

**VEL TECH MULTI TECH DR.RANGARAJAN DR.SAKUNTHALA ENGINEERING COLLEGE**

**DEPARTMENT OF MECHANICAL ENGINEERING**

**2019 - 2023 BATCH (CO - PO & PS'O ATTAINMENT)**

Sl No	Course Code	Course	CO Attainment	Mapping with PO's												Mapping with PSO's		
				PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	191MA101	Engineering Mathematics I	1.87	1.87	1.87	1.24	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.24	0.00	0.62	1.24
2	191PH101	Engineering Physics	2.04	2.04	2.04	1.36	1.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.36	0.68	1.36	1.36
3	191CH101	Engineering Chemistry	1.92	1.92	1.92	1.28	1.28	0.00	1.28	1.28	1.28	0.00	0.00	0.00	1.28	0.00	0.64	0.00
4	191HS101	English for Engineering Students	2.08	0.69	0.00	0.00	0.00	0.00	0.00	0.00	2.08	2.08	2.08	2.08	1.38	0.00	0.00	0.00
5	191ME111	Basic Civil and Mechanical Engineering	1.99	1.99	1.99	0.66	1.99	0.00	1.32	1.32	0.66	1.32	0.00	0.00	1.32	0.66	0.00	0.00
6	191EE111	Basic Electrical and Electronics Engineering	1.75	1.75	1.75	1.75	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.17	0.58	1.17	0.00
7	191PH10A	Physics Laboratory	2.57	2.57	2.57	1.72	1.72	0.00	1.72	1.72	1.72	1.72	0.00	0.00	1.72	0.86	1.72	1.72
8	191CH10A	Chemistry laboratory	2.46	2.46	2.46	1.64	1.64	0.00	1.64	1.64	0.82	1.64	0.00	0.00	1.64	0.82	1.64	1.64
9	191MA201	Engineering Mathematics II	2.63	2.63	2.63	2.63	2.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.75	0.00	1.75	0.88
10	191PH204	Materials Science for Mechanical Engineering	2.67	2.67	2.67	1.78	0.89	0.00	1.78	1.78	0.00	0.00	0.00	0.00	0.89	0.00	0.89	0.89
11	191HS201	Environmental Science and Engineering	2.62	1.74	0.87	1.74	0.87	0.00	2.62	2.62	1.74	0.00	0.00	0.00	1.74	0.00	0.00	0.00
12	191ME211	Engineering Graphics	2.61	2.61	2.61	2.61	2.61	0.00	0.00	0.00	1.74	0.00	1.74	0.00	1.74	0.87	1.74	0.00
13	191ME212	Engineering Mechanics	2.58	2.58	2.58	2.58	2.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72	1.72	2.58	0.00
14	191ME221	Manufacturing Technology I	2.67	0.89	0.00	0.00	0.00	0.00	0.00	0.00	2.67	1.78	0.00	0.00	2.67	0.89	0.00	0.89
15	191ME21A	Engineering Practices Laboratory	2.68	2.68	0.89	1.79	0.00	0.89	0.89	0.00	0.00	1.79	0.00	0.00	0.00	0.89	0.89	0.89
16	191MA305	Transforms and Partial Differential Equations	2.46	2.46	2.46	2.46	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.46	0.00	0.82	0.00
17	191ME311	Fluid Mechanics and Machinery	2.69	2.69	2.69	2.69	2.69	0.00	0.00	0.90	0.00	0.00	0.00	0.00	1.79	2.69	1.79	1.79
18	191EE311	Electrical Drives and Controls	2.66	2.66	2.66	1.77	0.89	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.89	1.77	1.77	0.00
19	191ME321	Engineering Thermodynamics	2.56	2.56	2.56	2.56	2.56	0.85	0.00	0.85	0.85	0.00	0.00	0.00	1.71	1.71	0.85	0.00
20	191ME322	Manufacturing Technology II	2.75	2.75	1.83	1.83	1.83	1.83	0.92	0.00	0.00	0.00	0.00	0.00	1.83	2.75	1.83	0.92
21	191ME323	Engineering Metallurgy	2.27	2.27	1.51	1.51	1.51	0.76	0.76	0.00	0.00	0.00	0.00	0.00	1.51	0.00	1.51	0.76
