1. Programme Structure (70 Total Credits)

1. Professional Core Courses (C)
(5 Courses)

Course Code	Course Title	L	T	P	C
20CEC501T	Matrix Computer Method of Structural Analysis	3	1	0	4
20CEC502T	Structural Dynamics	4	0	0	4
20CEC503T	Theory of Elasticity and Plasticity	3	1	0	4
20CEC504J	Finite element method with computer application	3	0	2	4
20CEC505T	Advanced Steel structures	3	1	0	4
Total Learning Credits					**20**

3. Skill Enhancement Courses (S)
(2 Courses)

Course Code	Course Title	L	T	P	C
20GNS501J	Research Publishing and Presenting Skills	1	0	2	2
20CES501J	Research Methods in Civil Engineering	2	0	2	3
Total Learning Credits					**5**

2. Professional Elective Courses (E)
(5 Courses)

Course Code	Course Title	L	T	P	C
20MAE501T	Applied Mathematics	3	1	0	4
20CEE501J	Advanced Reinforced Concrete Structures	3	0	2	4
20CEE502T	Aseismic design of structures	4	0	0	4
20CEE503T	Stability of Structures	4	0	0	4
20CEE504T	Mechanics of Structural Composite Materials	3	1	0	4
20CEE505T	Concrete Technology & Special Concretes	4	0	0	4
20CEE506T	Maintenance and Rehabilitation of Structures	4	0	0	4
20CEE507T	Prestressed Concrete Structures	3	1	0	4
20CEE601T	Design of Steel-Concrete Composite Structures	3	1	0	4
20CEE602T	Offshore Structures	4	0	0	4
20CEE603T	Experimental Techniques and Instrumentation	3	1	0	4
20CEE604T	Design of Reinforced Concrete Foundations	3	1	0	4
20CEE605T	Design of Bridges	3	1	0	4
20CEE606T	Design of Tall Buildings	4	0	0	4
20CEE607T	Analysis and Design of Structural Sandwich Panels	3	1	0	4
20CEE608T	Advanced Analysis and Design for Wind Earthquake and other Dynamic Loads	3	1	0	4
20CEE609T	Design of Shell and Folded Plate Structures	3	1	0	4
20CEE610T	Computer Aided Design and Programming	3	1	0	4
20CEE611T	Ancient Building Materials and Additives in the Conservation of Heritage Structures	4	0	0	4
20CEE612T	Seismic retrofit of buildings	4	0	0	4
20CEE613T	Disaster Resistant Structures	4	0	0	4
Total Learning Credits					**16**

5. Project Work, Internship In Industry / Higher Technical Institutions MOOC / Professional Elective (P)

Course Code	Course Title	L	T	P	C
20CEP601L	Internship (4-6 weeks)	0	0	8	4
20CEP602L	Minor Project	0	0	12	6
20CEP603L	Project Work Phase I	-	-	-	
20CEP604L	Project Work Phase I I	0	0	32	16
20CEP605L	Semester Internship Phase II (15 weeks)	-	-	-	
Total Learning Credits					**26**

4. Open Elective Courses (O)
(Any 1 Course)

Course Code	Course Title	L	T	P	C
MBS	Business Analytics	3	0	0	3
ME	Industrial Safety	3	0	0	3
MA	Operations Research	3	0	0	3
MBA	Cost Management	3	0	0	3
NANO	Composite Materials	3	0	0	3
20CEO531T	Waste to Energy	3	0	0	3
20CEP620T	MOOC	3	0	0	3
Total Learning Credits					**3**

6. Audit Courses (M)
(2 Courses)

Course Code	Course Title	L	T	P	C
20CEA531J	Disaster Management	1	0	1	0
EFL	Constitution of India	1	0	1	0
EFL	Value Education	1	0	1	0
CARE	Physical and Mental Health using Yoga	1	0	1	0

7. Mandatory Courses (M)
(3 Courses)

Course Code	Course Title	L	T	P	C
20PDM501T	Career Advancement for Engineers – 1	1	0	1	0
20PDM502T	Career Advancement for Engineers – 2	1	0	1	0
20PDM601T	Career Advancement for Engineers – 3	1	0	1	0

Replace as appropriate i.e., Research Methods in Electrical Sciences / Mechanical Sciences etc.,

2. Implementation Plan

Semester - I

Code	Course Title	L	T	P	C
20CEC501T	Matrix Computer Method of Structural Analysis	3	1	0	4
20CEC502T	Structural Dynamics	4	0	0	4
20CEC503T	Theory of Elasticity and Plasticity	3	1	0	4
20MAE501T	Applied Mathematics	4	0	0	4
20CEE502T	Aseismic design of structures				
20CEE503T	Stability of Structures				
20CEE505T	Concrete Technology & Special Concretes				
20CEE506T	Maintenance and Rehabilitation of Structures				
20CEE504T	Mechanics of Structural Composite Materials	3	1	0	
20CEE507T	Prestressed Concrete Structures				
20CEE501J	Advanced Reinforced Concrete Structures	3	0	2	
CARE	Research Publishing and Presenting Skills	1	0	2	2
20PDM501T	Career Advancement for Engineers – 1	1	0	1	0
	Audit Course - 1	1	0	1	0
	Total Learning Credits				**18**

Semester - II

Code	Course Title	L	T	P	C
20CEC504J	Finite element method with computer application	3	0	2	4
20CEC505T	Advanced Steel structures	3	1	0	4
20CEE601T	Design of Steel-Concrete Composite Structures	3	1	0	4
20CEE602T	Offshore Structures	4	0	0	
20CEE603T	Experimental Techniques and Instrumentation	3	1	0	
20CEE604T	Design of reinforced concrete foundations				
20CEE605T	Design of Bridges	3	1	0	4
20CEE606T	Design of Tall Buildings	4	0	0	
20CEE608T	Advanced Analysis and Design for Wind Earthquake and other Dynamic Loads	3	1	0	
20CEE613J	Disaster Resistant Structures	4	0	0	
20CES501J	Research Methods in Civil Engineering	1	0	2	2
20PDM502T	Career Advancement for Engineers – 2	1	0	1	0
	Audit Course - 1	1	0	1	0
	Total Learning Credits				**18**

Semester - III

Code	Course Title	L	T	P	C
	Open Elective	3	0	0	3
20CEP620T	MOOC				
20CEE607T	Analysis and Design of Structural Sandwich Panels	3	1	0	4
20CEE609T	Design of Shell and Folded Plate Structures				
20CEE610T	Computer Aided Design and Programming				
20CEE611T	Ancient Building Materials and Additives in the Conservation of Heritage Structures	4	0	0	
20CEE612T	Emerging technology in Structural Engineering				
20CEP601L	Internship (4-6 weeks) / Minor Project	-	-	10	5
20CEP602L	Project Phase I	-	-	12	6
20CEP603L	Semester Internship I (8 weeks)	-	-	-	
20PDM601T	Career Advancement for Engineers – 3	1	0	1	0
	Total Learning Credits				**18**

Semester - IV

Code	Course Title	L	T	P	C
20CEP604L	Project Work Phase I I	0	0	32	16
20CEP605L	Semester Internship Phase II (15 weeks)	-	-	-	
	Total Learning Credits				**16**