



## Overall Change in Programs

| Programme              | Category | Total Number of Courses | Number of Courses revised | Percentage Change |
|------------------------|----------|-------------------------|---------------------------|-------------------|
| Mechanical Engineering | UG       | 58                      | 20                        | <b>35%</b>        |
| Machine Design         | PG       | 24                      | 07                        | <b>29%</b>        |
| Production Management  | PG       | 23                      | 17                        | <b>74%</b>        |
| Energy Systems Engg    | PG       | 21                      | 15                        | <b>71%</b>        |

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## Change Summary Document

### Mechanical Engineering UG Program

Change summary between 2015-16 and 2016-17 admitted batches  
 (i.e. 2015 to 19 batch 2016 to 20 batch)

| Semester | Course Name                        | Total Hours | Revision Hrs | % Change | Year of Change Implementation |
|----------|------------------------------------|-------------|--------------|----------|-------------------------------|
| I        |                                    |             |              |          |                               |
|          |                                    |             |              |          |                               |
|          |                                    |             |              |          |                               |
| II       | Basic Electrical Engg<br>16EEEF102 | 50          | 5            | 10%      | 2016-17                       |
|          | Physics Lab<br>16EPHP102           | 20          | 14           | 70%      | 2016-17                       |
|          | Social Innovation<br>16EHSP101     | 64          | 60           | 94%      | 2016-17                       |
| III      | Engineering Design                 | 72          | 50           | 69%      | 2017-18                       |
|          | Instrumentation & Control<br>Engg  | 74          | 14           | 19%      | 2017-18                       |
|          |                                    |             |              |          |                               |
| IV       | Mechatronics Lab.                  | 24          | 72           | 200%     | 2017-18                       |
|          |                                    |             |              |          |                               |
|          |                                    |             |              |          |                               |
| V        |                                    |             |              |          |                               |
|          |                                    |             |              |          |                               |
|          |                                    |             |              |          |                               |
| VI       | Minor Project                      | 72          | 144          | 100%     | 2018-19                       |
|          |                                    |             |              |          |                               |
|          |                                    |             |              |          |                               |
| Total    |                                    |             |              |          |                               |

Note:

**Evidence enclosed:** Instrumentation & Control Engg .&Minor Project have higher number of credits and hence the number of hours are substantially high

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**Change Summary Document**

**Mechanical Engineering UG Program**

**Change summary between 2016-17 and 2017-18 admitted batches  
 (i.e. 2016 to 20 batch 2017 to 21 batch)**

| Semester | Course Name                | Total Hours | Revision Hrs | % Change | Year of Change Implementation |
|----------|----------------------------|-------------|--------------|----------|-------------------------------|
| I        |                            |             |              |          |                               |
|          |                            |             |              |          |                               |
| II       |                            |             |              |          |                               |
|          |                            |             |              |          |                               |
| III      |                            |             |              |          |                               |
|          |                            |             |              |          |                               |
| IV       |                            |             |              |          |                               |
|          |                            |             |              |          |                               |
| V        | Finite Element Methods     | 40          | 10           | 25%      | 2019-20                       |
|          | CAD Modelling and PLM Lab. | 80          | 40           | 50%      | 2019-20                       |
|          | FEM Lab                    | 26          | 4            | 25%      | 2019-20                       |
| VI       |                            |             |              |          |                               |
|          |                            |             |              |          |                               |
| VII      | IC Engines                 | 26          | 5            | 20%      | 2020-21                       |
|          | Design of Thermal Systems  | 40          | 5            | 20       | 2020-21                       |
| VIII     |                            |             |              |          |                               |
|          |                            |             |              |          |                               |
| Total    |                            |             |              |          |                               |

Evidence enclosed:

  
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**Change Summary Document  
 Mechanical Engineering\_UG Program**

