



**ADHIYAMAAN COLLEGE OF ENGINEERING - HOSUR**  
(An Autonomous institute affiliated to Anna University, Chennai)

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**REGULATION-2022**  
**M.E STRUCTURAL ENGINEERING**  
**CURRICULUM**

**ADHIYAMAAN COLLEGE OF ENGINEERING - HOSUR**  
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**SEMESTER-I**

**M.E. (STRUCTURAL ENGINEERING)**

S.N o.	Course Code	Course Title	Category	L	T	P	C
<b>THEORY</b>							
1	122SET01	Advanced Mathematical Methods	FC	3	1	0	4
2	122SET02	Theory of Elasticity and Plasticity	PCC	3	1	0	4
3	122SET03	Structural Dynamics and Earthquake Engineering	PCC	3	1	0	4
4	122SET04	Research Methodology and IPR	RMC	2	0	0	2
5	122SEEXX	Professional Elective I	PEC	3	0	0	3
6	122SEAXX	Audit Course – I*	AC	2	0	0	1
<b>PRACTICALS</b>							
7	122SEP06	Advanced Construction Engineering and Experimental Techniques Laboratory	PCC	0	0	2	1
8	122SEP07	Technical Seminar	EEC	0	0	2	1
TOTAL				16	3	4	19

**SEMESTER II**

**M.E. (STRUCTURAL ENGINEERING)**

S.N o.	Course Code	Course Title	Category	L	T	P	C
<b>THEORY</b>							
1	222SET01	Advanced Steel Structures	PCC	3	1	0	4
2	222SET02	Advanced Concrete Structures	PCC	3	1	0	4
3	222SET03	Finite Element Analysis in Structural Engineering	PCC	3	0	0	3
4	222SET04	Experimental Techniques and Instrumentation	PCC	3	0	0	3
5	222SEEXX	Professional Elective II	PEC	3	0	0	3
6	222SEEXX	Professional Elective III	PEC	3	0	0	3
7	222SEAXX	Audit Course – II*					
<b>PRACTICALS</b>							
8	222SEP07	Numerical and Finite Element Analysis Laboratory	PCC	0	0	2	1
TOTAL				18	2	1	21

**SEMESTER-III**

S.N o.	Course Code	Course Title	Category	L	T	P	C
<b>THEORY</b>							
1	322CET01	Professional Elective IV	PEC	3	0	0	3
2	322CET02	Professional Elective V	PEC	3	0	0	3
3	322CEE03	Professional Elective VI	OEC	3	0	0	3
<b>PRACTICALS</b>							
7	322CEP04	Practical Training (4 weeks)	PC	0	0	4	2
8	322CEP05	Project Work I	PC	0	0	12	6
TOTAL				9	0	12	17

**SEMESTER-IV**

S.No.	Course Code	Course Title	Category	L	T	P	C
<b>THEORY</b>							
<b>PRACTICALS</b>							
7	422CEP01	Project Work- II	EEC	0	0	24	12
<b>TOTAL</b>				<b>18</b>	<b>2</b>	<b>6</b>	<b>23</b>

**FOUNDATION COURSES**

S.No.	Course Code	Course Title	Category	L	T	P	C
1	122SET01	Advanced Mathematical Methods	FCC	3	1	0	4

**PROFESSIONAL CORE COURSES (PCC)**

S.No.	Course Code	Course Title	Category	L	T	P	C
1	122SET02	Theory of Elasticity and Plasticity	PCC	3	1	0	4
2	122SET03	Structural Dynamics and Earthquake Engineering	PCC	3	1	0	4
3	122SEP06	Advanced Construction Engineering and Experimental Techniques Laboratory	PCC	0	0	4	2
4	222SET01	Advanced Steel Structures	PCC	3	1	0	4
5	222SET02	Advanced Concrete Structures	PCC	3	1	0	4
6	222SET03	Finite Element Analysis in Structural Engineering	PCC	3	0	0	3
7	222SEP07	Numerical and Finite Element Analysis Laboratory	PCC	0	0	4	2
<b>TOTAL</b>				<b>14</b>	<b>1</b>	<b>8</b>	<b>23</b>

