

ADHIYAMAAN COLLEGE OF ENGINEERING,

(AUTONOMOUS)

HOSUR- 635 130

DEPARTMENT OF MECHANICAL ENGINEERING

M.E. ENGINEERING DESIGN

REGULATION: 2022

CURRICULUM

Sl No.	I Semester			Hours/Week			
	Sub. Code	THEORY	Category	L	T	P	C
1	122EDT01	Advanced Numerical Methods	FC	3	1	0	4
2	122EDT02	Concepts of Engineering Design	PC	3	0	0	3
3	122EDT03	Computer Applications in Design	PC	3	0	0	3
4	122EDT04	Advanced Finite Element Analysis	PC	3	1	0	4
5	122EDT05	Optimization Techniques in Design	PC	3	1	0	4
6	122EDT06	Research Methodology and IPR	RMC	3	0	0	3
7	AC	Audit Course - I	AC	2	0	0	0
PRACTICAL							
8	122EDP08	CAD Laboratory	PC	0	0	2	1
9	122EDP09	Vibration Laboratory	PC	0	0	2	1
Total Mandatory Credits							23

Sl No.	II Semester			Hours/Week			
	Sub. Code	THEORY	Category	L	T	P	C
1	222EDT01	Tribology in Design	PC	3	0	0	3
2	222EDT02	Vibration Analysis and Control	PC	3	1	0	4
3	222EDT03	Advanced Mechanisms in Design	PC	3	1	0	4
4	PE1	PROFESSIONAL ELECTIVE 1	PC	3	0	0	3
5	PE2	PROFESSIONAL ELECTIVE 2	PE	3	0	0	3
6	OE	OPEN ELECTIVE	OE	3	0	0	3
7	AC	Audit Course - II	AC	2	0	0	0
PRACTICAL							
8	222EDP08	CAE Laboratory	PC	0	0	2	1
9	222EDP09	Term Paper and Seminar	EEC	0	0	2	1
Total Mandatory Credits							22

**COURSES WHICH CAN BE CHOSEN DURING I AND II SEMESTER
GROUP-I
(AUDIT COURSES)**

Sub. Code	Course Name	Category	L	T	P	C
X22EDA07	English for Research Paper Writing	PE	2	0	0	0
X22EDA08	Disaster Management	PE	2	0	0	0
X22EDA09	Constitution of India	PE	2	0	0	0
X22EDA10	Natramil Ilakkiyam (Tamil Subject)	PE	2	0	0	0

**COURSES WHICH CAN BE CHOSEN DURING II SEMESTER
GROUP-II
(PROFESSIONAL ELECTIVE 1)**

Sub. Code	Course Name	Category	L	T	P	C
222EDE01	Design of Hydraulic and Pneumatic Systems	PE	3	0	0	3
222EDE02	Quality Concepts in Design	PE	3	0	0	3
222EDE03	Design for Sustainability	PE	3	0	0	3
222EDE04	Composite Materials and Mechanics	PE	3	0	0	3
222EDE05	Advanced Mechanics of Materials	PE	3	0	0	3
222EDE06	Design of Automotive System	PE	3	0	0	3
222EDE07	Supply Chain Management	PE	3	0	0	3

**COURSES WHICH CAN BE CHOSEN DURING II SEMESTER
GROUP-III
(PROFESSIONAL ELECTIVE 2)**

Sub. Code	Course Name	Category	L	T	P	C
222EDE08	Integrated Product and Process Development	PE	3	0	0	3
222EDE09	Integrated Manufacturing Systems	PE	3	0	0	3
222EDE10	Design for Manufacture and Assembly	PE	3	0	0	3
222EDE11	Engineering Fracture Mechanics	PE	3	0	0	3
222EDE12	Artificial Intelligence and Machine Learning	PE	3	0	0	3
222EDE13	Mechatronics System in Design	PE	3	0	0	3
222EDE14	Advanced Machine Tool Design	PE	3	0	0	3

**COURSES WHICH CAN BE CHOSEN DURING II SEMESTER
GROUP-IV
(OPEN ELECTIVE)**

Sub. Code	Course Name	Category	L	T	P	C
222EOE01	Industrial Safety	OE	3	0	0	3
222EOE02	Operations Research	OE	3	0	0	3
222EOE03	Cost Management of Engineering Projects	OE	3	0	0	3
222EOE04	Composite Materials	OE	3	0	0	3

Sl No.	III Semester			Hours/Week			
	Sub. Code	THEORY	Category	L	T	P	C
1	322EDT01	Industrial Robotics & Experts System	PC	3	0	0	3
2	322EDT02	Mechanical Measurements and Analysis	PC	3	0	0	3
3	PE3	PROFESSIONAL ELECTIVE 3	PE	3	0	0	3
4	PE4	PROFESSIONAL ELECTIVE 4	PE	3	0	0	3
		PRACTICAL					
5	322EDP01	Project Work (Phase – I)	EEC	0	0	12	6
Total Mandatory Credits							18

Sl No.	IV Semester			Hours/Week			
	Sub. Code	PRACTICAL	Category	L	T	P	C
1	422EDP01	Project Work (Phase-II)	EEC	0	0	24	12
Total Mandatory Credits							12

**COURSES WHICH CAN BE CHOSEN DURING SEMESTER III
GROUP -V
(PROFESSIONAL ELECTIVE 3 & 4)**

Sub. Code	Course Name	Category	L	T	P	C
322EDE01	Micro Electro Mechanical Systems	PE	3	0	0	3
322EDE02	Engineering Materials and their Applications	PE	3	0	0	3
322EDE03	Product Life Cycle Management	PE	3	0	0	3
322EDE04	Design of Materials Handling Systems	PE	3	0	0	3
322EDE05	Vibration Control and Condition Monitoring	PE	3	0	0	3
322EDE06	Design of Hybrid and Electric Vehicles	PE	3	0	0	3
322EDE07	Surface Engineering	PE	3	0	0	3
322EDE08	Mechanical Behavior of Engineering Materials	PE	3	0	0	3
322EDE09	Design of Pressure Vessels and Piping	PE	3	0	0	3
322EDE10	Applied Engineering Acoustics	PE	3	0	0	3
322EDE11	Computational Fluid Dynamics	PE	3	0	0	3
322EDE12	Industry 4.0	PE	3	0	0	3
322EDE13	Bearing Design and Rotor Dynamics	PE	3	0	0	3
322EDE14	Industrial Internet of Things	PE	3	0	0	3

**M.E. Engineering Design
Regulation 2022
Minimum number of Credits to be earned**

Semester	I	II	III	IV	TOTAL
Credits	23	22	18	12	75

BOS Chairman

Principal