engineering Laboratory	0	0	2	1
	epreneurship Management						Highway Engineering and Design	2	1	0	3
18LEM101T Const		1	0	0	0		Highway Engineering Laboratory	0	0	2	1
	ie Education sical and Mental Health using Yoga	0	0	2	0	18CEC304T	Construction Engineering and Management	2	7	0	3
18GNM102L NSS		U	U		U	18CEC304L	Construction Engineering and Management Laboratory	0	0	2	1
18GNM103L NCC		0	0	2	0	18CEC350T	Comprehension	0	1	0	1
18GNM104L NSO	)					100L03301	Total Learning Credits		'	0	49
	an Traditional Knowledge	1	0	0	0						
18LEM110L Indian	an Art Form	0	0	2	0		Open Elective Courses (O)				
					Λ		Open Liective Courses (O)				
18CFM401.1 Profes		1		0	0		Any 6 Courses				
	essional Enhancement Course 1 essional Enhancement Course 2	1	0	2	0 0	Course	Any 6 Courses  Course			/eek	
18CEM402T Profes	ressional Enhancement Course 1 ressional Enhancement Course 2	1	0	2	0	Code	Any 6 Courses Course Title	L	Т	Р	C
18CEM402T Profes	essional Enhancement Course 1 essional Enhancement Course 2 Project Work, Seminar, Internship In	1	0	2	0	Code 18CEO305J	Any 6 Courses Course Title Computer Application in Structural Engineering	L 1	T 0	P 4	3
18CEM402T Profes	essional Enhancement Course 1 essional Enhancement Course 2 Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)	1	0	2 0	0	Code	Any 6 Courses Course Title	L	Т	Р	
Indus Course Code	ressional Enhancement Course 1 ressional Enhancement Course 2  Project Work, Seminar, Internship In stry / Higher Technical Institutions (P)  Course Title	1	0	2 0	0	Code 18CEO305J	Any 6 Courses  Course  Title  Computer Application in Structural Engineering  Computer Application in Construction Engineering	L 1	T 0	P 4	3
Indus Course Code 18CEP101L Massi	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P) Course Title sive Open Online Course - I	1 1 Hour	0 0 rs/W	2 0	0 0	Code 18CEO305J 18CEO306J 18CE0307J	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and	1 1 1	T 0 0 0	P 4 4 4	3 3
18CEM402T   Profest	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P) Course Title sive Open Online Course - I ustrial Training-I	1 1 Hour	0 0	2 0	0 0	Code 18CEO305J 18CEO306J	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng.	1 1	T 0	P 4 4	3
TREEM402T   Profest	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I strial Training-I	1 1 Hour	0 0 rs/W	2 0	0 0	Code 18CEO305J 18CEO306J 18CE0307J	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and	1 1 1	T 0 0 0	P 4 4 4	3 3
Technology	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P) Course Title sive Open Online Course - I strial Training-I sive Open Online Course - II	Hour L 0	0 0 0 rs/W T	eek P	0 0	Code 18CEO305J 18CEO306J 18CEO307J 18CEO308J 18CEO403J	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering	1 1 1 1	T 0 0 0 0 0 0 0	P 4 4 4 4 4 4	3 3 3 3
Indus   Indu	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I strial Training-I strial Training-I	1 1 Hour	0 0 rs/W	2 0	0 0	Code 18CEO305J 18CEO306J 18CEO307J 18CEO308J 18CEO403J	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Fundamentals of Computing	1 1 1 1 1 2	0 0 0	P 4 4 4 4 4	3 3 3 3 3 3
Technology	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I strial Training-II uinar - II	Hourris 0	0 0 0 T 0	eek P	0 0 1	Code 18CEO305J 18CEO306J 18CEO307J 18CEO308J 18CEO403J	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Fundamentals of Computing Total Learning Credi	1 1 1 1 2 its	T 0 0 0 0 0 0 0	P 4 4 4 4 4 4	3 3 3 3
