ACADEMIC CURRICULA

POSTGRADUATE DEGREE PROGRAMMES

Master of Technology in

Construction Engineering and Management

Two Years (Full-Time)

Learning Outcome Based Education

Choice Based Flexible Credit System

Academic Year

2020 - 2021



SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

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

Kattankulathur, Chengalpattu District 603203, Tamil Nadu, India

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M.Tech in Construction Engineering and Management

1. Department Vision Statement										
Stmt - 1	1 To emerge as a world ranking department									
Stmt - 2	To foster quality knowledge in Civil Engineering and allied disciplines to meet the changing industrial and societal needs									
Stmt - 3	3 To inculcate ethical values among the students to best serve the world for the betterment of mankind									
2. De	2. Department Mission Statement									
Stmt - 1	To move up through international alliances and collaborative initiatives in civil engineering to achieve global excellence									
Stmt - 2	To accomplish a process to advance knowledge in a rigorous research environment related to civil engineering and allied disciplines									
Stmt - 3	³ To attract and build people in a rewarding and inspiring environment by fostering freedom, empowerment, creativity and innovation.									
3. Pro	Program Education Objectives (PEO)									
PEO - 1	1 Graduates will perform as professional engineers in the various fields of Civil engineering.									
PEO - 2	2 Graduates will perform well in their specialized field and gradually move into teamwork and leadership positions									
PEO - 3	Graduates will pursue higher studies	and lifelong learning in tl	heir specialized fields of Civil Engineering							
PEO - 4	Graduates will exhibit entrepreneurship qualities and perform as an all-round achiever									
PEO - 5	Graduates will contribute to the devel	opment of the professior	n, nation and society							
4. Co	nsistency of PEO's with Mission of	the Department								
	Mission Stmt 1	Mission Stmt 2	Mission Stmt 3							
PEO - 1	Н	М	Н							
PEO - 2	2 H M H									
PEO - 3	Н	Н	М							
PEO - 4	Н	М	Н							
PEO - 5	Н	М	Н							
H – High Correlation, M – Medium Correlation, L – Low Correlation										

5. Co	5. Consistency of PEO's with Program Learning Outcomes (PLO)														
	Program Learning Outcomes (PLO)														
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Team Work	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
PEO - 1	Н	Н	Н	Н	М	Н	М	М	Н	М	L	L	Н	L	L
PEO - 2	Н	М	М	L	L	Н	L	Н	Н	Н	Н	Н	Н	Н	М
PEO - 3	Н	Н	Н	Н	Н	L	М	М	Н	L	L	L	М	L	L
PEO - 4	L	L	L	L	L	Н	М	М	М	Н	Н	Н	Н	Н	М
PEO - 5	L	L	L	L	L	М	L	L	L	Н	М	Н	L	L	М