22	191EE31A	Electrical Engineering Laboratory	2.69	2.69	2.69	2.69	1.79	1.79	0.00	0.00	0.00	1.79	0.00	0.00	0.90	0.00	0.90	0.00
23	191ME31A	Fluid Mechanics and machinery Laboratory	2.71	0.00	1.81	1.81	0.00	0.00	0.00	0.90	0.90	0.00	0.00	0.00	1.81	1.81	0.90	0.90
24	191ME32A	Manufacturing Technology Laboratory	2.79	2.79	1.86	0.00	0.00	0.93	0.93	0.00	0.00	1.86	0.00	0.00	2.79	2.79	1.86	0.00
25	191MA402	Statistics and Numerical Methods	2.80	2.80	2.80	2.80	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.86	0.00	0.00	0.00
26	191ME411	Strength of materials for Mechanical Engineers	2.81	2.81	2.81	1.88	1.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.88	0.00	2.81	0.94
27	191ME421	Kinematics of Machinery	2.69	2.69	2.69	2.69	2.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	2.69	2.69	1.80
28	191ME422	Computer Aided Design and Manufacturing	2.66	1.77	1.77	0.00	0.00	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.89	1.77	1.77	0.89
29	191ME423	Thermal Engineering	2.74	2.74	1.82	0.00	0.00	0.91	0.00	0.91	0.00	0.00	0.00	0.00	0.91	2.74	1.82	0.91
30	191HS40B	Interpersonal Skills Laboratory	2.84	0.00	1.90	1.90	0.00	0.00	0.00	0.95	0.95	0.00	0.00	0.00	1.90	1.90	1.90	0.95
31	191ME41A	Strength of materials Laboratory	2.83	0.00	0.94	0.00	0.00	2.83	0.00	0.00	0.00	0.00	0.00	0.00	0.94	1.89	1.89	0.94
32	191ME42A	CAD/ CAM Laboratory	2.85	2.85	1.90	1.90	1.90	2.85	0.00	0.00	0.00	1.90	0.00	1.90	1.90	0.00	1.90	1.90
33	191MC46A	Internship/ Training -I	2.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34	191ME521	Design of Machine Elements	2.35	2.35	2.35	2.35	1.56	1.56	0.00	0.00	0.78	0.00	0.00	0.00	1.56	1.56	1.56	0.78
35	191ME522	Metrology and Measurements	2.36	2.36	0.79	1.58	0.79	1.58	0.00	0.00	0.79	1.58	0.00	0.00	1.58	0.00	1.58	0.79
36	191ME523	Dynamics of Machines	2.34	2.34	2.34	2.34	2.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.56	1.56	2.34	1.56
37	191ME531	Automobile Engineering	2.39	2.39	1.59	1.59	0.80	1.59	0.80	1.59	0.00	0.00	0.00	0.00	1.59	0.80	1.59	1.59
38	191ME533	Computer Integrated Manufacturing	2.37	2.37	1.58	1.58	0.79	1.58	0.00	0.79	0.00	0.00	1.58	0.79	2.37	0.79	1.58	1.58
39	191ME535	Fundamentals of Nano Science	2.36	2.36	2.36	0.00	1.57	0.00	0.00	0.79	0.00	0.00	0.79	0.00	0.79	1.57	0.00	0.00
40	191CS5410	Problem Solving Python Programming	2.34	2.34	2.34	2.34	1.56	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.78	1.56
41	191ME52A	Metrology and Measurements Laboratory	2.34	2.34	2.34	1.56	1.56	1.56	0.00	0.00	0.00	1.56	0.00	0.00	1.56	0.00	1.56	0.78
42	191ME52B	Kinematics and Dynamics Laboratory	2.39	2.39	1.59	1.59	1.59	1.59	0.00	0.00	0.00	1.59	0.00	0.00	1.59	1.59	2.39	0.80
43	191ME621	Design of Transmission Systems	1.96	1.96	1.96	1.31	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	1.96	1.31	0.65
44	191ME622	Finite Element Analysis	1.99	1.99	1.99	1.99	1.33	1.33	0.00	0.00	0.00	0.00	0.00	0.00	1.99	0.66	1.33	0.66
45	191ME623	Heat and Mass Transfer	2.11	2.11	2.11	1.40	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	0.00	1.40	1.40