Indus   Course   Code   IRCEP101L   Massi   18CEP102L   Indusi   18CEP103L   Semir   18CEP104L   Massi   18CEP106L   Semir   18CEP106L   Semir   18CEP107L   Minor   18CEP108L   Intern   Intern   Intern   Intern   Intern   Intern   Intern   Intern   Intern   I	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P) Course Title sive Open Online Course - I strial Training-I ninar - I strial Training-II or Project mship (4-6 weeks)	Hour L 0	0 0 0 rs/W T	eek P	0 0	Code 18CEO305J 18CEO306J 18CEO307J 18CEO308J 18CEO403J 18CEO404J	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Fundamentals of Computing  Total Learning Credi Courses offered to other Engineering brand	L 1 1 1 1 1 2 its	0 0 0 0	P 4 4 4 4 4 4 2	3 3 3 3 3 18
Indus   Course   Code   IRCEP101L   Massi   18CEP102L   Indus   18CEP105L   Indus   18CEP105L   Indus   18CEP106L   Semir   18CEP107L   Minor   18CEP108L   Inter   18CEP109L   Inter   IRCEP109L   IRCEP109	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In sitry / Higher Technical Institutions (P) Course Title sive Open Online Course - I strial Training-I sivier Open Online Course - II sivier Open Online Course - II sirial Training-II sirial Training-II siriar - II or Project rmship (4-6 weeks) ect	Hour L 0 0 0	0 0 T 0 0	2 0 eek P 2 2	0 0 1 1	Code 18CEO305J 18CEO306J 18CEO308J 18CEO403J 18CEO404J 18CEO404J	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Fundamentals of Computing Total Learning Credit Courses offered to other Engineering brand Environmental Impact Assessment	L 1 1 1 1 2 2 its ches 3	0 0 0 0 0	P 4 4 4 4 4 2 0 0	3 3 3 3 3 18
Indus   Course   Code   Indus   Course   Code   IRCEP101L   Indusi   IRCEP103L   Semir   IRCEP104L   Massi   IRCEP105L   Indusi   IRCEP106L   Semir   IRCEP107L   Minor   IRCEP108L   Intern   IRCEP108L   IR	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I uinar - I uinar - II	Hourris 0	0 0 T 0 0	eek P	C 1 1 3 10	Code 18CEO305J 18CEO306J 18CEO308J 18CEO403J 18CEO404J 18CEO305T 18CEO306T	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Fundamentals of Computing  Total Learning Credi Courses offered to other Engineering brand Environmental Impact Assessment Municipal Solid Waste Management	L 1 1 1 1 1 2 2 its ches 3 3	0 0 0 0 0 0	P 4 4 4 4 4 2 2 0 0 0 0	3 3 3 3 3 18
Indus   Course   Code   IRCEP101L   Massi   18CEP102L   Indus   18CEP105L   Indus   18CEP105L   Indus   18CEP106L   Semir   18CEP107L   Minor   18CEP108L   Inter   18CEP109L   Inter   IRCEP109L   IRCEP109	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In sitry / Higher Technical Institutions (P) Course Title sive Open Online Course - I strial Training-I sivier Open Online Course - II sivier Open Online Course - II sirial Training-II sirial Training-II siriar - II or Project rmship (4-6 weeks) ect	Hour L 0 0 0	0 0 T 0 0	2 0 eek P 2 2	0 0 1 1	Code 18CEO305J 18CEO306J 18CEO308J 18CEO403J 18CEO404J 18CEO404J	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Fundamentals of Computing Total Learning Credit Courses offered to other Engineering brand Environmental Impact Assessment	L 1 1 1 1 2 2 its ches 3	0 0 0 0 0	P 4 4 4 4 4 2 0 0	3 3 3 3 3 18
Indus   Course   Code   IRCEP101L   Massi   18CEP102L   Indus   18CEP105L   Indus   18CEP105L   Indus   18CEP106L   Semir   18CEP107L   Minor   18CEP108L   Inter   18CEP109L   Inter   IRCEP109L   IRCEP109	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I uinar - I uinar - II	Hour L 0 0 0	0 0 T 0 0	2 0 eek P 2 2	C 1 1 3 10	Code 18CEO305J 18CEO306J 18CEO308J 18CEO403J 18CEO404J 18CEO305T 18CEO306T	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Fundamentals of Computing  Total Learning Credi Courses offered to other Engineering brand Environmental Impact Assessment Municipal Solid Waste Management	L 1 1 1 1 1 2 2 its ches 3 3	0 0 0 0 0 0	P 4 4 4 4 4 2 2 0 0 0 0	3 3 3 3 3 18