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

	amme Structure (70 Total Credits)							
	1. Professional Core Courses (C)			2. Professional Elective Courses (E)				
Course	(4 Courses) Course Hou	rs/Week	Course	(5 Courses) Course	Ηοι	urs/ W	leek	
Code	Title L	T P C	Code	Title	L	T	P	С
20CEC516J 20CEC517J	Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3	0 2 4	20MAE5021 20CEE516T	Construction Personnel Management	4	1 0	0 0	4
20CEC518T	Modernistic Approaches in Construction 4	0 0 4	20CEE517T	Resource Management		<u> </u>		
200506167	Construction Economics and Financial	1 0 4	20CEE6161 20CEE617T	Advanced Construction Methods	4	0	0	4
200200101	Management 5	16	20CEE618T	Contract Laws and Regulations				
			20CEE620T	Energy Efficient Buildings	4	0	0	4
	3. Skill Enhancement Courses (S) (2 Courses)		20CEE621T 20CEE622T	Automation in Construction Management Construction Equipment and Automation				
Course			20CEE623T	Quality and Safety Management	4	0	0	4
Code	Title L	T P C	20CEE6241 20CEE625J	BIM in Construction Management	3	0	2	
20GNS501J	Research Publishing and Presenting Skills 1	0 2 2	20CEE626T	Infrastructure and Real Estate Management	4	0	0	4
20CES501J	Total Learning Credits	<u> </u>	20022071	Engineering				
				Total Learning Credit	s			20
	5. Project Work. Internship In			4. Open Elective Courses (O)				
0	Industry / Higher Technical Institutions (P)		Course	(Any 1 Course) Course	Ηοι	urs/ W	eek	
Course	Title L	T P C	Code	Title	L	T	P	C
20CEP601L	nternship (4-6 weeks during 2 nd sem vacation)	,	MBS	Industrial Safety	3	0	0	3
20CEP602L	or Minor Proiect 0	0 8 4	MA	Operations Research (Maths)	3	0	0	3
20CEP603L	Project Work Phase I 0	0 12 6	MBA Nano	Cost Management Composite Materials	3	0	0	3
20CEP604L	Project Work Phase II 0 Total Learning Credits	0 32 16 26	20CEO531T	Waste to Energy	3	0	0	3
	· · · · · · · · · · · · · · · · · · ·		20CEP6201	MOOC Total Learning Credit	s -	<u> </u>	-	3
			_	C. A.,		_		
	7. Mandatory Courses (M)			(Any 2 Courses)				
Course	Course Hou	rs/Week	Course	Course	Ηοι	irs/ W	leek	C
Code	Title L	T P C	20CEA531J	Disaster Management	1	0	г 1	0
	Career Advancement for Engineers – 2 1	0 1 0	EFL	Constitution of India	1	0	1	0
	Career Advancement for Engineers – 3 1	0 1 0	CARE	Physical and Mental Health using Yoga	1	0	1	0
7 Imple	mentation Plan							
7. mpic								
				- · ·				
				Semester - II	Hou	irs/ W	/eek	•
	Semester - I	re/Week	Code	Semester - II Course Title	Hou	irs/ W	^{/eek}	С
Code	Semester - I Course Title	rs/Week TPC	Code 20CEC616T	Semester - II Course Title Construction Economics and Financial Management	Hou L 4	ırs/ W T 0	^{/eek} P 0	C 4
Code 20CEC516J 20CEC517J	Semester - I Course Title Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3	rs/Week TPC 024 024	Code 20CEC616T 20CEE616T	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction	Hou L 4	ırs/W T 0	P 0	C 4
Code 20CEC516J 20CEC517J 20CEC518T	Semester - I Course Title Hou L 2000 - 2000	rs/Week T P C 0 2 4 0 2 4 0 0 4	Code 20CEC616T 20CEE616T 20CEE617T 20CEE618T	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations	Hou L 4	Jrs/ W T 0	leek P 0 0	C 4 4
Code 20CEC516J 20CEC517J 20CEC518T 20MAE502T	Semester - I Course Title Construction Planning, Scheduling and Control Construction Materials and Concrete Design Modernistic Approaches in Construction management Statistical Methods for Engineers 3	rs/Week T P 0 2 4 0 2 4 0 0 4 1 0	Code 20CEC616T 20CEE616T 20CEE617T 20CEE619T 20CEE619T	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction	Hou L 4	Jrs/W T 0 0	P 0 0	C 4 4
