



# **BMS Institute of Technology and Management**

(Autonomous Institution, Affiliated to VTU)

Post Box No. 6443, Avalahalli, Doddaballapura Main Road,  
Yelahanka, Bengaluru-560 064.

**Department of Mechanical Engineering**

## **7<sup>th</sup> Board of Studies Meeting**



<b>Department</b>	<b>Mechanical Engineering</b>
<b>Date of BoS</b>	<b>7th Aug 2025</b>
<b>Venue</b>	<b>Academic Block, Seminar Hall-2</b>
<b>Start time</b>	<b>10:30 AM</b>



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## **Department of Mechanical Engineering**

BMSIT/Off/2025-26/

Date: 22<sup>nd</sup> August 2025

### **Board of Studies Meeting Proceedings**

The Department of Mechanical Engineering (Autonomous), BMSIT&M has conducted its 7<sup>th</sup> Board of Studies (BoS) meeting in Academic Block, Seminar Hall-2, 2<sup>nd</sup> Floor on 14<sup>th</sup> August 2025 Thursday. from 10:30 AM to 2:30 PM. The proceeding of the meeting is as follows.

The list of members attended is attached in Annexure -I.

#### **Agenda of the meeting:**

1. Review and approval of the scheme and syllabus for VIII semester – 2021 Scheme for the AY 2025-26.
2. Review and approval of the scheme and syllabus for III, V and VI semester – 2022 Scheme for the AY 2025-26.
3. Review and approval of the Scheme and Syllabus for I semester – 2025 Scheme for the AY 2025-26.
4. Approval of NPTEL courses offered for 2022 scheme.
5. Approval of the Members for BOE for the odd Semester course of the AY 2025-26.
6. Approval of departmental Vision, Mission, PEO's and PSO's.

#### **Proceeding of the meeting:**

1. The Head of Department (HoD) welcomed all the members with their brief introduction to the Seventh BoS meeting and presented the following agenda points for discussion.
  - a) Brief Department presentation.
  - b) Scheme of I and II Semester (2025 Scheme).
  - c) Syllabus of I year for the subjects Elements of Mechanical Engineering (Theory and Laboratory). Introduction to Mechanical Engineering and Computer Aided Engineering Drawing for 2025 scheme.
  - d) Scheme and Syllabus of VII semester (2022 Scheme) BE, for the academic year 2024-25.
  - e) VIII Semester NPTEL Courses for 2022 Scheme.
  - f) NPTEL list for June-Dec Session.
  - g) Approval for Board of Examinations panel members for the ODD Semester Course of the AY 2025-26.
  - h) Approval of Vision & Mission of the Department, PEO's and PSO's statements.
2. Dr. Keerthi Kumar N, Assistant Professor, ME Department and BoS coordinator presented the scheme and syllabus of I/II 2025 scheme and VII semester of 2022 scheme, for the

approval of BoS members.

3. All the course coordinators were informed to present their subject for BOS approval. After deliberations the committee suggested the following.

**(A) General Suggestions on the Scheme and Syllabus:**

- a. Add topics close to industry standards.
- b. Focus on electives opted by students should be emphasized.

**(B) Modifications Suggested:**

**1<sup>st</sup> Sem 2025 scheme.**

**1. Elements of Mechanical Engineering (1BEME105)**

- Add contents which relates to mechanics.
- Ensure a fair bit of knowledge on engineering, electrical and mechanics.
- Add the concept of difference between power transmission and electrical transmission.
- Introduce metal cutting process in module 3.
- Add basic ideas of manufacturing process in module 3.

**2. Basic Mechanical Engineering Laboratory (1BEMEL106)**

- Remove Slip Gauge concepts and introduce Vernier calipers and micrometers.
- One component of operation through conventional and CNC can be included.
- Add 3D printing (simple demo).
- Add etching process before soldering process so that student will know end to end process.

**3. Introduction to Mechanical Engineering (1BESC104D/204D)**

- Add complete conventional power source (1<sup>st</sup> conventional, 2<sup>nd</sup> electrical etc) in module 4.
- Remove PV Diagram concept.
- Give over view on plastic injection molding, casting and introduce Lathe machine tools.
- Introduction on computational mechanics can be added for better visuals.

**4. Computer Aided Engineering Drawing (1BCEDXX103/203).**

- Give more exercise on electrical drawing (branch oriented).
- Introduce conversion of isometric to orthographic views.
- Introduce ISO to orthogonal for all branches and vice versa.
- Introduce E-CAD for ECE students.

**7<sup>th</sup> Sem 2022 scheme**

**1. Computer Aided Manufacturing (BME701)**

- Introduce ERP Concepts in Module 1.
- Introduce cocept on cooling systems.
- If Possible, implement Software's for FMS.
- Add Maintenance and remote monitoring concept (Computer Aided Predictive Monitoring).
- Add Introduction to Agile Manufacturing in Module 5.