Indus   Course   Code   IRCEP101L   Massi   18CEP102L   Indus   18CEP105L   Indus   18CEP105L   Indus   18CEP106L   Semir   18CEP107L   Minor   18CEP108L   Inter   18CEP109L   Inter   IRCEP109L   IRCEP109	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I uinar - I uinar - II	Hour L 0 0 0	0 0 T 0 0	2 0 eek P 2 2	C 1 1 3 10	Code 18CEO305J 18CEO306J 18CEO308J 18CEO403J 18CEO404J 18CEO305T 18CEO306T 18CEO307T	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Fundamentals of Computing Total Learning Credit Courses offered to other Engineering brand Environmental Impact Assessment Municipal Solid Waste Management Disaster Mitigation and Management	1 1 1 1 2 cits ches 3 3 3 3	0 0 0 0 0 0	P 4 4 4 4 4 4 2 2 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 18 3 3 3
Indus   Course   Code   IRCEP101L   Massi   18CEP102L   Indus   18CEP105L   Indus   18CEP105L   Indus   18CEP106L   Semir   18CEP107L   Minor   18CEP108L   Inter   18CEP109L   Inter   IRCEP109L   IRCEP109	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I uinar - I uinar - II	Hour L 0 0 0	0 0 T 0 0	2 0 eek P 2 2	C 1 1 3 10	Code 18CEO305J 18CEO306J 18CEO308J 18CEO403J 18CEO404J 18CEO305T 18CEO306T 18CEO307T 18CEO405T	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Fundamentals of Computing Total Learning Credi Courses offered to other Engineering brance Environmental Impact Assessment Municipal Solid Waste Management Disaster Mitigation and Management Water Pollution and its Management	1 1 1 1 1 2 its 3 3 3 3 3 3 3	0 0 0 0 0 0	P 4 4 4 4 4 4 2 2 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 18 3 3 3 3
Indus   Course   Code   IRCEP101L   Massi   18CEP102L   Indus   18CEP105L   Indus   18CEP105L   Indus   18CEP106L   Semir   18CEP107L   Minor   18CEP108L   Inter   18CEP109L   Inter   IRCEP109L   IRCEP109	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I uinar - I uinar - II	Hour L 0 0 0	0 0 T 0 0	2 0 eek P 2 2	C 1 1 3 10	Code 18CEO305J 18CEO306J 18CEO308J 18CEO403J 18CEO404J 18CEO305T 18CEO306T 18CEO307T 18CEO405T 18CEO406T	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Total Learning Credi Courses offered to other Engineering brance Environmental Impact Assessment Municipal Solid Waste Management Disaster Mitigation and Management Water Pollution and its Management Global Warming and Climate Change Applications of Remote Sensing and GIS	1 1 1 1 2 its ches 3 3 3 3 3 3 3 3 3 3	0 0 0 0 0 0 0	P 4 4 4 4 4 4 2 2 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 18 3 3 3 3 3 3
Indus   Course   Code   RCEP101L   Massi   18CEP103L   Semir   18CEP105L   Indus   18CEP105L   Indus   18CEP105L   Indus   18CEP107L   Minor   18CEP107L   Minor   18CEP108L   Inter   18CEP109L   Project	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I uinar - I uinar - II	Hour L 0 0 0	0 0 T 0 0	2 0 eek P 2 2	C 1 1 3 10	Code 18CEO305J 18CEO306J 18CEO308J 18CEO403J 18CEO404J 18CEO305T 18CEO306T 18CEO307T 18CEO405T 18CEO406T	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Total Learning Credit Courses offered to other Engineering brance Environmental Impact Assessment Municipal Solid Waste Management Disaster Mitigation and Management Water Pollution and its Management Global Warming and Climate Change	1 1 1 1 2 its ches 3 3 3 3 3 3 3 3 3 3	0 0 0 0 0 0 0	P 4 4 4 4 4 4 2 2 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 18 3 3 3 3 3 3 3