Code 20CEC516J 20CEC517J 20CEC518T 20CEC518T 20MAE502T 20CEE516T	Semester - I Course Title How Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3 Modernistic Approaches in Construction management 4 Statistical Methods for Engineers 3 Construction Personnel Management 4	rs/Week C T P C 0 2 4 0 2 4 0 0 4 1 0 0 0 0 4	Code 20CEC616T 20CEE616T 20CEE617T 20CEE618T 20CEE619T 20CEE620T 20CEE620T	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction Energy Efficient Buildings Automation in Construction Management	Hou L 4 4	urs/ W T 0 0	leek P 0 0	C 4 4
Code 20CEC516J 20CEC517J 20CEC518T 20MAE502T 20CEE516T 20CEE517T 20CES501J	Semester - I Course Title Hou Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3 Modernistic Approaches in Construction management 4 Statistical Methods for Engineers 3 Construction Personnel Management 4 Research Publishing and Presenting Skills 1	rs/Week C T P C 0 2 4 0 2 4 0 0 4 1 0 0 0 0 4 0 0 2	Code 20CEC616T 20CEE616T 20CEE617T 20CEE617T 20CEE619T 20CEE620T 20CEE620T 20CEE622T 20CEE622T	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction Energy Efficient Buildings Automation in Construction Management Equipment Management Quality and Sofety	Hou L 4 4 4	urs/ W T 0 0	P 0 0 0	C 4 4
Code 20CEC516J 20CEC517J 20CEC518T 20MAE502T 20CEE516T 20CEE517T 20GNS501J	Semester - I Course Title Hou Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3 Modernistic Approaches in Construction management 4 Statistical Methods for Engineers 3 Construction Personnel Management 4 Resource Management 4 Research Publishing and Presenting Skills 1 Career Advancement for Engineers – 1 1	rs/Week C T P C 0 2 4 0 0 4 1 0 4 0 0 4 0 0 4 0 0 4 0 0 4 0 1 0 0 2 2 0 1 0	Code 20CEC616T 20CEE616T 20CEE617T 20CEE619T 20CEE629T 20CEE621T 20CEE622T 20CEE622T 20CEE623T 20CEE624T	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction Energy Efficient Buildings Automation in Construction Management Equipment Management Quality and Safety Advanced Project Management Concepts	Hou L 4 4 4 4	urs/ W T 0 0 0	P 0 0 0 0	C 4 4 4 4
Code 20CEC516J 20CEC517J 20CEC518T 20MAE502T 20CEE516T 20CEE517T 20GNS501J	Semester - I Course Title Hou Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3 Modernistic Approaches in Construction management 4 Statistical Methods for Engineers 3 Construction Personnel Management 4 Research Publishing and Presenting Skills 1 Career Advancement for Engineers – 1 1 Audit Course - 1 1 Total Learning Credits 1	rs/Week C 0 2 4 0 2 4 0 0 4 1 0 4 0 0 4 0 0 4 0 1 0 0 1 0 0 1 0 0 1 0 1 0 1 0 1 0 0 1 0	Code 20CEC616T 20CEE616T 20CEE617T 20CEE619T 20CEE619T 20CEE620T 20CEE620T 20CEE622T 20CEE623T 20CEE624T 20CEE624T	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction Energy Efficient Buildings Automation in Construction Management Equipment Management Quality and Safety Advanced Project Management Concepts Research Methods in Civil Engineering Corner Advancement for Engineering	Hou L 4 4 4 4 4 2	ırs/ W T 0 0 0 0	Veek P 0 0 0 0 0 0 2 1	C 4 4 4 4 3 0
