

**Department of Mechanical Engineering  
Board of Studies – First meeting**

**Program Offered** : B.E. Mechanical Engineering  
**Date & Time** : 1<sup>st</sup> September 2023 at 10.30 a.m.  
**Venue** : NPRCET Rear block seminar hall – RBSH006

**The Members of the Board are:**

| S. No. | Member Category  | Name, Designation and Affiliation  |
|--------|--|--|
| 1      | Chair Person   | <b>Dr. T. Saravana Kannan</b><br>Professor & Head<br>Department of Mechanical Engineering<br>NPR College of Engineering & Technology,<br>Natham – 624401<br>Dindigul.                          |
| 2      | University Nominee                                       | <b>Dr. K. Linga Durai</b><br>Professor & Dean<br>Anna University Regional Campus, Madurai.<br>Madurai – 625019, Tamil Nadu.  |
| 3      | Subject Experts from outside of<br>the parent university | <b>Dr. M. Adam Khan</b><br>Professor, Mechanical Engineering<br>Kalasalingam Academy of Research and Education<br>Krishnankoil – 626126. Virudhunagar District.                                |
| 4      |  | <b>Dr. R. Sudhakara Pandian</b><br>Professor, Department of Manufacturing Engineering<br>School of Mechanical Engineering,<br>VIT University, Vellore Campus,<br>Vellore, Tamil Nadu – 632014. |
| 5      | Industrial / Corporate sector /<br>Allied Sector Expert  | <b>Dr. G. Balakrishnan</b><br>Engineering Manager,<br>Caterpillar India Engineering Solutions Private Limited,<br>Chennai – 600 113. Tamil Nadu.   |
| 6      | Department Alumni  | <b>Mr. B. B. Arun Karthick</b><br>Senior Engineer,<br>BOSCH Global Software Solutions,<br>Bangalore.   |
| 7      | Experts from outside the<br>Autonomous college           | <b>Dr. PL. K. Palaniapan</b><br>Professor, Department of Mechanical Engineering<br>Thiagarajar College of Engineering,<br>Madurai – 625 015  |

|   |  |   |
|---|--|---|
| 8 | Members of the faculty of Mechanical Engineering | Dr. S. Paulsingarayar, Associate Professor      |
|   |  | Mr. K. Aruna Senthil Kumar, Assistant Professor |
|   |  | Mr. G. Sundararajan, Assistant Professor        |
|   |  | Mr. T. Balasubramani, Assistant Professor       |
|   |  | Mr. M. Mathan Raj, Assistant Professor          |
|   |  | Mr. B. Gopi, Assistant Professor                |
|   |  | Dr. C. Manivel, Assistant Professor             |
|   |  | Mr. M. Saravana Kumar, Assistant Professor      |
|   |  | Mr. M. Prakash, Assistant Professor             |
|   |  | Mr. P.G. Sam Infant Jones, Assistant Professor  |

Dr.T. Saravana Kannan, Chairman, Board of Studies of the Department of Mechanical Engineering welcomed and introduced the BoS members for the first BoS meeting. He started the presentation with a brief introduction to the PEO, PO & PSO of Mechanical Engineering. He explained the highlights of the new curriculum to the members.

#### **B.E. Mechanical Engineering**

Based on the following suggestions given by the members, the Chairman of BoS suggestions were incorporated appropriately in the Curriculum and Syllabus of Semester 1 & 2.

#### **Suggestions given by Dr. K. Linga Durai - University Nominee**

1. In Semester II and III, Laboratory courses credit can be rounded off.
2. Two Continuous assessment tests can be conducted having equal distributions of marks to obtain even distribution of Course Outcomes.
3. The course Fluid mechanics and machinery can be moved to fourth semester from third semester and similarly the course on strength of materials can be offered in third semester.
4. As per AICTE norms two mandatory courses need to be offered in curriculum in fifth and sixth semesters.
5. The Value Added Course credit need not be accounted for CGPA calculation.
6. Environmental science and Engineering course can be offered in the third semester
7. Finite element analysis can be offered as theory cum practical course in seventh semester.
8. Project work course can be offered as phase - 1 (2 credits) in 7<sup>th</sup> semester and phase - 2 (8 credits) in eighth semester.