Indus   Course   Code   RCEP101L   Massi   18CEP103L   Semir   18CEP105L   Indus   18CEP105L   Indus   18CEP105L   Indus   18CEP107L   Minor   18CEP107L   Minor   18CEP108L   Inter   18CEP109L   Project	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I uinar - I uinar - II	Hour L 0 0 0	0 0 T 0 0	2 0 eek P 2 2	C 1 1 3 10	Code 18CEO305J 18CEO306J 18CEO308J 18CEO403J 18CEO404J 18CEO305T 18CEO306T 18CEO307T 18CEO405T 18CEO406T	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Total Learning Credi Courses offered to other Engineering brance Environmental Impact Assessment Municipal Solid Waste Management Disaster Mitigation and Management Water Pollution and its Management Global Warming and Climate Change Applications of Remote Sensing and GIS	1 1 1 1 2 its ches 3 3 3 3 3 3 3 3 3 3	0 0 0 0 0 0 0	P 4 4 4 4 4 4 2 2 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 18 3 3 3 3 3 3 3
Indus   Course Code	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I uinar - I uinar - II	Hour L 0 0 0	0 0 T 0 0	2 0 eek P 2 2	C 1 1 3 10	Code 18CEO305J 18CEO306J 18CEO306J 18CEO308J 18CEO404J 18CEO404J 18CEO305T 18CEO306T 18CEO306T 18CEO405T 18CEO406T 18CEO407T	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Fundamentals of Computing Total Learning Credit Courses offered to other Engineering brance Environmental Impact Assessment Municipal Solid Waste Management Disaster Mitigation and Management Water Pollution and its Management Global Warming and Climate Change Applications of Remote Sensing and GIS Total Learning Credit Professional Elective Courses (E) Any 6 Courses	L 1 1 1 1 1 2 its ches 3 3 3 3 3 3 3 3 3 3 3 5 5	0 0 0 0 0 0 0 0 0	P 4 4 4 4 4 4 2 2 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 18
Indus   Course Code	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I uinar - I uinar - II	Hour L 0 0 0	0 0 T 0 0	2 0 eek P 2 2	C 1 1 3 10	Code 18CEO305J 18CEO306J 18CEO306J 18CEO308J 18CEO404J 18CEO404J 18CEO305T 18CEO306T 18CEO307T 18CEO406T 18CEO406T 18CEO407T Course	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering  Total Learning Credit Courses offered to other Engineering brand Environmental Impact Assessment Municipal Solid Waste Management Disaster Mitigation and Management Water Pollution and its Management Global Warming and Climate Change Applications of Remote Sensing and GIS  Total Learning Credit  Professional Elective Courses (E) Any 6 Courses Course	1 1 1 1 1 1 2 its ches 3 3 3 3 3 3 3 3 3 3 5 ts	0 0 0 0 0 0 0 0 0	P 4 4 4 4 4 4 2 2 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 3 18 3 3 3 3 3 3 3 3 3 3 3 3 3
Indus   Course   Code   IRCEP101L   Massi   18CEP102L   Indus   18CEP105L   Indus   18CEP105L   Indus   18CEP106L   Semir   18CEP107L   Minor   18CEP108L   Inter   18CEP109L   Inter   IRCEP109L   IRCEP109	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I uinar - I uinar - II	Hour L 0 0 0	0 0 T 0 0	2 0 eek P 2 2	C 1 1 3 10	Code 18CEO305J 18CEO306J 18CEO306J 18CEO308J 18CEO404J 18CEO404J 18CEO305T 18CEO306T 18CEO306T 18CEO405T 18CEO406T 18CEO407T	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Total Learning Credit Courses offered to other Engineering brance Environmental Impact Assessment Municipal Solid Waste Management Disaster Mitigation and Management Water Pollution and its Management Global Warming and Climate Change Applications of Remote Sensing and GIS Total Learning Credit Professional Elective Courses (E) Any 6 Courses Course Title	L 1 1 1 1 1 2 its ches 3 3 3 3 3 3 3 3 3 3 3 5 5	0 0 0 0 0 0 0 0 0	P 4 4 4 4 4 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 3 18 3 3 3 3 3 3 3 3 3 3 3 3 3
