

**Autonomous Program Structure of  
Final Year B. Tech. Eight Semester  
(Mechanical Engineering) Academic  
Year: 2023-2024 onwards**

	Course Title	Teaching Scheme Hrs /Week			Examination Scheme				Total Marks	Credit
		Lecture	Tutorial	Practical	In Sem	End Sem	Practical	Oral		
20PEME801	Programme Elective – I*	3	0	0	50	50	0	0	100	3
20PEME802	Programme Elective - II	3	0	0	50	50	0	0	100	3
20PEME803	Programme Elective -III	3	0	0	50	50	0	0	100	3
20PEME804	Programme Elective -IV	3	0	0	50	50	0	0	100	3
20OE801	Open Elective III**	3	0	0	50	50	0	0	100	3
20OE802	Open Elective IV***	3	0	0	50	50	0	0	100	3
20PEME802L	Programme Elective – II Lab	0	0	2	25	0	0	25	50	1
	<b>Total</b>	<b>18</b>	<b>0</b>	<b>2</b>	<b>325</b>	<b>300</b>	<b>0</b>	<b>25</b>	<b>650</b>	<b>19</b>
	<b>Grand Total</b>	<b>20</b>			<b>625</b>		<b>25</b>		<b>650</b>	<b>19</b>

\*NPTEL / Swayam Course, \*\*Open Elective-III: Department Level Course,\*\*\*Open Elective-IV: Multi-disciplinary Course.

**20PEME802 Programme Elective – II  
20PEME802L Programme Elective – II Lab**

- Mechanics of Composite Materials
- Computational Fluid Dynamics
- Finite Element Method

**20PEME803 Programme Elective - III**

- Industrial Internet of Things
- Product Design and Development
- Data Science for Mechanical Engineering
- Design Thinking for Innovations

**20PEME804 Programme Elective - IV**

- Advanced Refrigeration and Air Conditioning
- Advance Solid Mechanics
- Optimization Techniques
- Intelligent Hydraulic Systems

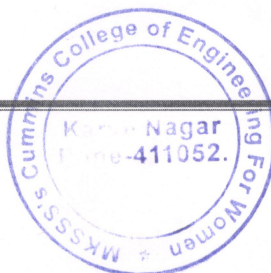


**APPROVED BY**

**Secretary Academic Council**

MKSSS's Cummins College of Engineering  
For Women, Pune-411052

Department of Mechanical Engineering




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**Chairman Academic Council**

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For Women, Pune-411052

20OE801 Open Elective-III			Eligible Departments				
Sr. No.	Course Code	Course Title	EnTC	Comp	IT	Mech	Instru
1	20OE801A	Big Data and Analytics	Y	Y	Y	Y	Y
2	20OE801B	Cyber Physical Systems	Y	Y	Y	N	Y
3	20OE801C	Digital Control	Y	N	N	Y	Y
4	20OE801D	Industrial Engineering and Management	Y	Y	Y	Y	Y
5	20OE801E	Introduction to Cyber-crime and Forensics	Y	Y	Y	Y	Y
6	20OE801F	Instrumentation in Food and Agriculture	Y	Y	Y	Y	Y
7	20OE801G	Medical IoT	Y	Y	Y	N	Y
8	20OE801H	Quantum Computing	Y	Y	Y	N	Y
9	20OE801I	Renewable Energy Sources	Y	Y	Y	Y	Y
10	20OE801J	Soft Computing	Y	Y	Y	Y	Y
11	20OE801K	Software Testing and Quality Assurance	Y	Y	Y	Y	Y

20OE802 Open Elective-IV			Eligible Departments				
Sr. No.	Course Code	Course Title	EnTC	Comp	IT	Mech	Instru
1	20OE802A	Applied statistics with R Programming	Y	N	N	Y	Y
2	20OE802B	Automobile Engineering	Y	Y	Y	N	Y
3	20OE802C	Autonomous Robots	N	Y	Y	Y	N
4	20OE802D	Building Automation and Energy Audit	Y	Y	Y	Y	N
5	20OE802E	Data Analysis and Visualization	Y	N	N	Y	Y
6	20OE802F	Data Science using Python	Y	N	N	Y	Y
7	20OE802G	Industrial Drives and Control	Y	Y	Y	Y	N
8	20OE802H	Smart Sensors and Structures	Y	Y	Y	Y	N
9	20OE802I	Wireless Networks	N	Y	Y	N	Y