

**Autonomous Program Structure  
Second Year B. Tech. Fourth Semester  
(Mechanical Engineering)  
Academic Year: 2021-2022 Onwards**

| Course Code | Course Title                                       | Teaching Scheme Hours/Week |          |           | Examination Scheme |            |           |           | Total Marks | Credit    |
|-------------|--|----------------------------|----------|-----------|--------------------|------------|-----------|-----------|-------------|-----------|
|             |  | Lecture                    | Tutorial | Practical | In Sem             | End Sem    | Practical | Oral      |             |           |
| 20ES401     | Elements of Electrical and Electronics Engineering | 3                          | 1        | 0         | 50                 | 50         | 0         | 0         | 100         | 4         |
| 20ME401     | Analysis and Synthesis of Mechanisms               | 2                          | 1        | 0         | 50                 | 50         | 0         | 0         | 100         | 3         |
| 20ME402     | Fluid Mechanics                                    | 2                          | 1        | 0         | 50                 | 50         | 0         | 0         | 100         | 3         |
| 20ME403     | Metal Casting, Forming and Joining Processes       | 3                          | 0        | 0         | 50                 | 50         | 0         | 0         | 100         | 3         |
| 20ME404     | Machine Design                                     | 3                          | 1        | 0         | 50                 | 50         | 0         | 0         | 100         | 4         |
| 20ME402L    | Fluid Mechanics Lab                                | 0                          | 0        | 2         | 25                 | 0          | 25        | 0         | 50          | 1         |
| 20ME403L    | Machine Shop Lab                                   | 0                          | 0        | 2         | 25                 | 0          | 25        | 0         | 50          | 1         |
| 20ME405L    | Design Lab – I                                     | 0                          | 0        | 2         | 25                 | 0          | 0         | 25        | 50          | 1         |
| 20ME406L    | Python for Mechanical Engineers                    | 0                          | 0        | 2         | 25                 | 0          | 0         | 0         | 25          | 1         |
| 20AC401     | Audit Course                                       | 0                          | 0        | 2         | 0                  | 0          | 0         | 0         | 0           | 0         |
|             | <b>Total</b>                                       | <b>14</b>                  | <b>4</b> | <b>10</b> | <b>350</b>         | <b>250</b> | <b>50</b> | <b>25</b> |             |           |
|             | <b>Grand Total</b>                                 | <b>28</b>                  |          |           | <b>600</b>         |            | <b>75</b> |           | <b>675</b>  | <b>21</b> |



**APPROVED BY**  
Secretary Academic Council  
MKSSS's Cummins College of Engineering  
For Women, Pune-411052




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Chairman Academic Council  
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