

**MTech. (Structural Engineering)**  
**Curriculum Structure & Syllabus**  
**2015 – 17 Batch**  
**(2015-16 Admission)**



**Professor & Head**  
**School of Civil & Environmental Engineering**  
**KLE Technological University**  
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**HUBBALLI-580 031**

**I Year Master of Technology (Structural Engineering)  
Curriculum Structure – 2015 Scheme**

Semester: I M.Tech.

S.No.	Code	Course	Categor	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEC701	Theory of Elasticity	PC	4-1-0	5	06	50	50	100	3 hours
2	15ESEC702	Theory of Plates and Shells	PC	4-1-0	5	06	50	50	100	3 hours
3	15ESEC703	Design of Special RC Structures	PC	4-1-0	5	06	50	50	100	3 hours
4	15ESEC704	Structural Dynamics	PC	4-1-0	5	06	50	50	100	3 hours
5	15ESEE701	Advanced Concrete Technology	PE	3-0-0	3	03	50	50	100	3 hours
	15ESEE702	Advanced Materials of Construction								
6	15ESEP701	CAAD Lab	PC	0-0-2	2	04	80	20	100	3 hours
7	15ESET701	Recent Topics on Technology Trends	PC	1-0-0	1	01	100	-	100	-
<b>TOTAL</b>				<b>20-4-2</b>	<b>26</b>	<b>32</b>				

**Note: L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project**

M.Tech. (Structural Engineering) Curriculum – 2015-17



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## Semester: II M.Tech. (Structural Engineering)

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEH701	Mathematical Thinking and Logical reasoning	PC	3-0-0	3	03	50	50	100	3 hours
2	15ECRC701	Principles and Practices of Engineering Education	PC	2-0-1	3	04	50	50	100	3 hours
3	15ESEC705	Finite Element Method	PC	4-1-0	5	06	50	50	100	3 hours
4	15ESEC706	Stability of Structures	PC	4-1-0	5	06	50	50	100	3 hours
5	15ESEE703	Design of Industrial Steel Structures	PE	4-0-0	4	04	50	50	100	3 hours
6	15ESEE704	Structural Reliability								
7	15ESEE705	Numerical Methods and Programming								
8	15ESEE706	Design of Foundations	PE	4-0-0	4	04	50	50	100	3 hours
9	15ESEE707	Structural Optimization								
<b>TOTAL</b>				<b>21-2-1</b>	<b>24</b>	<b>27</b>				

Note: L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project

**II Year Master of Technology (Structural Engineering)  
Curriculum Structure - 2016 Scheme**

**Semester: III M.Tech. (Structural Engineering)**

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEP801	Design Project	PC	2-0-2	4	06	50	50	100	3 hours
2	15ESEE801	Design of Bridges	PSE	<del>4-0-0</del>	4	04	50	50	100	3 hours
3	15ESEE802	Masonry Structures								
4	15ESEE803	Aseismic Design of Structures								
5	15ESEI801	Internship/Industrial Training	PW	0-0-2	2	02	50	50	100	3 hours
6	15ESEW801	Minor Project/Project Work Phase I*	PW	0-0-8	8	08	50	50	100	3 hours
<b>TOTAL</b>				<b>8-0-10</b>	<b>18</b>	<b>20</b>				

**Note: L - Lecture, T - Tutorial, P - Practical, ISA - In Semester Assessment, ESA - End Semester Assessment, PC-Programme Core, PE - Program Elective, PW - Project**



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**Semester: IV M.Tech. (Structural Engineering)**

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEW802	Major Project/Project Work Phase II*	PW	0-0-20	20	20	50	50	100	3 hours
<b>TOTAL</b>				<b>0-0-20</b>	<b>20</b>	<b>20</b>				

**Note: L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project**

\* 6 Weeks for Industrial training after the completion of III Semester SEE

\* Project Work Phase I and Phase II must be a Research Project

Minor Project is independent of Major Project



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# **MTech. (Structural Engineering)**

## **Curriculum Structure & Syllabus**

### **2016 – 18 Batch**

**(2016-17 Admission)**



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**I Year Master of Technological (Structural Engineering)  
Curriculum Structure – 2016 Scheme**

Semester: I M.Tech.