**Change summary between 2017-18 and 2018-19 admitted batches  
 (i.e. 2017 to 21 batch 2018 to 22 batch)**

| Semester | Course Name   | Total Hours | Revision Hrs | % Change | Year of Change Implementation |
|----------|---|-------------|--------------|----------|-------------------------------|
| I        | Single Variable Calculus<br>18EMAB101                     | 60          | 40           | 66.67%   | 2018-19                       |
|          | Basic Electronics<br>18EECF101                            | 50          | 13           | 26%      | 2018-19                       |
|          | Engineering Exploration                                   | 78          | 63           | 80.7%    | 2018-2019                     |
| II       | Basic Electrical Engg.<br>18EEEF102                       | 40          | 6            | 15%      | 2018-19                       |
|          | Multivariable Calculus<br>18EMAB102                       | 60          | 40           | 66.67%   | 2018-19                       |
| III      | Control Systems   | 40          | 20           | 50%      | 2019-20                       |
|          | Control Systems Lab                                       | 48          | 24           | 50%      | 2019-20                       |
| IV       | Numerical Methods and<br>Partial Differential<br>Equation | 40          | 10           | 25%      | 2019-20                       |
|          |   |             |              |          |                               |
| V        |   |             |              |          |                               |
|          |   |             |              |          |                               |
| VI       | HVAC Systems  | 40          | 5            | 25%      | 2020-21                       |
|          |   |             |              |          |                               |
| VII      |   |             |              |          |                               |
|          |   |             |              |          |                               |
| VIII     |   |             |              |          |                               |
|          |   |             |              |          |                               |
|          |   | Total       |              |          |                               |

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Date: 15-03-2021

## Change Summary Document

### Machine Design PG Program

Change summary between 2015-16 and 2016-17 admitted batches  
(i.e. 2015 to 17 batch 2016 to 18 batch)

| Semester | Course Name   | Total Hours | Revision Hrs | % Change     | Year of Implementation |
|----------|---|-------------|--------------|--------------|------------------------|
| I        | --NO CHANGES--                                      |             |              |              | 2016-18                |
| II       | Theory of Vibrations with Application<br>Design Lab | 50<br>14    | 40<br>07     | 80<br>50     |                        |
| III      | Machine Tool Design and Analysis                    | 50          | 20           | 40           |                        |
| IV       | --NO CHANGES--                                      |             |              |              |                        |
|          | Total   | <b>114</b>  | <b>67</b>    | <b>58.77</b> |                        |

Evidence enclosed:

*Schemes of 2015-17 batch and 2016-18 batch with changes shown in different colour*

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Date: 15-03-2021

## Change Summary Document

### Machine Design PG Program

Change summary between 2016-17 and 2017-18 admitted batches  
(i.e. 2016 to 18 batch 2017 to 19 batch)

| Semester | Course Name                              | Total Hours | Revision Hrs | % Change | Year of Implementation |
|----------|--|-------------|--------------|----------|------------------------|
| I        | Modeling and Finite Element Analysis Lab | 24          | 04           | 17       | 2017-19                |
| II       | Elements of Fracture Mechanics           | 40          | 06           | 15       |                        |
|          | Research Methodology                     | 40          | 25           | 63       |                        |
|          | Mechanical Behavior of Materials         | 50          | 20           | 40       |                        |
| III      | NO CHANGE                                |             |              |          |                        |
| IV       | NO CHANGE                                |             |              |          |                        |
|          | Total                                    | 154         | 55           | 36       |                        |

Evidence enclosed:

*Schemes of 2016-18 batch and 2017-19 batch with changes shown in different colour*

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## Change Summary Document

### Machine Design PG Program

Change summary between 2017-18 and 2018-19 admitted batches  
(i.e. 2017 to 19 batch 2018 to 20 batch)

| Semester | Course Name | Total Hours | Revision Hrs | % Change | Year of Implementation |
|----------|-------------|-------------|--------------|----------|------------------------|
| I        | NO CHANGE   |             |              |          | 2018-20                |
| II       | NO CHANGE   |             |              |          |                        |
| III      | NO CHANGE   |             |              |          |                        |
| IV       | NO CHANGE   |             |              |          |                        |
|          | Total       |             |              |          |                        |

Evidence enclosed:

*Schemes of 2017-19 batch and 2018-20 batch with changes shown in different colour*

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Date: 15-03-2021

## Change Summary Document

### Machine Design PG Program

Change summary between 2018-19 and 2019-20 admitted batches  
(i.e. 2018 to 20 batch 2019 to 21 batch)

| Semester | Course Name         | Total Hours | Revision Hrs | % Change | Year of Implementation |
|----------|---------------------|-------------|--------------|----------|------------------------|
| I        | Mechanics of Solids | 40          | 15           | 37       | 2019-21                |
| II       | NO CHANGE           |             |              |          |                        |
| III      | NO CHANGE           |             |              |          |                        |
| IV       | NO CHANGE           |             |              |          |                        |
|          | Total               | 40          | 15           | 37       |                        |

Evidence enclosed:

*Schemes of 2018-20 batch and 2019-21 batch with changes shown in different colour*