#### Suggestions given by Dr. PL. K. Palaniapan - Subject Expert

1. The course content of physics for mechanical engineering and engineering materials and metallurgy can be merged into a single course that can be offered in second semester.
2. Hydraulics and Pneumatics course can be offered in sixth semester.
3. Industrial management course can be offered in fifth semester.

#### Suggestions given by Dr. G. Balakrishnan - Industrial Expert

1. The value added courses geometric dimensioning and tolerance, fixture design need to be offered in higher semesters.
2. The value added course Patent drafting for beginners, innovations by design, understanding of design, stress management were approved to be offered in third and fourth semester.
3. In fourth semester, Theory of machines can be offered as a theory cum practical course.
4. In fifth semester, Computer Aided Design can be offered as theory course and for CAD Lab CATIA, CREO, NX softwares were suggested.
5. Integrated product development course may be introduced along with mini project.
6. The courses on Disaster and Risk reduction management and industrial safety can be offered. A course inclusive of yoga and sports can be offered.

#### Suggestions given by Dr. M. Adam Khan - Subject Expert

1. In Second semester, Basics of Electrical and Electronics Engineering can be offered as theory cum practical course
2. The material characterization techniques, surface corrosion topics can be given weightage in the course on Engineering Materials and Metallurgy.
3. Metrology and Measurement can be offered as a theory cum practical course offered in fourth semester. The course title can be changed to Metrology and computer aided inspection. Experiments including machine vision/Image processing can be included.

#### Suggestions given by Mr. B. B. Arun Karthick - Alumni

1. After recruitment, industry will train the students on required skills. Institute can offer technology development based courses.
2. The knowledge on Machine learning and Artificial Intelligence can be given to the students.

#### Any other matters/discussion:

1. Industry supported courses can be offered with 1 credit.
2. Minor/Honours degree awareness to be given to the students.

Finally, the meeting was concluded with a vote of thanks by Mr. K. Aruna Senthil Kumar, Assistant Professor, Department of Mechanical Engineering. The chairman thanked all the members for their suggestions and substantial inputs provided in the meeting.



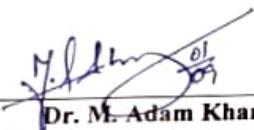


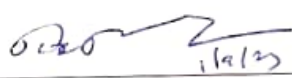


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|--|---|--|--|
| NSI — N 1.9.23   |   | 11. Aug 19/23  |  |
| <b>BoS, Chair Person</b>   |   | <b>University Nominee</b>  |  |
| <b>Dr. T. Saravana Kannan</b><br>Professor & Head<br>Department of Mechanical Engineering<br>NPR College of Engineering & Technology, Natham<br>- 624401, Dindigul.  |   | <b>Dr. K. Linga Durai</b><br>Professor & Dean<br>Anna University Regional Campus, Madurai.<br>Madurai-625019, Tamil Nadu.  |  |
| <b>Subject Experts from outside of the parent university</b>   |   |  |  |
| <br><b>Dr. M. Adam Khan</b><br>Professor, Mechanical Engineering<br>Kalasalingam Academy of Research and Education<br>Krishnankoil 626126<br>Virudhunagar Dist. Tamil Nadu |   | online   |  |
|  |   | <b>Dr. R. Sudhakara Pandian</b><br>Professor, Department of Manufacturing Engineering<br>School of Mechanical Engineering,<br>VIT University, Vellore Campus,<br>Vellore, Tamil Nadu - 632014. |  |
| <br>11/9/23   | <br>11/9/23      | <br>11/9/23   |  |
| <b>Industrial / Corporate sector Expert</b>  | <b>Department Alumni</b>  | <b>Experts from outside the Autonomous college</b>   |  |
| <b>Dr. G. Balakrishnan</b><br>Engineering Manager<br>Caterpillar India Engineering<br>Solutions Private Limited, Chennai<br>- 600 113. Tamil Nadu.   | <b>Mr. B. B. Arun Karthick</b><br>Senior Engineer<br>BOSCH Global Software<br>Solutions, Bangalore. | <b>Dr. P.L. K. Palaniapan</b><br>Professor, Department of Mechanical<br>Engineering<br>Thiagarajar College of Engineering,<br>Madurai - 625 015  |  |