Industrial   Ind	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I uinar - I uinar - II	1 1 1 Hourn L 0 0 0 0	0 0 T 0 0 0	2 0 eek P 2 2 6 20	C 1 1 3 10	Code 18CEO305J 18CEO306J 18CEO306J 18CEO308J 18CEO403J 18CEO404J  18CEO305T 18CEO306T 18CEO306T 18CEO306T 18CEO406T 18CEO407T  Course Code	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Total Learning Credi Courses offered to other Engineering brand Environmental Impact Assessment Municipal Solid Waste Management Disaster Mitigation and Management Water Pollution and its Management Global Warming and Climate Change Applications of Remote Sensing and GIS Total Learning Credit  Professional Elective Courses (E) Any 6 Courses Course Title Geotechnical Engineering	1 1 1 1 1 2 its these 3 3 3 3 3 3 is	0 0 0 0 0 0 0 0 0 0 0 0	P 4 4 4 4 4 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 18 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Indus	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I ustrial Training-II uinar - II uor Project mship (4-6 weeks) ect ect ester Internship  Total Learning Credits  Professional Elective Courses (E) Any 6 Courses Course	1 1 1 Hourn L 0 0 0 0	0 0 T 0 0 0	2 0 eek P 2 2 6 20 Week	C 1 1 3 10 15	Code 18CEO305J 18CEO306J 18CEO306J 18CEO308J 18CEO404J 18CEO404J 18CEO305T 18CEO306T 18CEO307T 18CEO406T 18CEO406T 18CEO407T Course	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Total Learning Credit Courses offered to other Engineering brance Environmental Impact Assessment Municipal Solid Waste Management Disaster Mitigation and Management Water Pollution and its Management Global Warming and Climate Change Applications of Remote Sensing and GIS Total Learning Credit Professional Elective Courses (E) Any 6 Courses Course Title	1 1 1 1 1 1 2 its ches 3 3 3 3 3 3 3 3 3 3 5 ts	0 0 0 0 0 0 0 0 0	P 4 4 4 4 4 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 18 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Indus	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I strial Training-I ninar - I sive Open Online Course - III ustrial Training-II ninar - II orr - roject reship (4-6 weeks) eect nester Internship  Total Learning Credits  Professional Elective Courses (E) Any 6 Courses Course Title	1 1 1 Hourn L 0 0 0 0	0 0 T 0 0 0	2 0 eek P 2 2 6 20	C 1 1 3 10	Code 18CEO305J 18CEO306J 18CEO306J 18CEO308J 18CEO403J 18CEO404J  18CEO305T 18CEO306T 18CEO306T 18CEO307T 18CEO405T 18CEO406T 18CEO406T 18CEO30TT 18CEE301T 18CEE302T 18CEE303T	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Fundamentals of Computing Total Learning Credi Courses offered to other Engineering brance Environmental Impact Assessment Municipal Solid Waste Management Disaster Mitigation and Management Water Pollution and its Management Global Warming and Climate Change Applications of Remote Sensing and GIS Total Learning Credit  Professional Elective Courses (E) Any 6 Courses Course Title Geotechnical Engineering Foundation Engineering and Design	L 1 1 1 1 1 1 2 2 1 1 1 1 1 1 2 2 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 4 4 4 4 4 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 18 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Indus	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I ustrial Training-II