Code 20CEC516J 20CEC517J 20CEC518T 20MAE502T 20CEE516T 20CEE517T 20GNS501J	Semester - I Course Title Hou Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3 Modernistic Approaches in Construction 4 Statistical Methods for Engineers 3 Construction Personnel Management 4 Resource Management Research Publishing and Presenting Skills 1 Career Advancement for Engineers – 1 1 Audit Course - 1 1 1 Total Learning Credits 1	rs/Week C T P C 0 2 4 0 0 4 1 0 0 0 0 4 0 0 4 0 0 4 0 1 0 0 1 0 0 1 0 0 1 0	Code 20CEC616T 20CEE616T 20CEE617T 20CEE619T 20CEE620T 20CEE620T 20CEE621T 20CEE621T 20CEE623T 20CEE623T 20CE501J	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction Energy Efficient Buildings Automation in Construction Management Equipment Management Quality and Safety Advanced Project Management Concepts Research Methods in Civil Engineering Career Advancement for Engineers – 2 Audit Course - 1	Hou L 4 4 4 4 2 1 1	urs/ M T 0 0 0 0 0 0 0	P 0 0 0 0 0 0 1	C 4 4 4 4 3 0 0
Code 20CEC516J 20CEC517J 20CEC518T 20CEC518T 20CEE516T 20CEE516T 20CEE517T 20GNS501J	Semester - I Course Title Hou Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3 Modernistic Approaches in Construction management 4 Statistical Methods for Engineers 3 Construction Personnel Management 4 Resource Management 4 Research Publishing and Presenting Skills 1 Career Advancement for Engineers – 1 1 Audit Course - 1 1 Total Learning Credits	rs/Week C T P C 0 2 4 0 0 4 1 0 4 0 0 4 0 0 4 0 1 0 0 1 0 0 1 0 0 1 0 0 1 18	Code 20CEC616T 20CEE616T 20CEE617T 20CEE619T 20CEE620T 20CEE621T 20CEE621T 20CEE621T 20CEE623T 20CEE623T	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction Energy Efficient Buildings Automation in Construction Management Equipment Management Quality and Safety Advanced Project Management Concepts Research Methods in Civil Engineering Career Advancement for Engineers – 2 Audit Course - 1 Total Learning Credit	Hou L 4 4 4 2 1 1 5	urs/ W T 0 0 0 0 0 0 0	P 0 0 0 0 0 2 1 1	C 4 4 4 4 4 3 0 0 0 19
Code 20CEC516J 20CEC517J 20CEC518T 20MAE502T 20CEE516T 20CEE517T 20GNS501J	Semester - I Course Title How Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3 Modernistic Approaches in Construction 4 management 4 Statistical Methods for Engineers 3 Construction Personnel Management 4 Resource Management 1 Audit Course - 1 1 Total Learning Credits	rs/Week C T P C 0 2 4 0 0 4 1 0 0 0 0 4 0 0 4 0 0 4 0 1 0 0 1 0 0 1 0 18 rs/Week	Code 20CEC616T 20CEE616T 20CEE617T 20CEE619T 20CEE620T 20CEE620T 20CEE622T 20CEE622T 20CEE624T 20CEE624T	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction Automation in Construction Management Equipment Management Quality and Safety Advanced Project Management Concepts Research Methods in Civil Engineering Career Advancement for Engineers – 2 Audit Course - 1	Hou L 4 4 4 4 2 1 1 5	urs/ W T 0 0 0 0 0 0	Veek P 0 0 0 0 0 2 1 1	C 4 4 4 4 3 0 0 0 19
Code 20CEC516J 20CEC517J 20CEC518T 20MAE502T 20CEE516T 20CEE517T 20GNS501J	Semester - I Course Title Hou Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3 Modernistic Approaches in Construction 4 Statistical Methods for Engineers 3 Construction Personnel Management 4 Resource Management 1 Research Publishing and Presenting Skills 1 Career Advancement for Engineers – 1 1 Audit Course - 1 1 Total Learning Credits 1 Semester - III Course Title Hou	rs/Week C T P C 0 2 4 0 0 4 1 0 4 0 0 4 0 0 4 0 0 4 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0	Code 20CEC616T 20CEE616T 20CEE617T 20CEE619T 20CEE620T 20CEE620T 20CEE622T 20CEE623T 20CEE623T 20CEE623T	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction Energy Efficient Buildings Automation in Construction Management Equipment Management Quality and Safety Advanced Project Management Concepts Research Methods in Civil Engineering Career Advancement for Engineers – 2 Audit Course - 1 Total Learning Credit	Hou L 4 4 4 4 2 1 1 5	urs/ W T 0 0 0 0 0	P 0 0 0 0 2 1 1	C 4 4 4 4 3 0 0 0 19