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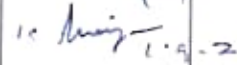
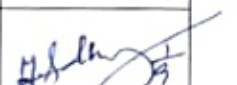
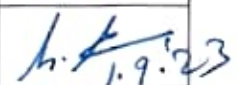
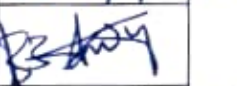
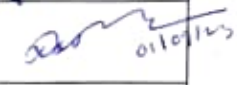

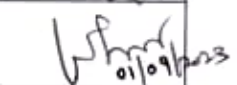
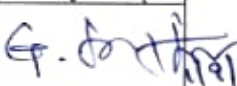
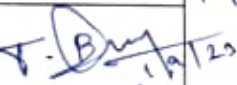

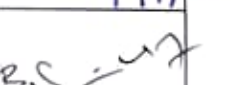
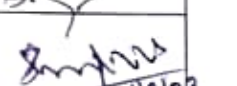
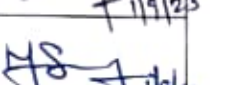
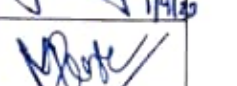
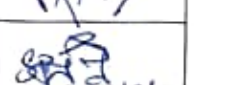
### Department of Mechanical Engineering

### Board of studies Meeting - Attendance Report

Date : 01.09.2023

Time : 10.30 a.m.

Venue : NPRCET Rear block Seminar Hall

| S. No | Name                       | Designation         | Association                                 | Signature  |
|-------|----------------------------|---------------------|---|--|
| 1     | Dr. T. Saravana Kannan     | Professor & Head    | Board of Chairman                           |  1.9.23     |
| 2     | Dr. K. Linga Durai         | Professor & Dean    | University Nominee                          |  1.9.23     |
| 3     | Dr. M. Adam Khan           | Professor           | Subject Experts                             |             |
| 4     | Dr. R. Sudhakara Pandian   | Professor           | Subject Experts                             | online   |
| 5     | Dr. G. Balakrishnan        | Engineering Manager | Industrial / Corporate sector               |  1.9.23     |
| 6     | Mr. B. B. Arun Karthick    | Senior Engineer     | Alumni                                      |            |
| 7     | Dr. PL. K. Palaniapan      | Professor           | Experts from outside the Autonomous college |  01/09/23 |
| 8     | Dr. S. Paulsingarayar      | Associate Professor | Faculty Member                              |  01/09/23 |
| 9     | Mr. K. Aruna Senthil Kumar | Assistant Professor | Faculty Member                              |  01/09/23 |
| 10    | Mr. G. Sundararajan        | Assistant Professor | Faculty Member                              |  1/9/23   |
| 11    | Mr. T. Balasubramani       | Assistant Professor | Faculty Member                              |  1/9/23   |
| 12    | Mr. M. Mathan Raj          | Assistant Professor | Faculty Member                              |  1/9/23   |
| 13    | Mr. B. Gopi                | Assistant Professor | Faculty Member                              |           |
| 14    | Dr. C. Manivel             | Assistant Professor | Faculty Member                              |  1/9/23   |
| 15    | Mr. M. Saravana Kumar      | Assistant Professor | Faculty Member                              |  1/9/23   |
| 16    | Mr. M. Prakash             | Assistant Professor | Faculty Member                              |           |
| 17    | Mr. P.G. Sam Infant Jones  | Assistant Professor | Faculty Member                              |  1/9/23   |