uinar - II uinar - II uir - Project maship (4-6 weeks) eect eester Internship  Total Learning Credits  Professional Elective Courses (E) Any 6 Courses Course Title uctural Engineering	Hourt L O O O O O O O O O O O O O O O O O O	0 0 0 0 0 0 0	2 0 eek P 2 2 6 20 Week P P	C 1 1 3 10 15	Code 18CEO305J 18CEO306J 18CEO306J 18CEO308J 18CEO404J 18CEO404J 18CEO305T 18CEO306T 18CEO306T 18CEO406T 18CEO406T 18CEO406T 18CEO406T 18CEO406T 18CEO406T 18CEO406T 18CEO406T 18CEO406T 18CEO407T	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Construction Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Total Learning Credit Courses offered to other Engineering brand Environmental Impact Assessment Municipal Solid Waste Management Disaster Mitigation and Management Water Pollution and its Management Global Warming and Climate Change Applications of Remote Sensing and GIS Total Learning Credit  Professional Elective Courses (E) Any 6 Courses Course Title Geotechnical Engineering Foundation Engineering and Design Geotechnical Engineering Foundation Engineering Techniques Foundation on Expansive Soil	L 1 1 1 1 1 1 2 its its its its its its its its its its	0 0 0 0 0 0 0 0 0 0 0 0 0	P 4 4 4 4 4 4 4 2 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 18 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Indus	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I uinar - II  1 1 1 0 0 0 0 0	0 0 T 0 0 0 0	2 2 2 2 6 20 Neek P 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	C 1 1 3 10 15	Code 18CEO305J 18CEO306J 18CEO306J 18CEO308J 18CEO403J 18CEO404J  18CEO305T 18CEO306T 18CEO306T 18CEO307T 18CEO405T 18CEO406T 18CEO406T 18CEO30TT 18CEE301T 18CEE302T 18CEE303T	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Total Learning Credit Courses offered to other Engineering brance Environmental Impact Assessment Municipal Solid Waste Management Disaster Mitigation and Management Water Pollution and its Management Global Warming and Climate Change Applications of Remote Sensing and GIS Total Learning Credit  Professional Elective Courses (E) Any 6 Courses Course Title Geotechnical Engineering Foundation Engineering and Design Geotechnical Design Ground Improvement Techniques Foundation on Expansive Soil Water Resources Engineering	L 1 1 1 1 1 1 2 2 1 1 1 1 1 1 2 2 1	0 0 0 0 0 0 0 0 0 0 0 0 0	P 4 4 4 4 4 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 3 3 18 3 3 3 3 3 3 3 3 3 3 3 3 3 3	
Indus	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I ustrial Training-II uinar - II uinar - II uir - Project maship (4-6 weeks) eect eester Internship  Total Learning Credits  Professional Elective Courses (E) Any 6 Courses Course Title uctural Engineering	Hourt L O O O O O O O O O O O O O O O O O O	0 0 0 0 0 0 0	2 2 2 6 20 Week P	C 1 1 3 10 15	Code 18CEO305J 18CEO306J 18CEO306J 18CEO308J 18CEO403J 18CEO404J  18CEO305T 18CEO306T 18CEO306T 18CEO307T 18CEO405T 18CEO406T 18CEO406T 18CEO30TT 18CEE301T 18CEE302T 18CEE303T	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Geotechnical and Transportation Eng. Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering  Total Learning Credit Courses offered to other Engineering brand Environmental Impact Assessment Municipal Solid Waste Management Disaster Mitigation and Management Water Pollution and its Management Global Warming and Climate Change Applications of Remote Sensing and GIS Total Learning Credit  Professional Elective Courses (E) Any 6 Courses Course Title Geotechnical Engineering Foundation Engineering and Design Geotechnical Design Ground Improvement Techniques Foundation on Expansive Soil Water Resources Engineering Design of hydraulic structures and Irrigation	L 1 1 1 1 1 1 2 2 1 1 1 1 1 1 2 2 1	0 0 0 0 0 0 0 0 0 0 0 0 0	P 4 4 4 4 4 4 2 0 0 0 0 0 0 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