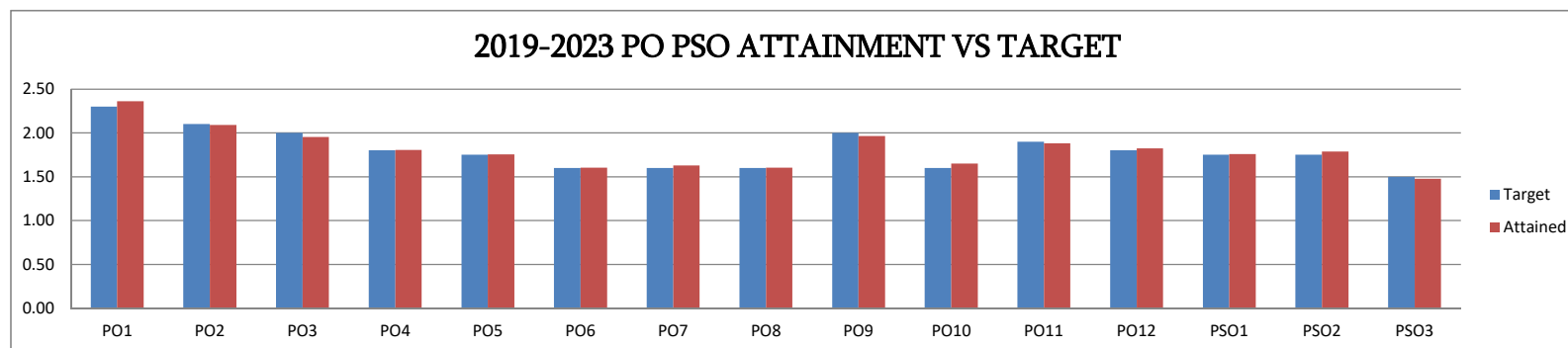
Sl No	Course Code	Course	CO Attainment	Mapping with PO's												Mapping with PSO's		
				PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
46	191ME634	Professional Ethics in Engineering	2.24	1.49	0.75	2.24	0.00	0.00	0.00	0.00	2.24	0.00	0.00	0.00	0.00	1.49	1.49	0.75
47	191ME632	Hydraulics and Pneumatics	2.27	2.27	1.51	0.76	1.51	1.51	0.00	0.00	0.00	0.00	0.00	0.00	2.27	1.51	1.51	0.76
48	191ME6310	Unconventional Machining Processes	2.19	2.19	0.73	0.73	0.73	0.00	0.73	0.73	0.73	0.00	0.73	0.00	0.73	0.00	1.46	0.73
49	191ME637	Renewable Sources of Energy	2.11	2.11	1.41	1.41	1.41	0.00	1.41	1.41	0.70	0.00	0.00	2.11	0.00	1.41	0.00	
50	191CS547	Internet of Things	2.02	2.02	1.35	0.67	0.67	0.00	0.67	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.00	
51	191ME62A	Finite Element Method Laboratory	2.62	2.62	2.62	2.62	1.75	2.62	0.00	0.00	0.00	1.75	1.75	0.87	2.62	0.00	1.75	1.75
52	191ME62B	Thermal Engineering Laboratory	2.62	2.62	2.62	1.75	1.75	1.75	0.00	1.75	0.00	1.75	0.00	0.00	1.75	0.87	1.75	0.87
53	191MC66A	Internship/ Training -II	2.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	191HS702	Principles of Management	1.98	0.66	0.00	0.00	0.00	0.00	1.32	0.00	1.32	0.00	0.66	0.00	1.32	0.00	0.00	0.00
55	191ME721	Power Plant Engineering	2.00	2.00	1.34	1.34	1.34	0.67	0.00	1.34	0.67	0.00	0.00	0.00	2.00	0.00	1.34	1.34
56	191ME734	Mechatronics	2.22	1.48	1.48	0.74	0.74	1.48	0.00	0.00	0.00	0.00	0.00	0.00	1.48	0.74	1.48	0.74
57	191ME738	Non Destructive Testing and Evaluation	2.17	2.17	1.45	1.45	1.45	1.45	0.00	0.00	1.45	0.00	0.00	0.00	1.45	0.00	0.72	1.45
58	191CS544	Human Computer Interactions	2.02	2.02	2.02	1.35	1.35	1.35	0.67	0.67	0.67	0.00	0.00	1.35	1.35	2.02	1.35	
59	191ME77A	Design & Fabrication Project	2.25	2.25	2.25	2.25	1.50	1.50	1.50	1.50	0.75	2.25	1.50	2.25	1.50	2.25	1.50	1.50
60	191MC76A	Technical Seminar	2.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
61	191ME833	Maintenance Engineering	1.96	1.96	1.31	0.65	0.00	0.00	1.31	0.00	0.00	0.65	0.00	0.00	0.65	0.65	0.00	0.00
62	191CE545	Disaster Management	1.97	0.00	0.00	0.00	0.00	0.00	1.97	1.97	1.32	0.00	0.66	0.00	0.66	0.00	0.00	0.00
63	191CE542	Air Pollution and Control Engineering	2.03	1.35	1.35	1.35	0.68	0.00	0.00	0.00	2.03	0.00	0.00	0.00	2.03	1.35	0.68	
64	191ME85A	Project Work	2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.46	1.64	2.46	2.46
		<b>Direct Attainment</b>		2.22	1.96	1.78	1.59	1.55	1.33	1.36	1.30	1.73	1.39	1.67	1.56	1.50	1.56	1.16
		<b>Indirect Attainment</b>		2.92	2.62	2.63	2.68	2.57	2.68	2.72	2.79	2.89	2.67	2.72	2.88	2.78	2.68	2.75
		<b>Program Attainment</b>		2.36	2.09	1.95	1.80	1.76	1.60	1.63	1.60	1.96	1.65	1.88	1.82	1.76	1.79	1.48