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### Invited Members

|    |                    |                     |                |  |
|----|--------------------|---------------------|----------------|--|
| 18 | S. Sathish Kumar   | Assistant Professor | Faculty Member |  |
| 19 | Dr. A. Kanimozhi   | Associate Professor | Faculty Member |  |
| 20 | Dr. N. Prabhakaran | Associate Professor | Faculty Member |  |
| 21 | Mr. B. KARUPPUSAMY | Assistant Professor | Faculty Member |  |

1.9.23  
Dr. T. Saravana Kannan  
Chairman BoS

### Department of Mechanical Engineering

#### Minutes of the Board of Studies Meeting -1

The Following faculty members have been identified for Question paper setting & Examiners.

| Sl. No | Name & Designation                          | Association  |
|--------|---|--|
| 1      | Dr. R. Dhinakaran<br>Professor              | Puducherry Technological University,<br>Pondicherry.       |
| 2      | Dr. J. Thanikachalam<br>Associate Professor | Mepco Schlenk Engineering College, Sivakasi.               |
| 3      | Dr. T. Ramesh<br>Associate Professor        | National Institute of Technology, Tiruchirappalli          |
| 4      | Dr. M. Balakrishnan<br>Assistant Professor  | Nehru Institute of Engineering & Technology,<br>Coimbatore |
| 5      | Dr. L. Poovazhagan<br>Associate Professor   | SSN College of Engineering, Chennai                        |
| 6      | Dr. A. Suresh Babu<br>Professor             | Anna University, Chennai                                   |
| 7      | Dr. S. Jeyanthi<br>Professor                | Vellore Institute of Technology, Chennai.                  |
| 8      | Dr. T. Venugopal<br>Professor               | Vellore Institute of Technology, Chennai.                  |
| 9      | Dr. S. Prabhu<br>Professor                  | SRM University, Chennai                                    |
| 10     | Dr. P. Maran<br>Professor                   | Thiagarajar College of Engineering, Madurai.               |
| 11     | Dr Babu S<br>Associate Professor            | PSG College of Technology, Coimbatore.                     |
| 12     | Dr. K. Arumugam<br>Assistant Professor      | University College of Engineering<br>Ramanathapuram        |



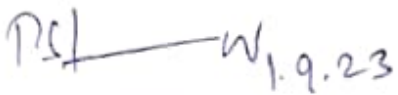
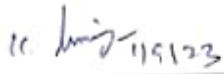
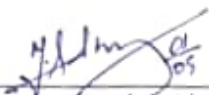
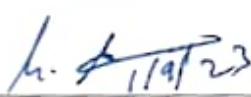
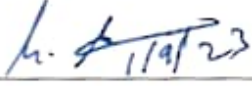



