Indian Institute of Information Technology Design and Manufacturing Kurnool

IIITDM KURNOOL

CURRICULA AND SYLLABI

Master of Technology

DEPARTMENT OF
MECHANICAL ENGINEERING
M. TECH.: SMART MANUFACTURING

FIRST SEMESTER

S. No.	Course Code	Course Name	Category Code	I	P	C
1.	ME501	Mathematics for Simulation and Modelling	PEC	2	2	3
2.	ME502	Applied AI for Manufacturing	PEC	3	3	5
3.	ME503	Mechatronic Product Design	PEC	3	3	5
4.	ME504	Advanced Manufacturing Processes	PEC	3	3	5
5.	XXxxx	Elective I	PEC	3	0	3
6.	ME594	Seminar	PCD	0	3	2
Total No. of Credits						**23**

SECOND SEMESTER

S. No.	Course Code	Course Name	Category Code	I	P	C
1.	ME511	Industrial IoT and Cloud Computing	PEC	3	3	5
2.	ME512	Modelling and Simulation of Manufacturing Systems	PEC	3	3	5
3.	ME513	Micro and Nano Manufacturing Technology	PEC	3	3	5
4.	XXxxx	Elective II	PEC	3	0	3
5.	XXxxx	Elective III	PEC	3	0	3
6.	ME595	Technical Writing	PCD	0	3	2
Total No. of Credits						**23**

THIRD SEMESTER

S. No.	Course Code	Course Name	Category Code	I	P	C
1.	ME598	Dissertation Phase I	PEC	-	-	12
Total No. of Credits						**12**

FOURTH SEMESTER

S. No.	Course Code	Course Name	Category Code	I	P	C
1.	ME599	Dissertation Phase II	PEC	-	-	12
Total No. of Credits						**12**

Elective Courses

S. No.	Course Code	Course Name	Category Code	I	P	C
		List of Electives				
1	ME521	Information Systems in Manufacturing	PEC	3	0	3
2	ME522	Inspection and Testing in Manufacturing	PEC	3	0	3
3	ME523	Lasers in Manufacturing	PEC	3	0	3
4	ME524	Digital Manufacturing	PEC	3	0	3
5	ME525	Smart Materials and Structures	PEC	3	0	3
6	ME526	Design for Manufacturing and Assembly	PEC	3	0	3
7	ME527	Additive Manufacturing	PEC	3	0	3
8	ME528	Materials Fabrication and Characterization	PEC	3	0	3
9	ME529	Introduction to Smart Manufacturing	PEC	3	0	3
10	ME530	Processing of Alloys and Composites	PEC	3	0	3
11	ME531	Computer Integrated Manufacturing Systems	PEC	3	0	3
12	ME532	Industrial Instrumentation and Metrology	PEC	3	0	3
13	ME533	MEMS / NEMS and Sensors	PEC	3	0	3
14	ME534	Metal Forming	PEC	3	0	3
15	ME535	Total Quality Management	PEC	3	0	3
16	ME536	Nano Finishing Science and Technology	PEC	3	0	3
17	ME537	Processing of Composites	PEC	3	0	3
18	ME538	Surface Engineering	PEC	3	0	3
19	ME539	Modern Manufacturing Technologies	PEC	3	0	3
20	ME540	Robotics and Intelligent Systems	PEC	3	0	3
21	ME541	Mechanical Vibration and Condition Monitoring	PEC	3	0	3
22	ME542	Mechanical Vibrations	PEC	3	0	3
23	ME543	Advanced Solid Mechanics	PEC	3	0	3
24	ME544	Finite Element Methods	PEC	3	0	3
25	ME545	IC Engines and Gas Turbines	PEC	3	0	3
26	ME546	Computational Fluid Dynamics	PEC	3	0	3
27	ME547	Optimization Techniques for Mechanical Engineers	PEC	3	0	3
28	ME548	Product Design and Development	PEC	3	0	3
29	ME549	Computational Tools for Engineers	PEC	3	0	3
30	ME550	Soft Computing Techniques	PEC	3	0	3
31	ME551	Big Data Analytics	PEC	3	0	3
32	ME552	Applied Operations Research	PEC	3	0	3
33	ME553	Digital Control for Automation	PEC	3	0	3
34	ME554	Non-linear Dynamics	PEC	3	0	3
35	ME555	Operations and Supply Chain Management	PEC	3	0	3
36	ME556	Industry 4.0	PEC	3	0	3
37	ME557	Design and Analysis of Experiments	PEC	3	0	3