Indus	essional Enhancement Course 1 essional Enhancement Course 2  Project Work, Seminar, Internship In ustry / Higher Technical Institutions (P)  Course Title sive Open Online Course - I ustrial Training-I uinar - I ustrial Training-II uinar - II	1 1 1 0 0 0 0 0	0 0 0 0 0 0 0	2 2 2 6 20 Week P	C 1 1 3 10 15 C C 3 3 3 3	Code 18CEO305J 18CEO306J 18CEO306J 18CEO308J 18CEO403J 18CEO404J  18CEO305T 18CEO305T 18CEO306T 18CEO306T 18CEO405T 18CE0406T 18CE0406T 18CE0406T 18CE0301T 18CEE301T 18CEE301T 18CEE303T 18CEE304T	Any 6 Courses Course Title Computer Application in Structural Engineering Computer Application in Construction Engineering and Management RS and GIS Application in Civil Engineering Computer Application in Geotechnical and Transportation Eng. Computer Application in Water Resources and Environmental Engineering Total Learning Credit Courses offered to other Engineering brance Environmental Impact Assessment Municipal Solid Waste Management Disaster Mitigation and Management Water Pollution and its Management Global Warming and Climate Change Applications of Remote Sensing and GIS Total Learning Credit  Professional Elective Courses (E) Any 6 Courses Course Title Geotechnical Engineering Foundation Engineering and Design Geotechnical Design Ground Improvement Techniques Foundation on Expansive Soil Water Resources Engineering	1 1 1 1 1 1 2 2 1 1 1 1 1 1 2 1 1 1 1 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 4 4 4 4 4 4 4 2 0 0 0 0 0 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

	Environmental Engineering					18CEE315T	Surface Hydrology	3	0	0	3
18CEE310T	Solid and Hazardous Waste Management	3	0	0	3		Transportation Engineering				
18CEE311T	Air and Noise Pollution and Control	3	0	0	3	18CEE401T	Pavement Analysis and Design	3	0	0	3
18CEE312T	Environmental Impact Assessment and Life Cycle	2	0	0	3	18CEE402T	Railways, Airport and Harbour Engineering	3	0	0	3
10CEE3121	Analysis	J	U	U	3	18CEE403T	Traffic Engineering and Management	3	0	0	3
							Construction Engineering and Mgmt.				
						18CEE404T	Construction Equipment and Automation	3	0	0	3
						18CEE405T	Contracts Management	3	0	0	3
						18CEE406T	Repairs and Rehabilitation of Structures	3	0	0	3
						18CEE407T	Sustainable Construction Methods	3	0	0	3
							Total Learning Credits				18
											_

## 10. (f) Program Articulation: B.Tech. in Civil Engineering with Computer Applications

				Р	rog	ram	Lea	arni	ng (	Outo	com	es (	PLO	<b>D</b> )		
						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
		Н	Н	М	М	М	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
	3 3 7 9	H	Н	М	М	М	L	L	L	М	М	М	М	М	М	М
	0 0 7 0	Н	Н	Н	Н	М	L	L	L	М	L	М	Н	L	Н	L
	Structural Analysis	Н	Н	М	Н	М	L	М	М	L	L	М	Н	М	L	М
	Computer Aided Structural Analysis Laboratory	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	M	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	М	Н	Н	Н	L	М	L	L	Н	Н	М	M
	Geotechnical Engineering Laboratory	Н	Н	М	Μ	М	L	L	L	М	М	М	М	М	М	M
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
	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	M	М	Н
18CEP101L	Massive Open Online Course - I	Н	М	М	М	М	М	М	М	Н	Н	Н	М	Н	Н	Н