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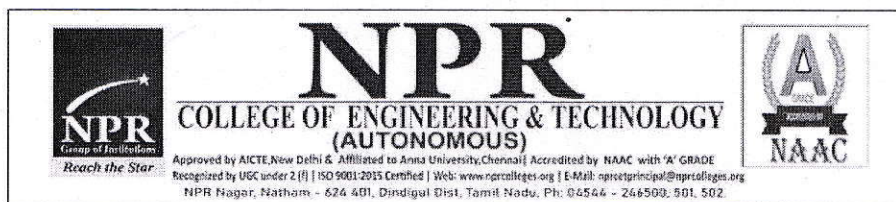
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|  |   |   |
|--|---|---|
| <br><b>BoS, Chair Person</b>  |   | <br><b>University Nominee</b>   |
| <b>Dr. T. Saravana Kannan</b><br>Professor & Head<br>Department of Mechanical Engineering<br>NPR College of Engineering & Technology,<br>Natham – 624401, Dindigul.  |   | <b>Dr. K. Linga Durai</b><br>Professor & Dean<br>Anna University Regional Campus, Madurai.<br>Madurai-625019, Tamil Nadu.   |
| <b>Subject Experts from outside of the parent university</b>   |   |   |
| <br><b>Dr. M. Adam Khan</b><br>Professor, Mechanical Engineering<br>Kalasalingam Academy of Research and<br>Education<br>Krishnankoil 626126<br>Virudhunagar Dist. Tamil Nadu |   | online<br><b>Dr. R. Sudhakara Pandian</b><br>Professor, Department of Manufacturing<br>Engineering<br>School of Mechanical Engineering,<br>VIT University, Vellore Campus,<br>Vellore, Tamil Nadu - 632014. |
| <br><b>Industrial / Corporate sector Expert</b>   | <br><b>Department Alumni</b> | <br><b>Experts from outside the Autonomous college</b>  |
| <b>Dr. G. Balakrishnan</b><br>Engineering Manager<br>Caterpillar India Engineering<br>Solutions Private Limited,<br>Chennai – 600 113. Tamil<br>Nadu.  | <b>Mr. B. B. Arun Karthick</b><br>Senior Engineer<br>BOSCH Global Software<br>Solutions, Bangalore.             | <b>Dr. PL. K. Palaniapan</b><br>Professor, Department of<br>Mechanical Engineering<br>Thiagarajar College of<br>Engineering, Madurai – 625<br>015   |






**Department of Mechanical Engineering**  
**Board of Studies – First meeting – Action taken report**

Action taken Report through the minuted BOS meeting based on the recommendation of feedback received from all stakeholders.

**BOS Meeting - 1**

| Members   | Suggestions   | Action Taken  |
|---|---|---|
| <b>Dr. K. Linga Durai</b><br><br>University Nominee | In Semesters II & III, Laboratory course credit can be rounded off  | Laboratory course credits in Semester III have been rounded off from 1.5 to 2.0 credits. However, in semester II, the credit in the common lab courses remains the same.                      |
|   | Two Continuous assessment tests can be conducted having equal distributions of marks to obtain an even distribution of Course Outcomes.   | It is planned to follow three continuous internal assessment common for all departments.  |
|   | The course Fluid Mechanics and Machinery can be moved to the fourth semester from the third semester and similarly, the course on strength of materials can be offered in the third semester. | As per the suggestions from the advisory committee, Fluid Mechanics and Machinery course has been swapped to the fourth semester, and the Strength of Materials" course in the third semester |
|   | As per AICTE norms two mandatory courses need to be offered in the curriculum in the fifth and sixth semesters.   | Two mandatory courses will be offered in the third and fourth semesters to meet the AICTE requirement.  |
|   | The Value-Added Course credit need not be accounted for in CGPA calculation.  | Yes, the value-added course credit is not accounted for in the CGPA calculation.  |
|   | Environmental science and Engineering courses can be offered in the third semester  | It has been decided to offer in the 4 <sup>th</sup> semester as we planned earlier. Because a common arrangement is made for all departments to offer in the 4 <sup>th</sup> semester.        |
|   | Finite element analysis can be offered as a theory cum practical course in the seventh semester.  | Finite Element Analysis will be offered as a theory cum practical course in the seventh semester.   |
|   | Project work courses can be offered as phase - 1 (2 credits) in the 7th semester and phase - 2 (8   | The project work course is offered with 10 credits similar to Anna University R 2021 to give more   |