S.No.	Code	Course	Categor	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEC701	Theory of Elasticity	PC	4-1-0	5	06	50	50	100	3 hours
2	15ESEC702	Theory of Plates and Shells	PC	4-1-0	5	06	50	50	100	3 hours
3	15ESEC703	Design of Special RC Structures	PC	4-1-0	5	06	50	50	100	3 hours
4	15ESEC704	Structural Dynamics	PC	4-1-0	5	06	50	50	100	3 hours
5	15ESEE701	Advanced Concrete Technology	PE	3-0-0	3	03	50	50	100	3 hours
	15ESEE702	Advanced Materials of Construction								
6	15ESEP701	CAAD Lab	PC	0-0-2	2	04	80	20	100	3 hours
7	15ESET701	Recent Topics on Technology Trends	PC	1-0-0	1	01	100	-	100	-
<b>TOTAL</b>				<b>20-4-2</b>	<b>26</b>	<b>32</b>				

**Note: L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project**



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M.Tech. (Structural Engineering) Curriculum – 2016-18

  
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## Semester: II M.Tech. (Structural Engineering)

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEH701	Mathematical Thinking and Logical reasoning	PC	3-0-0	3	03	50	50	100	3 hours
2	15ECRC701	Principles and Practices of Engineering Education	PC	2-0-1	3	04	50	50	100	3 hours
3	15ESEC705	Finite Element Method	PC	4-1-0	5	06	50	50	100	3 hours
4	15ESEC706	Stability of Structures	PC	4-1-0	5	06	50	50	100	3 hours
5	15ESEE703	Design of Industrial Steel Structures	PE	4-0-0	4	04	50	50	100	3 hours
6	15ESEE704	Structural Reliability								
7	15ESEE705	Numerical Methods and Programming								
8	15ESEE706	Design of Foundations	PE	4-0-0	4	04	50	50	100	3 hours
9	15ESEE707	Structural Optimization								
<b>TOTAL</b>				<b>21-2-1</b>	<b>24</b>	<b>27</b>				

Note: L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project

  
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**II Year Master of Technological (Structural Engineering)  
Curriculum Structure – 2016 Scheme**

**Semester: III M.Tech. (Structural Engineering)**

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEP801	Design Project	PC	2-0-2	4	06	50	50	100	3 hours
2	15ESEE801	Design of Bridges	PSE	4-0-0	4	04	50	50	100	3 hours
3	15ESEE802	Masonry Structures								
4	15ESEE803	Aseismic Design of Structures								
5	15ESEI801	Internship/Industrial Training <sup>#</sup>	PW	0-0-2	2	02	50	50	100	3 hours
6	15ESEW801	Minor Project/Project Work Phase I*	PW	0-0-8	8	08	50	50	100	3 hours
<b>TOTAL</b>				<b>8-0-10</b>	<b>18</b>	<b>20</b>				

**Note: L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project**



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**Semester: IV M.Tech. (Structural Engineering)**

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEW802	Major Project/Project Work Phase II*	PW	0-0-20	20	20	50	50	100	3 hours
<b>TOTAL</b>				<b>0-0-20</b>	<b>20</b>	<b>20</b>				

**Note: L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project**

# 6 Weeks for Industrial training after the completion of III Semester SEE

\*Project Work Phase I and Phase II must be a Research Project

Minor Project is independent of Major Project

  
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# **MTech. (Structural Engineering)**

## **Curriculum Structure & Syllabus**

### **2017 – 19 Batch**

**(2017-18 Admission)**



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**I Year Master of Technological (Structural Engineering)  
Curriculum Structure – 2017-2019 Scheme**

Semester: I M.Tech.

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Mark	Total	Exam Duration
1	15ESEC701	Theory of Elasticity	PC	4-1-0	5	06	50	50	100	3 hours
2	15ESEC702	Theory of Plates and Shells	PC	4-1-0	5	06	50	50	100	3 hours
3	15ESEC703	Design of Special RC Structures	PC	4-1-0	5	06	50	50	100	3 hours
4	15ESEC704	Structural Dynamics	PC	4-1-0	5	06	50	50	100	3 hours
5	15ESEE701	Advanced Concrete Technology	PE	3-0-0	3	03	50	50	100	3 hours
	15ESEE702	Advanced Materials of Construction								
6	15ESEP701	CAAD Lab	PC	0-0-2	2	04	80	20	100	3 hours
7	15ESET701	Recent Topics on Technology Trends	PC	1-0-0	1	01	100	-	100	-
<b>TOTAL</b>				<b>20-4-2</b>	<b>26</b>	<b>32</b>				

**Note: L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project**

  
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(Structural Engineering) Curriculum – 2016-18

  
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## Semester: 2 M.Tech. (Structural Engineering)

