## 02 Yr M.Tech. Programme (Geotehnical and Geoenviornmental Engineering) with CBCS

SEMESTER I					
Sr. No.	Subject Code	Courses	L-T-P	Credits	
		THEORY			
1.		General Elective	3-1-0	4	GE1
2.	CE641	Engineering Behaviour of Soil	2-1-0	3	C1
3.	CE643	Site Investigation and Foundation Design	2-1-0	3	C2
4.	CE645	Ground Improvement and Geosynthetics	2-1-0	3	C3
5.		Elective-I	2-1-0	3	DSE1
6.		Open Elective	3-0-0	3	OE1
		PRACTICALS			
7.	CE653	Soil Engineering Lab	0-0-3	2	C4
8.	CE611	Seminar	0-0-3	2	SEC1
9.	GP	General Proficiency		Non-Credit	
		Total	14-5-6	23	
		Total Contact Hours		25	

#### **Elective-I**

- 1. CE647: Finite Elements Method in Geotechnical Engineering
- 2. CE649: Soil Dynamics and Earthquake Geotechnical Engineering

#### **General Elective**

- 1. MA 406 Operation Research
- 2. MA 507 Optimization Techniques
- 3. MA402 Modelling and Simulation

#### **Open Elective**

Courses offered from other school

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		SEMESTER II			
Sr. No.	Subject Code	Courses	L-T-P	Credits	
		<b>THEORY</b>			
1.	CE642	Slopes and Retaining Structures	3-1-0	4	C5
2.	CE644	Soil-Structure Interaction Analysis	2-1-0	3	C6
3.	CE646	Geotechnology of Waste Disposal Facilities	3-1-0	4	C7
4.	CE648	Offshore Geotechnical Engineering	3-1-0	4	C8
5.		Specialization Elective-I	3-1-0	4	DSE2
		PRACTICALS			
7.	CE656	Geoenviornmental and Geotechnical Engg Lab	0-0-3	2	C9
8.	CE616	Project	0-0-10	5	DP1
9.	GP	General Proficiency		Non- Credit	
		Total	14-5-13	26	
		Total Contact Hours		32	

### **Specialization Elective-I (DSE 2)**

1. CE652: Constitutive Modelling in Geotechnics

2. CE654: Earthquake Design of Resistant Structure

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SEMESTER III					
Sr. No.	Subject Code	Courses	L-T-P	Credits	
		THEORY			
1.	CE741	Emerging Topics in Geotechnical Engineering	2-1-0	3	C10
2.	CE743	Advanced Soil Mechanics	3-1-0	4	C11
3.		Specialization Elective-II	3-1-0	4	DSE3
		PRACTICALS			
4.	CE617	Dissertation Part-I	2-0-16	8	DP2
5.	GP	General Proficiency		Non-Credit	
		Total	10-3-16	19	
		Total Contact Hours		29	

### **Specialization Elective-II (DSE3)**

1. CE745: Fracture Mechanics

2. CE747: Rock Mechanics and Tunnelling

		SEMESTER IV			
Sr. No.	Subject Code	Courses	L-T-P	Credits	
		THEORY			
1.	CE720	Dissertation Part-II	2-0-16	22	DP3
2.	GP	General Proficiency	-	Non-Credit	
		Total		22	
		Total Contact Hours		-	

Grand Total Credits: 90