

Department of Mechanical Engineering
Scheme for M. Tech. in Smart Manufacturing

Semester I						
S. No.	Course Code	Course Name	Category	I	P	C
1	ME601T	Introduction to Smart Manufacturing	PEC	3	0	3
2	ME602T	Applied AI for Manufacturing	BSC	3	0	3
3	ME602P	Applied AI for Manufacturing Practice	BSC	0	3	2
4	ME603T	Mechatronic Product Design	PEC	3	0	3
5	ME603P	Mechatronic Product Design Practice	PEC	0	3	2
6	ME604T	Advanced Manufacturing Processes	PEC	3	0	3
7	ME604P	Advanced Manufacturing Practice	PEC	0	3	2
8	XXxxxT	Elective-I	PEC	3	0	3
9	ME651P	Seminar	PCD	0	3	2
Total				15	12	23

Semester II						
S. No.	Course Code	Course Name	Category	I	P	C
1	ME605T	Industrial IoT and Cloud Computing	PEC	3	0	3
2	ME605P	Industrial IoT and Cloud Computing Practice	PEC	0	3	2
3	ME606T	Modelling and Simulation of Manufacturing Systems	PEC	3	0	3
4	ME606P	Manufacturing Simulation Practice	PEC	0	3	2
5	ME607T	Micro and Nano Manufacturing Technology	PEC	3	0	3
6	ME6xxT	Elective-II	PEC	3	0	3
7	XXxxxT	Elective-III	PEC	3	0	3
8	ME652P	Comprehensive Viva-Voce	PEC	0	3	2
Total				15	9	21

Semester III						
1	ME653P	Dissertation Work-I	PCD	0	25	10
Total				0	25	10

Semester IV						
1	ME654P	Dissertation Work-II	PCD	0	25	20
Total				0	25	20

LIST OF ELECTIVES

Department Electives

S. No.	Course Code	Course Name	Category	I	P	C
Department Electives						
1	ME608T	Information Systems in Manufacturing	PEC	3	0	3
2	ME609T	Inspection and Testing in Manufacturing	PEC	3	0	3
3	ME610T	Lasers in Manufacturing	PEC	3	0	3
4	ME611T	Digital Manufacturing	PEC	3	0	3
5	ME612T	Smart Materials and Structures	PEC	3	0	3
6	ME613T	Product Design and Development	PEC	3	0	3
7	ME614T	Design for Manufacturing and Assembly	PEC	3	0	3
8	ME615T	Additive Manufacturing	PEC	3	0	3
9	ME616T	Materials Fabrication and Characterization	PEC	3	0	3

Free Electives

S. No.	Course Code	Course Name	Category	I	P	C
Free Electives						
1	ME621T	Advanced Engineering Mathematics	PEC	3	0	3
2	ME622T	Applied Operations Research	PEC	3	0	3
3	ME623T	Design and Analysis of Experiments	PEC	3	0	3
4	ME624T	Computational Tools for Engineers	PEC	3	0	3
5	ME511T	Industry 4.0	PEC	3	0	3
6	ME625T	Soft Computing Techniques	PEC	3	0	3
7	ME626T	Big Data Analytics	PEC	3	0	3
8	ME627T	Total Quality Management	PEC	3	0	3
9	ME628T	IC Engines and Gas Turbines	PEC	3	0	3