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Mark	Total	Exam Duration
1	15ESEH701	Mathematical Thinking and Logical reasoning	PC	3-0-0	3	03	50	50	100	3 hours
2	15ECRC701	Principles and Practices of Engineering Education	PC	2-0-1	3	04	50	50	100	3 hours
3	15ESEC705	Finite Element Method	PC	4-1-0	5	06	50	50	100	3 hours
4	15ESEC706	Stability of Structures	PC	4-1-0	5	06	50	50	100	3 hours
5	15ESEE703	Design of Industrial Steel Structures	PE	4-0-0	4	04	50	50	100	3 hours
6	15ESEE704	Structural Reliability								
7	15ESEE705	Numerical Methods and Programming								
8	15ESEE706	Design of Foundations	PE	4-0-0	4	04	50	50	100	3 hours
9	15ESEE707	Structural Optimization								
<b>TOTAL</b>				<b>21-2-1</b>	<b>24</b>	<b>27</b>				

Note: L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project



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**II Year Master of Technological (Structural Engineering)  
Curriculum Structure – 2017-2019 Scheme**

**Semester: III M.Tech. (Structural Engineering)**

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Mark	Total	Exam Duration
1	15ESEP801	Design Project	PC	2-0-2	4	06	50	50	100	3 hours
2	15ESEE801	Design of Bridges	PSE	4-0-0	4	04	50	50	100	3 hours
3	15ESEE802	Masonry Structures								
4	15ESEE803	Aseismic Design of Structures								
5	15ESEI801	Internship/Industrial Training <sup>#</sup>	PW	0-0-2	2	02	50	50	100	3 hours
6	15ESEW801	Minor Project/Project Work Phase I*	PW	0-0-8	8	08	50	50	100	3 hours
<b>TOTAL</b>				<b>8-0-10</b>	<b>18</b>	<b>20</b>				

**Note: L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project**



## Semester: 4 M.Tech. (Structural Engineering)

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEW802	Major Project/Project Work Phase II*	PW	0-0-20	20	20	50	50	100	3 hours
<b>TOTAL</b>				<b>0-0-20</b>	<b>20</b>	<b>20</b>				

**Note:** L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project

\* 6 Weeks for Industrial training after the completion of III Semester SEE

\*Project Work Phase I and Phase II must be a Research Project

Minor Project is independent of Major Project



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# **MTech. (Structural Engineering) Curriculum Structure & Syllabus 2018 – 20 Batch (2018-19 Admission)**



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**I Year Master of Technological (Structural Engineering)  
Curriculum Structure – 2018-2020 Scheme**

Semester: I M.Tech.

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEC701	Theory of Elasticity	PC	4-1-0	5	06	50	50	100	3 hours
2	15ESEC702	Theory of Plates and Shells	PC	4-1-0	5	06	50	50	100	3 hours
3	15ESEC703	Design of Special RC Structures	PC	4-1-0	5	06	50	50	100	3 hours
4	15ESEC704	Structural Dynamics	PC	4-1-0	5	06	50	50	100	3 hours
5	18ESEE701	Design of Bridges	PE	4-0-0	4	04	50	50	100	3 hours
	15ESEE702	Advanced Materials of Construction								
	15ESEE703	Aseismic Design of Structures								
6	15ESEP701	CAAD Lab	PC	0-0-2	2	04	80	20	100	3 hours
7	15ESET701	Recent Topics on Technology Trends	PC	1-0-0	1	01	100	-	100	-
<b>TOTAL</b>				<b>21-4-2</b>	<b>27</b>	<b>33</b>				



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Note: T - Tutorial, P - Practical, ISA - In Semester Assessment, ESA - End Semester Assessment, PC - Programme Core, PE - Program Elective, PW - Project



## Semester: II M.Tech. (Structural Engineering)

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEH701	Mathematical Thinking and Logical reasoning	PC	3-0-0	3	03	50	50	100	3 hours
2	15ESEC705	Finite Element Method	PC	4-1-0	5	06	50	50	100	3 hours
3	15ESEC706	Stability of Structures	PC	4-1-0	5	06	50	50	100	3 hours
4	15ESEE703	Design of Industrial Steel Structures	PE	4-0-0	4	04	50	50	100	3 hours
	15ESEE704	Structural Reliability								
	15ESEE705	Numerical Methods and Programming								
5	15ESEE706	Design of Foundations	PE	4-0-0	4	04	50	50	100	3 hours
	15ESEE707	Structural Optimization								
	15ECRC701	Principles and Practices of Engineering Education								
6	18ESEP701	Structural Simulation Laboratory	PC	0-0-1	1	02	80	20	100	3 hours
7	18ESEP702	Design Project	PC	2-0-2	4	06	50	50	100	3 hours
<b>TOTAL</b>				<b>21-2-3</b>	<b>26</b>	<b>31</b>				