**LIST OF PROFESSIONAL ELECTIVE COURSES (PEC)****SEMESTER – I, ELECTIVE - I**

S.No.	Course Code	Course Title	Category	L	T	P	C
1	122CEE01	Non-linear Analysis of Structures	PEC	3	0	0	3
2	122CEE02	Optimization of Structures	PEC	3	0	0	3
3	122CEE03	Wind and Cyclone Effects on Structures	PEC	3	0	0	3
4	122CEE04	Prefabricated Structures	PEC	3	0	0	3

**SEMESTER-II, ELECTIVE - II**

S.No.	Course Code	Course Title	Category	L	T	P	C
<b>THEORY</b>							
1	222CEE01	Advanced Concrete Technology	PEC	3	0	0	3
2	222CEE02	Advanced Prestressed Concrete	PEC	3	0	0	3
3	222CEE03	Reliability Analysis of Structures	PEC	3	0	0	3
4	222CEE04	Design of Formwork	PEC	3	0	0	3

**SEMESTER-II, ELECTIVE - III**

S.No.	Course Code	Course Title	Category	L	T	P	C
<b>THEORY</b>							
1	222CEE05	Maintenance, Repair and Rehabilitation of Structures	PEC	3	0	0	3
2	222CEE06	Mechanics of Fiber Reinforced Polymer Composite Materials	PEC	3	0	0	3
3	222CEE07	Design of Steel Concrete Composite Structures	PEC	3	0	0	3
4	222CEE08	Design of Masonry Structures	PEC	3	0	0	3

**SEMESTER-III, ELECTIVE - IV**

S.No.	Course Code	Course Title	Category	L	T	P	C
<b>THEORY</b>							
1	322CEE01	Design of Industrial Structures	PEC	3	0	0	3
2	322CEE02	Power plant Structures	PEC	3	0	0	3
3	322CEE03	Structural Stability	PEC	3	0	0	3
4	322CEE04	Structural Health Monitoring	PEC	3	0	0	3

**SEMESTER-III, ELECTIVE - V**

S.No.	Course Code	Course Title	Category	L	T	P	C
<b>THEORY</b>							
1	322CEE05	Design of Offshore Structures	PEC	3	0	0	3
2	322CEE06	Performance of Structures with Soil Structure Interaction	PEC	3	0	0	3
3	322CEE07	Design of Bridge Structures	PEC	3	0	0	3
4	322CEE08	Design of Shell and Spatial Structures	PEC	3	0	0	3

**SEMESTER-III, ELECTIVE - VI**

S.No.	Course Code	Course Title	Category	L	T	P	C
<b>THEORY</b>							
1	322CEE09	Advanced Design of Foundation Structures	PEC	3	0	0	3
2	322CEE10	Smart Structures and Applications	PEC	3	0	0	3
3	322CEE11	Energy Efficient Structures	PEC	3	0	0	3
4	322CEE12	Structures in Disaster prone areas	PEC	3	0	0	3

**RESEARCH METHODOLOGY AND IPR COURSES (RMC)**

S.No.	Course Code	Course Title	Category	L	T	P	C
<b>THEORY</b>							
1	122SET04	Research Methodology and IPR	RMC	2	0	0	2
<b>TOTAL</b>				<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>

**EMPLOYABILITY ENHANCEMENT COURSES (EEC)**

S.N o.	Course Code	Course Title	Category	L	T	P	C
<b>THEORY</b>							
1	122SEP07	Technical Seminar	EEC	0	0	2	1
2	322CEP04	Practical Training(4 weeks)	EEC	0	0	0	2
3	322CEP05	Project Work- I	EEC	0	0	12	6
3	422CEP01	Project Work – II	EEC	0	0	24	12
<b>TOTAL</b>				<b>0</b>	<b>0</b>	<b>38</b>	<b>21</b>

**SUMMARY**

Sl. No.	Name of the Programme: M.E STRUCTURAL ENGINEERING					
	SUBJECT AREA	CREDITS PER SEMESTER				CREDITS TOTAL
		I	II	III	IV	
1.	FC	04	00	00	00	04
2.	PCC	10	13	00	00	23
3.	PEC	03	06	09	00	18
4.	RMC	02	00	00	00	02
5.	EEC	01	00	08	12	21
	<b>TOTAL CREDIT</b>	<b>20</b>	<b>21</b>	<b>17</b>	<b>12</b>	<b>68</b>