	Industrial Training-I	Н	М	М	М	М	М	М	М	Н	Н	Н	М	Н	Н	Н
		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
	Minor Project	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
	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

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

	Semester - I						Semester - II				
		Hou	ırs/ V	Veek	: -			Hou	rs/ V	/eek	
Code	Course Title	L	Т	Р	С	Code	Course Title	L	T	Р	С
18LEH101J		2	0	2	3		Chinese / French / German / Japanese/ Korean		0	2	3
	Calculus and Linear Algebra	3	1	2	5		Advanced Calculus and Complex Analysis	3	1	2	5
	Physics: Mechanics and Mechanics of Solids Engineering Graphics and Design		0	4	3	18CYB101J	Electrical and Electronics Eng. Workshop	1	0	4	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	18GNM102J		ı	U	1	U
TOGINIVITOTE	Total Learning Credits	_	U		20	18GNM103L		0	0	2	0
	Total Learning Credits	,			20	18GNM104L		ľ		_	
							Total Learning Credits				21
	Semester - III						Semester - IV				
Code	Course Title		ırs/ V		С	Code	Course Title		rs/V		С
		L	Τ	Р			550.05	L	T	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	1	0	3
	Fluid Mechanics Laboratory	0	0	2	1		Hydraulic Engineering Laboratory	0	0	2	1
	Mechanics of Structures	2	1	0	3		Design of RC and Steel Structures	4	0	0	4
	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	0	0	2	0
	Competencies in Social Skills	0	0	2	0		Business Basics for Entrepreneurs				-
18PDM203L	Entrepreneurial Skill Development		U	_		18CYM101T	Environmental Science	1	0	0	0
	Total Learning Credits	<u> </u>			24		Total Learning Credits				22
	Semester - V						Semester - VI				
0 1	O T''	Hou	ırs/ V	Veek		0 1	O T:U	Hou	rs/ V	/eek	_
Code	Course Title	L	Τ	Р	C	Code	Course Title	L	Τ	Р	С
18MAB301T	Probability and Statistics	3	1	0	4	18CEC303T	Highway Engineering and Design	2	1	0	3
18CEC301T	Hydrology and Water Resources Engineering	3	1	0	4	18CEC303L	Highway Engineering Laboratory	0	0	2	1
	Geotechnical Engineering	2	1	0	3	18CEC304T	Construction Engineering and Management	2	1	0	3
18CEC302L	Geotechnical Engineering Laboratory	0	0	2	1	18CEC304L	Construction Engineering and Management	0	0	2	1
	Professional Elective – 1	3	0	0	3		Laboratory				
	Open Elective – 1	3	0	0	3	18CEC350T	Comprehension	0	1	0	1
	Open Elective – 2	3	0	0	3		Professional Elective – 2	3	0	0	3
	Massive Open Online Course - I						Professional Elective – 3	3	0	0	3
	Industrial Training-I	0	0	2	1		Open Elective – 3	3	0	0	3
18CEP103L							Open Elective – 4	3	0	0	3
	Analytical and Logical Thinking Skills	0	0	2	0		Massive Open Online Course - II	_	_	_	
	Entrepreneurship Management						Industrial Training-II	0	0	2	1
18LEM109T	Indian Traditional Knowledge	1	0	0	0	18CEP106L		_			
	Total Learning Credits	•			22		Employability Skills and Practices	0	0	2	1
	/ / / / PA				100	18LEM110L	Indian Art Form	0	0	2	0
							Total Learning Credits				23
	Semester - VII	Ho	ırs/ V	Veek	:	-	Semester - VIII	Нои	rs/ V	/eek	
Code	Course Title	L	T	P	C	Code	Course Title	I	T	P	С
	Professional Elective – 4	3	0	0	3	18CEP109L	Project	Ť			
	Professional Elective – 5	3	0	0	3		Semester Internship	0	0	20	10
		3	0	0	3		Professional Enhancement Course 2	1	0	0	0
	Professional Elective – n		U			TOOLIVITOZI	1 TOTOGOTORIA ERINARIOGNICITE OULIGO Z	-	U	J	U
	Professional Elective – 6		Ω	(1)	- 7						
	Open Elective – 5	3	0	0	3						
	Open Elective – 5 Open Elective – 6	3	0	0	3						
18CEP107L	Open Elective – 5 Open Elective – 6 Minor Project	3	-	-							
18CEP107L 18CEP108L	Open Elective – 5 Open Elective – 6	3	0	0	3		Total Learning Credits				10