Code 20CEC516J 20CEC518T 20CEC518T 20CEE516T 20CEE517T 20CEE517T 20GNS501J	Semester - I Course Title How Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3 Modernistic Approaches in Construction 4 management 4 Statistical Methods for Engineers 3 Construction Personnel Management 4 Research Publishing and Presenting Skills 1 Career Advancement for Engineers – 1 1 Audit Course - 1 1 Total Learning Credits 1 Semester - III ElM in Construction Management 1 Infrastructure and Real Estate Management 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Code 20CEC616T 20CEE616T 20CEE617T 20CEE619T 20CEE620T 20CEE621T 20CEE622T 20CEE623T 20CEE624T 20CE501J	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction Energy Efficient Buildings Automation in Construction Management Equipment Management Quality and Safety Advanced Project Management Concepts Research Methods in Civil Engineering Career Advancement for Engineers – 2 Audit Course - 1 Total Learning Credit	Hou L 4 4 4 2 1 1 5	urs/ W T 0 0 0 0 0	P 0 0 0 0 2 1 1	C 4 4 4 4 3 0 0 19
Code 20CEC516J 20CEC518T 20MAE502T 20CEE516T 20CEE517T 20CEE517T 20CE501J 0 Code 20CEE625J 20CEE625J 20CEE625T	Semester - I Course Title How Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3 Modernistic Approaches in Construction 4 Statistical Methods for Engineers 3 Construction Personnel Management 4 Research Publishing and Presenting Skills 1 Audit Course - 1 1 Audit Course - 1 1 Total Learning Credits 1 BIM in Construction Management 3 Infrastructure and Real Estate Management 3 Building Rehabilitation and Forensic 4	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Code 20CEC616T 20CEE616T 20CEE619T 20CEE620T 20CEE620T 20CEE622T 20CEE623T 20CEE623T 20CE501J	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction Energy Efficient Buildings Automation in Construction Management Equipment Management Quality and Safety Advanced Project Management Concepts Research Methods in Civil Engineering Career Advancement for Engineers – 2 Audit Course - 1 Total Learning Credit	Hou L 4 4 4 2 1 1 5	Urs/ W T 0 0 0 0 0 0 0 0	reek P 0 0 0 2 1 1 1	C 4 4 4 4 4 4 4 19 19 19 19 19 19 19 19 19 19 19 19 19
Code 20CEC516J 20CEC518T 20CEC518T 20CEC518T 20CEE516T 20CEE517T 20CEE517T 20CES517T 20CEC517T 20CEC5251 20CEE625J 20CEE625J 20CEE625T 20CEE625T	Semester - I Course Title Hou Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3 Modernistic Approaches in Construction 4 Statistical Methods for Engineers 3 Construction Personnel Management 4 Resource Management 4 Research Publishing and Presenting Skills 1 Career Advancement for Engineers – 1 1 Audit Course - 1 1 Total Learning Credits 1 Semester - III Hou L BIM in Construction Management 3 Infrastructure and Real Estate Management 3 Building Rehabilitation and Forensic 3 Ingineering 9 Open Elective or 3	rs/ Week C T P 0 2 0 2 0 0 1 0 0 0 