Note: L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project

**II Year Master of Technological (Structural Engineering)  
Curriculum Structure – 2018-20 Scheme**

**Semester: III M.Tech. (Structural Engineering)**

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEI801	Internship/Industrial Training#	PW	0-0-4	4	12	50	50	100	3 hours
2	15ESEW801	Minor Project/Project Work Phase I*	PW	0-0-8	8	08	50	50	100	3 hours
3	15ESEC801	Advanced Material Science	PC	3-0-0	3	03	50	50	100	3 hours
<b>TOTAL</b>				<b>3-0-12</b>	<b>15</b>	<b>23</b>				

**Note: L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project**



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**Semester: IV M.Tech. (Structural Engineering)**

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEW802	Major Project/Project Work Phase II*	PW	0-0-20	20	20	50	50	100	3 hours
<b>TOTAL</b>				<b>0-0-20</b>	<b>20</b>	<b>20</b>				

**Note: L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project**

# 6 Weeks for Industrial training after the completion of III Semester ESA

\*Project Work Phase I and Phase II must be a Research Project

Minor Project is independent of Major Project

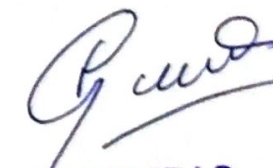
Distribution of credits semester wise

Semester	Credits
Semester 1	27
Semester 2	26
Semester 3	15
Semester 4	20
<b>Total</b>	<b>88</b>



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# **MTech. (Structural Engineering)**

## **Curriculum Structure & Syllabus**

### **2019 – 21 Batch**

**(2019-20 Admission)**



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**I Year Master of Technological (Structural Engineering)  
Curriculum Structure – 2019-2021 Scheme**

Semester: I M.Tech.

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEC701	Theory of Elasticity	PC	4-1-0	5	06	50	50	100	3 hours
2	15ESEC702	Theory of Plates and Shells	PC	4-1-0	5	06	50	50	100	3 hours
3	15ESEC703	Design of Special RC Structures	PC	4-1-0	5	06	50	50	100	3 hours
4	19ESEC701	Numerical Methods and Programming	PC	4-0-0	4	06	50	50	100	3 hours
5	18ESEE701	Design of Bridges	PE	4-0-0	4	04	50	50	100	3 hours
	15ESEE702	Advanced Materials of Construction								
	15ESEE703	Aseismic Design of Structures								
6	15ESEP701	CAAD Lab	PC	0-0-2	2	04	80	20	100	3 hours
7	15ESET701	Recent Topics on Technology Trends	PC	1-0-0	1	01	100	-	100	-
<b>TOTAL</b>				<b>21-4-2</b>	<b>26</b>	<b>33</b>				

**Professor & Head**, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment,  
School of Civil & Environmental Engineering, PE – Program Elective, PW - Project  
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*P. S. Rao*  
Program Head  
**REGISTRAR**  
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**Semester: II M.Tech. (Structural Engineering**

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEC704	Structural Dynamics	PC	4-1-0	5	03	50	50	100	3 hours
2	19ESEC702	Finite Element Method	PC	4-1-0	5	06	50	50	100	3 hours
3	15ESEC706	Stability of Structures	PC	4-1-0	5	06	50	50	100	3 hours
4	15ESEE703	Design of Industrial Steel Structures	PE	4-0-0	4	04	50	50	100	3 hours
	15ESEE704	Structural Reliability								
	15ESEH701	Mathematical Thinking and Logical Reasoning								
5	15ESEE706	Design of Foundations	PE	4-0-0	4	04	50	50	100	3 hours
	15ESEE707	Structural Optimization								
	15ECRC701	Principles and Practices of Engineering Education								
6	18ESEP701	Structural Simulation Laboratory	PC	0-0-1	1	02	80	20	100	3 hours
7	19ESEP702	Design Project	PC	2-0-1	3	03	50	50	100	3 hours
<b>TOTAL</b>				<b>21-3-2</b>	<b>27</b>	<b>31</b>				

**Note: L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project**



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**II Year Master of Technological (Structural Engineering)  
Curriculum Structure – 2019-2021 Scheme**

**Semester: III M.Tech. (Structural Engineering)**

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	20ESEI801	Internship/Industrial Training <sup>#</sup>	PW	0-0-7	7	07	50	50	100	3 hours
2	20ESEW801	Minor Project/Project Work Phase I *	PW	0-0-8	8	08	50	50	100	3 hours
<b>TOTAL</b>				<b>0-0-15</b>	<b>15</b>	<b>15</b>				

