

Curriculum for M. Tech in Civil Engineering Department

# **Course Structure and Syllabus**

For

2 Year M. Tech Programme

In Geotechnical Engineering

w. e. f 2019-20

**Department of Civil Engineering** 

**Aliah University** 

II A/27, Newtown, Kolkata 700156,

West Bengal, India

Jefal Sadan + 08/03/19 1d 1 8.3.19

m #2

Htrem 3.2019

1000 3/V9

Sum 08/03/19

Norman Markin June 213/19

July 100 119

DO 3

Page **1** of **4** 



Curriculum for M. Tech in Civil Engineering Department

#### 2<sup>nd</sup> YEAR 3<sup>rd</sup> SEMESTER

Sl no	Paper code	Name of the paper	I	Credit			
			L	T	P	T *	V X
1	CE 691	Dissertation Part-I		-	-	-	12
2	CE 693	Viva-voce-I	-	-	-	-	2
		TOTAL CREDIT					14

## 2<sup>nd</sup> YEAR 4<sup>TH</sup> SEMESTER

Sl no	Paper code	Name of the paper	F	Credit			
			L	T	P	T	1
1	CE 692	Dissertation Part-II	-	-	-	-	12
2	CE 694	Viva-voce-II	-	-	-	-	4
		TOTAL CREDIT					16

Alo3/2019

Sum 3/19

hopma 3/3/1

(1. 1/2 03 03 1°

Atram 2.3.2019

Mosor

6000 R/2

Japan Sadan Ar 08/12/19

Wood 3/19

Page 3 of 4



Curriculum for M. Tech in Civil Engineering Department

#### **List of Electives:**

#### **Elective:-I**

- 1. Soil Structure Interaction
- 2. Analytical Geo mechanics
- 3. Reinforced Soil Structures
- 4. Seismic Design of Foundation

#### **Elective:-II**

- 1. Slope Stability and Earthen Dam
- 2. Retaining Structures and Underground Construction
- 3. Geotechnics for Highway Engineering
- 4. Application of FEM in Geotechnical Engineering

#### **Elective:-III**

- 1. Subsoil Investigation and Instrumentation
- 2. Design of Foundation in Expansive soil
- 3. Application of Smart Material in Geotechnical Engineering
- 4. Coastal and Offshore Geotechnology

#### **Elective:-IV**

- 1. Ground Improvement Techniques
- 2. Environmental Geo Technique
- 3. Rock Mechanics and Tunnelling
- 4. Uncertainty Analysis in Geotechnical Engineering

203/2019 A 203/2019

Jefor Sadar # 08/03) 19

Just 15 ha

Page 4 of 4

1, 10 m 1818/19

Bell 8 3



Curriculum for M. Tech in Civil Engineering Department

### 1<sup>st</sup> YEAR 1<sup>st</sup> SEMESTER

S. No.	Course code	Name of the course	Pe	Credit			
			L	T	P	T	
1	CE 601	Numerical Analysis	3	1	0	4	4
2	CE 611	Advanced Theory of Soil Mechanics	3	1	0	4	4
3	CE 613	Advanced Foundation Design	3	1	0	4	4
4	CE 615 (EI-I)	Elective-I	3	1	0	4	4
5	CE 617 (EI-II)	Elective-II	3	1	0	4	4
TOTAL PERIOD PER WEEK						20	
TOTAL CREDIT						20	

## 1st YEAR 2nd SEMESTER

Sl no	Paper code	Name of the paper	Pe	Credit			
			L	T	P	T	1
1	CE 612	Soil Dynamics and Machine Foundations	3	1	0	4	4
2	CE 614	Geotechnical Earthquake Engineering	3	1	0	4	4
3	CE 616 (El-III)	Elective-III	3	1	0	4	4
4	CE 618 (El-IV)	Elective-IV	3	1	0	4	4
5	CE 671	Seminar			2	2	2
6	CE 681	Soil Mechanics Lab			3	3	2
		TOTAL PERIOD PER WEEK			- F.	1	21
	u .	TOTAL CREDIT	).				20

Page **2** of **4**