  
**Head of the Department**  
 Department of Mechanical Engineering  
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|  | credits) in the eighth semester.   | importance to industry-based projects.  |
|--|--|---|
| <b>Dr.PL.K. Palaniapan</b><br>Subject Expert   | The course content of physics for mechanical engineering and engineering materials and metallurgy can be merged into a single course that can be offered in the second semester. | Merged the course content of Physics for Mechanical Engineering and Engineering Materials and Metallurgy into a single course as Materials Science and Technology in the second semester.                       |
|  | Hydraulics and Pneumatics courses can be offered in the sixth semester.  | Offered the Hydraulics and Pneumatics course in the sixth semester.   |
|  | Industrial management courses can be offered in the fifth semester.  | It is planned to offer in the 7 <sup>th</sup> semester as similar to R2021.   |
| <b>Dr.G. Balakrishnan</b><br>Industrial Expert | The value-added courses geometric dimensioning and tolerance, and fixture design need to be offered in higher semesters.   | The value-added courses on topics like "Geometric Dimensioning and Tolerance" and "Fixture Design" will be considered in higher semesters as per the suggestion.  |
|  | The value-added courses Patent Drafting for Beginners, Innovations by Design, Understanding of Design, and Stress Management be offered in the third and fourth semesters.       | Value-added courses such as Patent Drafting for Beginners, Innovations by Design, Understanding of Design, and Stress Management will be considered in the third and fourth semesters as per panel suggestions. |
|  | In the fourth semester, Theory of Machines can be offered as a theory cum practical course.  | It is difficult to teach the syllabus within the allocated time if we offer Theory cum practical for this course. So, we decided to continue the same as we planned earlier.                                    |
|  | In the fifth semester, Computer-Aided Design can be offered as a theory course, and for CAD Lab CATIA, CREO, and NX software were suggested.                                     | Computer-Aided Design and Manufacturing is offered as a theory course in the fifth semester. In addition, CATIA, CREO, and NX software will be used in the CAD/ CAM Laboratory.                                 |
|  | An integrated product development course may be introduced along with a mini-project.  | We decided to follow the common course the Mini-project for all departments as we planned.  |
|  | Courses on Disaster and Risk reduction management and industrial safety can be offered. A course inclusive of yoga and   | Offer mandatory courses on Disaster and Risk Reduction Management and Industrial Safety as per the Anna University  |

*DCI*  
**Head of the Department**  
Department of Mechanical Engineering  
NPR College of Engineering & Technology  
Natham Dindigul (D<sup>TM</sup>) - 624 401





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|   |   |  |
|---|---|--|
|   | sports can be offered.  | curriculum. Yoga and sports can also be offered optionally as per the AICTE model curriculum.  |
| <b>Dr. M. Adam Khan</b><br>Subject Expert | In the Second semester, Basics of Electrical and Electronics Engineering can be offered as a theory cum practical course  | As we received feedback from the EEE department that it is difficult to cover the syllabus if we offer theory cum practical for this course.   |
|   | The material characterization techniques and surface corrosion topics can be given weightage in the course on Engineering Materials and Metallurgy.   | Weightage is given to material characterization techniques and surface corrosion topics in the proposed curriculum.  |
|   | Metrology and Measurement can be offered as a theory cum practical course offered in the fourth semester. The course title can be changed to Metrology and computer-aided inspection. Experiments including machine vision/Image processing can be included | This will be discussed again in the next BoS meeting to frame the syllabus if possible. At this moment we decided to follow similar to Anna University R2021 as we planned earlier.          |
| <b>Mr. B. B. Arun Karthick</b><br>Alumni  | After recruitment, the industry will train the students in the required skills. The institute can offer technology development-based courses.   | It is planned to Introduce technology-development-based courses along with curriculum and value-added courses.   |
|   | The knowledge of Machine learning and Artificial Intelligence can be given to the students.   | Machine learning and artificial intelligence-based courses are offered in the curriculum.  |
| <b>Common Suggestions</b>                 | Industry-supported courses can be offered with 1 credit.  | Offer industry-supported courses with 1 credit along with the regular curriculum, but the credits are not accountable for CGPA calculations.   |
|   | Minor/Honours degree awareness to be given to the students.   | Provide awareness to the students about minor or honors degree options from the first semester onward. Make all the students either go for honors or minors along with their degree courses. |

  
BoS Chairman

(Dr. T. Saravana Kannan)

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