**Note: L – Lecture, T – Tutorial, P – Practical, ISA – In Semester Assessment, ESA – End Semester Assessment, PC-Programme Core, PE – Program Elective, PW - Project**



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## Curriculum Structure – 2019-2021 Scheme

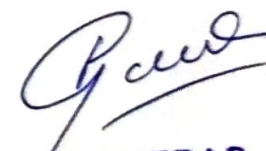
## Semester: IV M.Tech. (Structural Engineering)

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEW802	Major Project/Project Work Phase II*	PW	0-0-20	20	20	50	50	100	3 hours
<b>TOTAL</b>				<b>0-0-20</b>	<b>20</b>	<b>20</b>				

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# **MTech. (Structural Engineering)**

## **Curriculum Structure & Syllabus**

### **2020 – 22 Batch**

**(2020-21 Admission)**



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**I Year Master of Technological (Structural Engineering)**  
**Curriculum Structure – 2020-2022 Scheme (Academic Year 2020-21, 1st sem)**

Semester: I M.Tech.

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	20ESEC701	Theory of Elasticity	PC	4-0-0	4	04	50	50	100	3 hours
2	20ESEC702	Structural Dynamics	PC	4-1-0	5	06	50	50	100	3 hours
3	15ESEC703	Design of Special RC Structures	PC	4-1-0	5	06	50	50	100	3 hours
4	19ESEC701	Numerical Methods and Programming	PC	4-0-0	4	04	50	50	100	3 hours
5	18ESEE701	Design of Bridges	PE	4-0-0	4	04	50	50	100	3 hours
	15ESEE702	Advanced Materials of Construction								
	20ESEE701	Fire Resistance of Structures								
	20ESEE702	Theory of Plates and Shells								
6	15ESEP701	CAAD Lab	PC	0-0-2	2	04	80	20	100	3 hours
7	15ESET701	Recent Topics on Technology Trends	PC	1-0-0	1	01	100	-	100	-
<b>TOTAL</b>				<b>21-2-2</b>	<b>25</b>	<b>29</b>				

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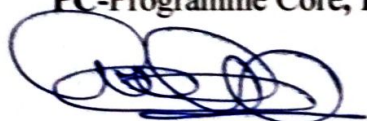
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## Semester: II M.Tech. (Structural Engineering)

Sl.No	Code	Course	Category	L-T-P	Credit	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	20ESEC703	Earthquake Resistant Design of Structures	PC	4-1-0	5	06	50	50	100	3 hours
2	19ESEC702	Finite Element Method	PC	4-0-0	4	04	50	50	100	3 hours
3	20ESEC706	Stability of Structures	PC	4-0-0	4	04	50	50	100	3 hours
4	15ESEE703	Design of Industrial Steel Structures	PE	4-0-0	4	04	50	50	100	3 hours
	15ESEE704	Structural Reliability								
	15ESEH701	Mathematical Thinking and Logical Reasoning								
5	15ESEE706	Design of Foundations	PE	4-0-0	4	04	50	50	100	3 hours
	15ESEE707	Structural Optimization								
	15ECRC701	Principles and Practices of Engineering Education								
	20ESEE703	Structural Health Monitoring								
6	18ESEP701	Structural Simulation Laboratory	PC	0-0-1	1	02	80	20	100	3 hours
7	19ESEP702	Design Project	PC	2-0-1	3	03	50	50	100	3 hours
<b>TOTAL</b>				<b>22-1-2</b>	<b>25</b>	<b>27</b>				

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**II Year Master of Technological (Structural Engineering)  
Curriculum Structure – 2020-22 Scheme**

**Semester: III M.Tech. (Structural Engineering)**

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	21ESEI801	Internship/Industrial Training <sup>#</sup>	PW	0-0-8	8	8	50	50	100	3 hours
2	21ESEW801	Minor Project/Project Work Phase I*	PW	0-0-10	10	10	50	50	100	3 hours
<b>TOTAL</b>				<b>0-0-18</b>	<b>18</b>	<b>18</b>				

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## Semester: IV M.Tech. (Structural Engineering)

S.No.	Code	Course	Category	L-T-P	Credits	Contact Hours	ISA Marks	ESA Marks	Total	Exam Duration
1	15ESEW802	Major Project/Project Work Phase II*	PW	0-0-20	20	20	50	50	100	3 hours
<b>TOTAL</b>				<b>0-0-20</b>	<b>20</b>	<b>20</b>				

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