4 0 0 0 4 0 0 0 4 0 0 0 4 0 0 2 0 1 0 1 0 1 0 1 0 2 0 2 0 2 0 4	Code 20CEC616T 20CEE616T 20CEE619T 20CEE620T 20CEE620T 20CEE622T 20CEE622T 20CEE622T 20CEE624T 20CES501J	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction Energy Efficient Buildings Automation in Construction Management Equipment Management Quality and Safety Advanced Project Management Concepts Research Methods in Civil Engineering Career Advancement for Engineers – 2 Audit Course - 1 Total Learning Credit Semester - IV Course Title	Hou L 4 4 4 2 1 1 5	urs/ W T 0 0 0 0 0 0 0	P 0 0 0 0 2 1 1 1	C 4 4 4 4 4 4 0 0 0 19 0 0
Code 20CEC516J 20CEC517J 20CEC518T 20CEE516T 20CEE516T 20CEE517T 20GNS501J 20CEE625J 20CEE625J 20CEE625J 20CEE626T 20CEE627T	Semester - I Course Title How Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3 Modernistic Approaches in Construction 4 management 4 Statistical Methods for Engineers 3 Construction Personnel Management 4 Research Publishing and Presenting Skills 1 Career Advancement for Engineers – 1 1 Audit Course - 1 1 Total Learning Credits 1 Semester - Ill L BIM in Construction Management 3 Infrastructure and Real Estate Management 4 Building Rehabilitation and Forensic 3 Engineering 0 Open Elective or 3 MOOC -	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Code 20CEC616T 20CEE616T 20CEE619T 20CEE629T 20CEE621T 20CEE621T 20CEE621T 20CEE621T 20CEE621T 20CEE621T 20CEE621T 20CEE501J	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction Energy Efficient Buildings Automation in Construction Management Equipment Management Quality and Safety Advanced Project Management Concepts Research Methods in Civil Engineering Career Advancement for Engineers – 2 Audit Course - 1 Total Learning Credit Semester - IV Course Title Project Work Phase II Total Learning Credit	Hou L 4 4 4 4 2 1 1 5 8	Irs/ W T 0 0 0 0 0 0 0 0 0	Veek P 0 0 0 0 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	C 4 4 4 4 3 0 0 19 19 C 16 16
Code 20CEC516J 20CEC517J 20CEC518T 20MAE502T 20CEE516T 20CEE517T 20GNS501J 20CEE6217T 20CEE625J 20CEE625J 20CEE627T 20CEE627T 20CEP620T 20CEP601L	Semester - I Course Title How Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3 Modernistic Approaches in Construction 4 management 4 Statistical Methods for Engineers 3 Construction Personnel Management 4 Resource Management 1 Research Publishing and Presenting Skills 1 Career Advancement for Engineers – 1 1 Audit Course - 1 1 Total Learning Credits 1 Total Learning Credits BIM in Construction Management BIM in Construction Management 3 Infrastructure and Real Estate Management 4 Building Rehabilitation and Forensic 3 Engineering 3 Open Elective or 3 MOOC - Internship (4-6 weeks during 2 nd Sem vacation) -	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Code 20CEC616T 20CEE616T 20CEE617T 20CEE619T 20CEE620T 20CEE621T 20CEE621T 20CEE623T 20CEE624T 20CES501J	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction Energy Efficient Buildings Automation in Construction Management Equipment Management Quality and Safety Advanced Project Management Concepts Research Methods in Civil Engineering Career Advancement for Engineers – 2 Audit Course - 1 Total Learning Credit Semester - IV Course Title Project Work Phase II Total Learning Credit	Hou L 4 4 4 1 1 5 5	Irs/ W T 0 0 0 0 0 0 0 0	Veek P 0 0 0 0 2 1 1 1	C 4 4 4 4 4 3 0 0 19 19 C C 16 16