**2. Finite Element Method (BME702)**

- Add a concept on Analysis on Solid machine elements after Truss element in module 3.
  - Students should be able to do analysis of any elements irrespective of size, shape and geometry.
  - If Possible, try to include this subject in sem V considering current scenario.
  - Add FEA by Abel as reference book.
- 3. Finite Element Method and Analysis Lab (BMEL706)**
- Tell the concept of convergence.
  - Encourage the students to download (student's free version) and learn other software's.
  - Analysis of a 3D component through modelling in CAD software and analysis in ANSYS
  - One excursive can be compared for Outputs from two different software's.
  - Add Thermal + Structural Stress Numerical.
  - Pre stress analysis can be added.
  - Exercise on joints to be added.
  - One C- program of how the process runs in FEM can be implemented for better visualization.
- 4. Additive Manufacturing (BME703A)**
- Plan an industrial visit to have better exposure on subject.
- 5. Fluid Power Systems (BME703B)**
- Interested ones can work as a project on valves.
  - CMTI Handbook can be added.
  - Series of book by FESTO to be added in reference.
  - Some collaboration with Foremen Training Institute (FTI) can be made for better interaction and Learning.
  - Conduct an event like "Train the Trainer".
- 6. Organizational Behavior (BME703C)**
- Conduct some workshops on "How to Talk on Stage", "Body Language", "Eye Contact" etc.
  - Record and show the students for better understanding.
- 7. Combustion in IC Engines (BME703D)**
- Add air pollution and its control with new technology.
  - If possible, make this subject as general subject.
  - No need of automobile cross section in combustion of ICE, title can be changed.
  - Cruise control may be removed in Module 3.
  - Try to change the subject title.
- 8. IP and Innovation Management (BME703E)**
- No Changes.
- 9. Product Design Manufacturing (BME703F)**
- Add bench marking in Module 1.
  - Identify popular books on DFM and add.
  - Remove "No Numerical".
- 10. Innovative Product Development (BME704A)**
- Introduce PLCM with Software.
  - Demo should be given.
- 11. Supply Chain Management (BME704B)**
- Introduce ERP.
  - Invite companies for lecture demo/SDP's.

## **12. Fundamentals of Automotive Technology (BME704C)**

- Change the title (Fundamentals should not be in Open Elective)
- Module 1: keep it as “Type of Automation”.
- Module 5: Part of it can be added in Module 4.  
Add EV Technology and Battery Technology
- Module 3: Concept of vehicle dynamics to be introduced.
- Some homogenous conditions like noise controlled can be introduced.

## **8th Sem 2022 scheme: NPTEL**

- If possible, add subjects from course era if institute policy is agreed, else no changes needed.

## **3<sup>rd</sup> and 5<sup>th</sup> Sem**

- Approved-No changes needed.

## **Vision, Mission, PEO's and PSO's:**

- Accepted with no changes needed.

## Appendix – I

### List of members attended the meeting

Sl. No.	Name	Designation, Affiliation and contactdetails	Role
1.	Dr. Madhu M C	Assistant Professor and HoD, Dept. of ME	Chairperson
2.	Dr. Vijay Desai	Director, Research Department of Mechanical Engineering Nitte Meenakshi Institute of Technology (NMIT), Bangalore Mob: 9449332960 E-ID: vijayhdesai64@gmail.com	Member
3.	Dr. Rajashekar	Professor, Department of Mechanical Engineering UVCE, Bengaluru, KR Circle Email: rajashekar.uvce@gmail.com Mob: 9448709733	Member
4.	Dr. G V Naveen Prakash	Professor and HoD Department of Mechanical Engineering Vidyavardhaka College of Engineering, P.B. No.206, Gokulam III Stage, Mysuru - 570 002, Karnataka. Email: gvnp@vvce.ac.in Mob: 9964244314	Member (Attended Online)
5	Mr. Vivek	Development Manager, Hexagon Manufacturing Intelligence, Bengaluru, Mob: 9481784088 Email: vivek@hexagon.com	Member
6.	Dr. K. M. Sathish Kumar	Dean - Academics and Professor, Department of ME (Manufacturing)	Member
7.	Mr. TN PraveenKumar	Associate Professor, Department of ME (Manufacturing)	Member
8.	Dr. O. Gurumoorthy	Assistant Professor, Department of ME(Manufacturing)	Member
9.	Prof. Chandra Sekhara Reddy	Assistant Professor, Department of ME (Management)	Member
10.	Dr. G.L. Ananthakrishna	Assistant Professor, Department of ME (Design)	Member
11.	Dr. Keerthi Kumar. N	Assistant Professor, Department of ME (Thermal)	Convener
12.	Mr. Kiran. M. D	Assistant Professor. Department of ME (Design)	Member
13.	Mrs. S.Nithya Poornima	Assistant Professor	Invited Members

14.	Dr. G.Avinash	Assistant Professor	Invited Members
15.	Mr. Sundaresh S	Assistant Professor	Invited Members
16	Dr. Sripad Diwakar	Assistant Professor	Invited Members
17.	Dr. Nagamadhu	Assistant Professor	Invited Members
18.	Dr. Chethan D	Assistant Professor	Invited Members
19.	Dr. Srinidhi Acharya S R	Assistant Professor	Invited Members
20.	Dr. Majunath C	Assistant Professor	Invited Members
21.	Mr. Hitesh A	Student of VII semester	Invited Members
22.	Mr. Karthik H R	Student of VII semester	Invited Members
23.	Mr. Raj Surya	Student of VII semester	Invited Members



## Photos of the Meeting