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**Batch 2019 - 2023**

PO/PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
<b>Mapping</b>	2.81	2.46	2.23	2.00	1.89	1.75	1.73	1.71	2.12	1.80	2.14	1.97	1.84	1.94	1.45
<b>Attainment</b>	2.36	2.09	1.95	1.80	1.76	1.60	1.63	1.60	1.96	1.65	1.88	1.82	1.76	1.79	1.48

PO/PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
<b>Direct Attainment</b>	2.22	1.96	1.78	1.59	1.55	1.33	1.36	1.30	1.73	1.39	1.67	1.56	1.50	1.56	1.16
<b>Indirect Attainment</b>	2.92	2.62	2.63	2.68	2.57	2.68	2.72	2.79	2.89	2.67	2.72	2.88	2.78	2.68	2.75
<b>Program Attainment</b>	2.36	2.09	1.95	1.80	1.76	1.60	1.63	1.60	1.96	1.65	1.88	1.82	1.76	1.79	1.48

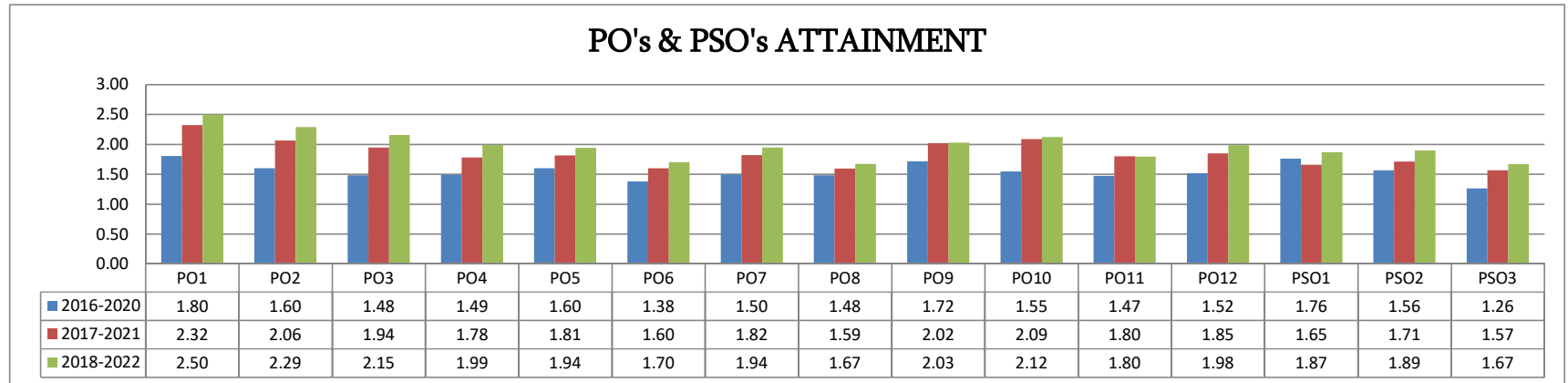
PO's & PSO's	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
<b>Target</b>	2.30	2.10	2.00	1.80	1.75	1.60	1.60	1.60	2.00	1.60	1.90	1.80	1.75	1.75	1.50
<b>Attained</b>	2.36	2.09	1.95	1.80	1.76	1.60	1.63	1.60	1.96	1.65	1.88	1.82	1.76	1.79	1.48



Prepared by

HoD/Mech

PO's & PSO's	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
2016-2020	1.80	1.60	1.48	1.49	1.60	1.38	1.50	1.48	1.72	1.55	1.47	1.52	1.76	1.56	1.26
2017-2021	2.32	2.06	1.94	1.78	1.81	1.60	1.82	1.59	2.02	2.09	1.80	1.85	1.65	1.71	1.57
2018-2022	2.50	2.29	2.15	1.99	1.94	1.70	1.94	1.67	2.03	2.12	1.80	1.98	1.87	1.89	1.67



Prepared by

HoD/Mech