Code 20CEC516J 20CEC518T 20CEC518T 20MAE502T 20CEE516T 20CEE517T 20GNS501J 20CEE625J 20CEE625J 20CEE625J 20CEE625T 20CEE622T 20CEE620T 20CEP601L 20CEP602L	Semester - I Course Title Hou Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3 Modernistic Approaches in Construction 4 Statistical Methods for Engineers 3 Construction Personnel Management 4 Resource Management 4 Research Publishing and Presenting Skills 1 Career Advancement for Engineers – 1 1 Audit Course - 1 1 Total Learning Credits 1 Semester - III BIM in Construction Management 3 Infrastructure and Real Estate Management 3 Building Rehabilitation and Forensic 3 Ingineering 3 Open Elective or 3 MOOC - Internship (4-6 weeks during 2 nd Sem vacation) - or 0 Denic UM of Project 0	$\begin{array}{c cccc} rs/ \ \ Veek}{T & P} & C \\ \hline 0 & 2 & 4 \\ \hline 0 & 2 & 4 \\ \hline 0 & 0 & 4 \\ \hline 0 & 0 & 4 \\ \hline 1 & 0 & \\ 0 & 0 & 4 \\ \hline 0 & 2 & 2 \\ \hline 0 & 1 & 0 \\ \hline 0 & 0 & 4 \\ \hline 0 & 0 & 0 \\ \hline 0 & 0 \\ \hline 0 & 0 & 0 \\ \hline 0 & 0 & 0 \\ \hline 0 & 0 & 0 \\$	Code 20CEC616T 20CEE616T 20CEE617T 20CEE619T 20CEE620T 20CEE623T 20CEE623T 20CEE623T 20CEE501J 20CES501J Code 20CEP604L	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction Energy Efficient Buildings Automation in Construction Management Equipment Management Quality and Safety Advanced Project Management Concepts Research Methods in Civil Engineering Career Advancement for Engineers – 2 Audit Course - 1 Total Learning Credit Semester - IV Course Title Project Work Phase II Total Learning Credit	Hou L 4 4 4 2 1 1 5 S	Irs/ W T 0 0 0 0 0 0 0 0	Veek P 0 0 0 2 1 1 1 1 1 1	C 4 4 4 4 4 4 0 0 19 19 C C 16 16
Code 20CEC516J 20CEC517J 20CEC518T 20CEC518T 20CEE516T 20CEE517T 20GNS501J 20CEE625J 20CEE625J 20CEE625J 20CEE627T 20CEP602L 20CEP603L	Semester - I Course Title Hou Construction Planning, Scheduling and Control 3 Construction Materials and Concrete Design 3 Modernistic Approaches in Construction 4 Statistical Methods for Engineers 3 Construction Personnel Management 4 Resource Management 4 Research Publishing and Presenting Skills 1 Career Advancement for Engineers – 1 1 Audit Course - 1 1 Total Learning Credits 1 Total Learning Credits Blim in Construction Management Jinfrastructure and Real Estate Management 3 Building Rehabilitation and Forensic 3 Engineering 4 Open Elective or 3 MOOC - Internship (4-6 weeks during 2 nd Sem vacation) - or - 1 Minor Project 0 0 Project Work Phase I 0 0 Career Advancement for Engineers – 3 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Code 20CEC616T 20CEE616T 20CEE619T 20CEE619T 20CEE621T 20CEE622T 20CEE622T 20CEE622T 20CEE624T 20CES501J	Semester - II Course Title Construction Economics and Financial Management Quantitative Analysis in Construction Advanced Construction Methods Contract Laws and Regulations Temporary Structures in Construction Energy Efficient Buildings Automation in Construction Management Equipment Management Quality and Safety Advanced Project Management Concepts Research Methods in Civil Engineering Career Advancement for Engineers – 2 Audit Course - 1 Total Learning Credit Semester - IV Course Title Project Work Phase II Total Learning Credit	Hou L 4 4 4 2 1 1 5 5	Irs/ W T 0 0 0 0 0 0 0 0 0 0	eek P 0 0 0 2 1 1 1	C 4 4 4 4 4 3 0 0 19 19 C 16 16

