



**ALIAH UNIVERSITY**  
Curriculum for M. Tech in Civil Engineering Department

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**Course Structure and Syllabus**

**For**

**2 Year M. Tech Programme**

**In Water Resources Engineering**

**w. e. f 2018-19**

**Department of Civil Engineering**

**Aliah University**

**II A/ 27, Newtown, Kolkata 700156,**

**West Bengal, India**

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

S. No.	Course code	Name of the course	Periods per week				Credit
			L	T	P	T	
1	CE 601	Numerical Analysis	3	1	0	4	4
2	CE 621	Advanced Hydraulic Structure	3	1	0	4	4
3	CE 623	Remote Sensing & GIS	3	1	0	4	4
4	CE 625 (EI-I)	Elective I	3	1	0	4	4
5	CE 627 (EI-II)	Elective II	3	1	0	4	4
<b>TOTAL PERIOD PER WEEK</b>							<b>20</b>
<b>TOTAL CREDIT</b>							<b>20</b>

## 1<sup>st</sup> YEAR 2<sup>nd</sup> SEMESTER

Sl no	Paper code	Name of the paper	Periods per week				Credit
			L	T	P	T	
1	CE 622	Water Resources Planning and Management	3	1	0	4	4
2	CE 624	River Engineering	3	1	0	4	4
3	CE 626 (EI-III)	Elective III	3	1	0	4	4
4	CE 628 (EI-IV)	Elective IV	3	1	0	4	4
5	CE 671	Seminar			2	2	2
6	CE 681	Water Resources Lab			3	3	2
<b>TOTAL PERIOD PER WEEK</b>							<b>21</b>
<b>TOTAL CREDIT</b>							<b>20</b>

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

Sl no	Paper code	Name of the paper	Periods per week				Credit
			L	T	P	T	
1	CE 691	Dissertation Part-I	-	-	-	-	12
2	CE 693	Viva-voce-I	-	-	-	-	2
<b>TOTAL CREDIT</b>							<b>14</b>

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

Sl no	Paper code	Name of the paper	Periods per week				Credit
			L	T	P	T	
1	CE 692	Dissertation Part-II	-	-	-	-	12
2	CE 694	Viva-voce-II	-	-	-	-	4
<b>TOTAL CREDIT</b>							<b>16</b>

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*Sunid*  
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*Mohsin Paul*  
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*Abala*  
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**List of Electives:**

**Elective-I**

1. Advanced Computing in Water Resource Engineering
2. Stochastic hydrology
3. Watershed Development and Management.
4. Soft-computing techniques in hydrology
5. Hydrological Analysis and Design

**Elective-II**

1. Hydropower System Planning
2. Flood forecasting
3. Climate Change and Water Resources

**Elective-III**

1. Application of Soft Computing in Water Resource Engineering
2. Irrigation and drainage engineering
3. Groundwater Development and Management.
4. Groundwater Hydrology
5. Water Resources System Reliability

**Electives IV**

1. Economics of Water Resource Planning
2. Rural Water Supply and Environmental Sanitation
3. Channel and fluvial hydraulics
4. Water and Land Laws

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