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Date: 15-03-2021

## Change Summary Document

### Production Management PG Program

Change summary between 2015-16 and 2016-17 admitted batches  
(i.e. 2015 to 17 batch 2016 to 18 batch)

| Semester | Course Name                   | Total Hours | Revision Hrs | % Change | Year of Implementation |
|----------|-------------------------------|-------------|--------------|----------|------------------------|
| I        |                               | Nil         |              |          |                        |
| II       | Analysis of Forming Processes | 50          | 12           | 24       | 2016-17                |
| III      |                               | Nil         |              |          |                        |
| IV       |                               | Nil         |              |          |                        |
|          |                               | Total       |              |          |                        |

Evidence enclosed:

*Schemes of 2015-17 batch and 2016-18 batch with changes shown in different colour*

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## Change Summary Document

### Production Management PG Program


**Change summary between 2016-17 and 2017-18 admitted batches  
 (i.e. 2016 to 18 batch 2017 to 19 batch)**

| Semester         | Course Name   | Total Hours | Revision Hrs | % Change | Year of Implementation |
|------------------|---|-------------|--------------|----------|------------------------|
| I                | Manufacturing Systems and Automation                | 40          | 40           | 100      | 2017-18                |
|                  | CNC Machining Technology and Additive Manufacturing | 50          | 50           |          |                        |
|                  | Operations Management                               | 40          | 40           |          |                        |
|                  | World Class Manufacturing                           | 50          | 50           |          |                        |
|                  | Elective 1  | 50          | 50           |          |                        |
|                  | Automation Lab                                      | 24          | 24           |          |                        |
|                  | Machining Lab                                       | 24          | 24           |          |                        |
| Mini Project - I | 72  | 72          |              |          |                        |
| II               | Data Analytics                                      | 50          | 50           | 100      | 2017-18                |
|                  | Enterprise Resource Planning                        | 40          | 40           |          |                        |
|                  | Manufacturing Systems Simulation                    | 40          | 40           |          |                        |
|                  | Elective 2  | 50          | 50           |          |                        |
|                  | ERP Lab   | 24          | 24           |          |                        |
|                  | Simulation Lab                                      | 24          | 24           |          |                        |
|                  | Mini Project - II                                   | 72          | 72           |          |                        |
| III              | Nil   |             |              |          |                        |
| IV               | Nil   |             |              |          |                        |
| Total            |   |             |              |          |                        |

**Note: Out of 23 courses 15 courses are newly introduced.**

**Evidence enclosed:**

**Schemes of 2016-18 batch and 2017-19 batch with changes shown in different colour**

  
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## Change Summary Document

### Production Management PG Program

**Change summary between 2017-18 and 2018-19 admitted batches  
 (i.e. 2017 to 19 batch 2018 to 20 batch)**

| Semester | Course Name                       | Total Hours | Revision Hrs | % Change | Year of Implementation |
|----------|-----------------------------------|-------------|--------------|----------|------------------------|
| I        | PLM Fundamentals                  | 30          | 30           | 100      | 2018-19                |
|          | Engineering Data Management       | 40          | 40           |          |                        |
|          | Product Design and Development    | 40          | 40           |          |                        |
|          | Enterprise Resource Planning-I    | 40          | 40           |          |                        |
|          | Elective 1                        | 40          | 40           |          |                        |
|          | Collaborative Design-Modeling Lab | 120         | 120          |          |                        |
|          | PLM Function Lab                  | 72          | 72           |          |                        |
|          | ERP Function Lab                  | 72          | 72           |          |                        |
| II       | PLM Advanced                      | 30          | 30           | 100      | 2018-19                |
|          | Enterprise Resource Planning-II   | 40          | 40           |          |                        |
|          | Project Feasibility and Analysis  | 50          | 50           |          |                        |
|          | Elective 2                        | 40          | 40           |          |                        |
|          | Product Automation Lab            | 96          | 96           |          |                        |
|          | PLM Technical Lab                 | 72          | 72           |          |                        |
|          | ERP Technical Lab                 | 72          | 72           |          |                        |
| III      | Manufacturing Execution Systems   | 50          | 50           | 100      | 2018-19                |
|          | Manufacturing Systems Simulation  | 50          | 50           |          |                        |
| IV       | Nil                               |             |              |          |                        |
| Total    |                                   |             |              |          |                        |