8. Prog	ram Articulation Matrix															
		Programme Learning Outcomes														
Course Code	Course Name	Disciplinary Knowledge	Critical Thinking	Problem Solving	ualytical Reasoning	Research Skills	eam Work	scientific Reasoning	Reflective Thinking	self-Directed Learning	Aulticultural Competence	thical Reasoning	Community Engagement	CT Skills	eadership Skills.	ife Long Learning
20CEC516J	Construction Planning and Scheduling	Н	Н	H	H	M	M	H	M	L	L	Н	L	M	H	H
20CEC517J	Construction Materials and Concrete Design	Н	Н	Н	Н	М	М	Н	М	М	L	Н	L	М	Н	Н
20CEC518T	Modernistic Approaches in Construction management	Н	Н	Н	Н	Н	L	Н	М	L	L	Н	L	Н	Н	Η
20CEC616T	Construction Economics and Financial Management	Н	Н	Н	Н	М	М	Н	Н	М	L	Н	L	L	Н	Н
20MAE502T	Statistical Methods for Engineers															
20CEE516T	Construction Personnel Management	Н	Н	Н	Н	М	М	Н	Н	L	L	Н	L	L	Н	Η
20CEE517T	Resource Management	Н	Н	Н	Н	М	М	Н	Н	L	L	Н	L	L	Н	Н
20CEE616T	Quantitative Analysis in Construction	Н	Н	Н	Н	М	М	Н	Н	L	L	Н	L	L	М	Н
20CEE617T	Advanced Construction Methods	Η	Н	Н	Н	М	М	Η	Н	L	L	Н	L	L	Η	H
20CEE618T	Contract Laws and Regulations	Н	Н	Н	Н	М	М	Н	Н	L	L	Н	L	L	Н	Н
20CEE619T	Temporary Structures in Construction	Н	Н	Н	Н	М	М	Н	Н	L	L	Н	L	L	М	Н
20CEE620T	Energy Efficient Buildings	Н	Н	Н	Н	Н	М	Н	Н	L	L	Н	L	L	М	Н
20CEE621T	Automation in Construction Management	Н	М	М	Н	Н	М	Н	Н	L	L	Н	L	L	М	Н
20CEE622T	Equipment Management	Н	Н	Н	Н	М	М	Н	Н	L	L	Н	L	L	М	Н
20CEE623T	Quality and Safety	Н	Н	Н	Н	М	М	Н	Н	L	L	Н	L	L	М	Н
20CEE624T	Advanced Project Management Concepts	Η	Н	Н	Н	М	М	Η	Н	L	L	Н	L	L	M	H
20CEE625J	BIM in Construction Management	Н	Н	Н	Н	Н	М	Н	Н	М	L	Н	L	L	М	Н
20CEE626T	Infrastructure and Real Estate Management	Н	Н	Н	Н	Н	М	Н	Н	М	L	Н	L	L	М	Н
20CEE627T	Building Rehabilitation and Forensic Engineering	Н	Н	Н	Н	Н	М	Н	Н	М	L	Н	L	L	М	Η
20GNS501J	Research Publishing and Presenting Skills															
20CES501J	Research Methods in Civil Engineering															
	Business Analytics Industrial Safety															
	Operations Research															
	Cost Management															
	Composite Materials															
20CEO531T	Waste to Energy															
20CEP620T	моос	М	М	М	М	М	L	М	L	М	М	L	L	L	М	L
20CEP601L	Internship (4-6 weeks)	М	М	М	М	М	L	L	L	М	М	L	L	LM	М	L
20CEP602L	Minor Project	М	М	М	М	М	L	L	М	М	L	L	М	М	М	L
20CEP603L	Project Work Phase I	Н	Н	Н	Н	Н	М	М	Н	М	М	Н	Н	М	М	М
20CEP604L	Project Work Phase II	Н	Н	Н	Н	Н	М	М	Н	М	М	Н	Н	М	М	М
20CEA531J	Disaster Management															
	Teaching and Learning															
	Personality Development															
	Constitution of India															
	Value Education															
	Physical and Mental Health using Yoga															
	Career Advancement for Engineers – 1															
	Career Advancement for Engineers – 2															
	Career Advancement for Engineers – 3															
	Program Average															

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