**Note: Out of 21 courses 17 courses are newly introduced.**

**Evidence enclosed:**

**Schemes of 2017-19 batch and 2018-20 batch with changes shown in different colour**

  
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## Change Summary Document

### Production Management PG Program

Change summary between 2018-19 and 2019-20 admitted batches  
(i.e. 2018 to 20 batch 2019 to 21 batch)

| Semester | Course Name          | Total Hours | Revision Hrs | % Change | Year of Implementation |
|----------|----------------------|-------------|--------------|----------|------------------------|
| I        | Nil                  |             |              |          |                        |
| II       | Research Methodology | 40          | 40           | 100      | 2019-20                |
|          | Mini Project         | 72          | 72           | 100      | 2019-20                |
| III      | Nil                  |             |              |          |                        |
| IV       | Nil                  |             |              |          |                        |
|          | Total                |             |              |          |                        |

Evidence enclosed:

*Schemes of 2018-20 batch and 2019-21 batch with changes shown in different colour*

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Date: 15-03-2021

## Change Summary Document

### Energy Systems Engineering PG Program

Change summary between 2015-16 and 2016-17 admitted batches  
(i.e. 2015 to 17 batch 2016 to 18 batch)

| Semester | Course Name          | Total Hours | Revision Hrs | % Change | Year of Implementation |
|----------|----------------------|-------------|--------------|----------|------------------------|
| I        |                      | Nil         |              |          |                        |
| II       | Research Methodology | 40          | 40           | 100      | 2016-17                |
| III      |                      | Nil         |              |          |                        |
| IV       |                      | Nil         |              |          |                        |
|          |                      | Total       |              |          |                        |

**Note: Out of 21 courses 1 course is newly introduced.**

Evidence enclosed:

**Schemes of 2015-17 batch and 2016-18 batch with changes shown in different colour**

  
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## Change Summary Document

### Energy Systems Engineering PG Program

Change summary between 2016-17 and 2017-18 admitted batches  
(i.e. 2016 to 18 batch 2017 to 19 batch)

| Semester | Course Name                                   | Total Hours | Revision Hrs | % Change | Year of Implementation |
|----------|---|-------------|--------------|----------|------------------------|
| I        | Sustainable Building Design                   | 50          | 50           | 100      | 2017-18                |
|          | Instrumentation and Control in Energy Systems | 50          | 50           |          |                        |
|          | Mini Project - I                              | 72          | 72           |          |                        |
| II       | Demand Side Management                        | 50          | 50           |          |                        |
|          | Mini Project - II                             | 72          | 72           |          |                        |
| III      | Economics and Planning of Energy Conversion   | 50          | 50           |          |                        |
|          | Conventional Energy Conversion                | 50          | 50           |          |                        |
| IV       | Nil   |             |              |          |                        |
|          |   | Total       |              |          |                        |

**Note: Out of 20 courses 7 courses are newly introduced.**

Evidence enclosed:

**Schemes of 2016-18 batch and 2017-19 batch with changes shown in different colour**

  
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## Change Summary Document

### Energy Systems Engineering PG Program

Change summary between 2017-18 and 2018-19 admitted batches  
(i.e. 2017 to 19 batch 2018 to 20 batch)

| Semester | Course Name                                | Total Hours | Revision Hrs | % Change | Year of Implementation |
|----------|--|-------------|--------------|----------|------------------------|
| I        | Energy Systems Lab                         | 48          | 48           | 100      | 2018-19                |
|          | Industrial Instrumentation and control Lab | 48          | 48           |          |                        |
| II       | Modelling and Simulation Lab               | 48          | 48           |          |                        |
|          | IoT based Living space Lab                 | 48          | 48           |          |                        |
| III      | Energy Audit Practices                     | 50          | 50           |          |                        |
| IV       | Nil  |             |              |          |                        |
|          |  | Total       |              |          |                        |

**Note: Out of 21 courses 5 courses are newly introduced.**

**Evidence enclosed:**

**Schemes of 2017-19 batch and 2018-20 batch with changes shown in different colour**

  
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## Change Summary Document

### Energy Systems Engineering PG Program

Change summary between 2018-19 and 2019-20 admitted batches  
(i.e. 2018 to 20 batch 2019 to 21 batch)

| Semester | Course Name                                   | Total Hours | Revision Hrs | % Change | Year of Implementation |
|----------|---|-------------|--------------|----------|------------------------|
| I        | Computational Methods in Engineering Analysis | 40          | 40           | 100      | 2019-20                |
| II       | Economics and Planning of Energy conversion   | 50          | 50           |          |                        |
| III      | NIL   |             |              |          |                        |
| IV       | Nil   |             |              |          |                        |
|          |   | Total       |              |          |                        |

**Note: Out of 19 courses 2 courses are newly introduced.**

Evidence enclosed:

**Schemes of 2018-20 batch and 2019-21 batch with changes shown in different colour**

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