An online meeting of the Board of Studies of Mechanical Engineering was held on 01-10-2021 at 02:15 PM. The meeting was attended by the following members:

1.	Chairman, BOS	Prof. T. V. Arjunan Head, Dept. of Mechanical Engg.	Present
2.	Member, Academic Expert	Prof. S. Murugan Dept. of Mechanical Engg., NIT Rourkela	Present
3.	Member, BOS	Dr. Pankaj Kumar Gupta Assoc. Prof., Dept. of Mech. Engg.	Present
4.	Member, BOS	Mrs. Shweta Singh Asst. Prof., Dept. of Mech. Engg.	Present
5.	Member, Industry Expert	Mr. Vivek Singh, Executive Engineer, Damodar Valley Corporat Kodarma Thermal Power Station, Jharkhand	Present ion

The course syllabi for 3<sup>rd</sup> and 4<sup>th</sup> semesters of B.Tech. II Year as well was discussed. Furthermore, courses for Ph.D. work in the electives category were revised.

With the consent of all the members, the course scheme and syllabi for 3<sup>rd</sup> and 4<sup>th</sup> semesters in II year B.Tech. Mechanical Engineering was finalized, and new courses were added in the list of electives for Ph.D. course work. The following were the salient features discussed in the meeting:

- 1. In the course on Engineering Thermodynamics in 3<sup>rd</sup> semester, the sequence of Modules was slightly altered without adding/deleting any content.
- 2. The total number of classes for teaching the B.Tech. courses was changed according to 14 weeks of working in both semesters.
- 3. The name of Manufacturing Science course was changed to Manufacturing Technology.
- 4. In the scheme of courses, all courses were re-typed in Sentence case changing from all Caps.
- 5. The Professional Electives offered in IV semester was dropped to equip students with fundamental core subjects. It was suggested to offer Professional Electives from the III year onwards.
- 6. The following list of courses were suggested to be included in the Electives category for Ph.D. course-work:
  - (a) Systems Engineering
  - (b) Advanced IC Engines Technology
  - (c) Fuel Cell and Electric Vehicle Technology
  - (d) Energy in Buildings
  - (e) Noise, Vibration & Harshness
  - (f) Waste Minimization Techniques and Applications
  - (g) Robotics
  - (h) Energy Modeling and Simulation

- (i) Vibration and Control
- (j) Energy Modeling & Policy Analysis
- (k) Energy Resource & Modeling
- (I) Renewable Energy

(m)Industrial Automation & Controls

 It was suggested to combine the Courses – Solar Energy Engineering & Applications and Design of Solar Thermal Systems into one course.

These changes shall be effective from Academic session 2021-2022.

The detailed Scheme of Credits and Syllabi in the 3<sup>rd</sup> and 4<sup>th</sup> semesters of II year B.Tech. (Mechanical Engineering) courses and in Ph.D. course work is attached herewith for reference.

Prof. T. V. Adunan

Chairman, BOS

Dr.Pankaj K. Gupta Member, BOS

Mrs. Shweta Singh

Member, BOS

Engineering

Prof. S. Murugan Academic Expert Email Consent Given



# **Re: Approval of the BOS minutes**

### vivek singh <vivek.singh.dvc@gmail.com>

Fri, Nov 19, 2021 at 3:08 PM

To: Pankaj Kumar Gupta <pankajkgupta@gmail.com>

Cc: s murugan <murugans@nitrkl.ac.in>, muruganresearch@yahoo.com, "T.V.Arjunan" <arjun\_nivi@yahoo.com>

Dear sir,

The attcahed sylabus of M Tech. machine design and B Tech. 2nd year had been checked and found OK. Approval from my end is accorded.

With Regards Vivek Singh Sr. Divisional Engg. (M) DVC KTPS

An online meeting of the Board of Studies of Mechanical Engineering was held on 30-10-2021 at 02:30 PM. The meeting was attended by the following members:

1.	Chairman, BOS Present	Prof. T. V. Arjunan
		Head, Dept. of Mechanical Engg.
2.	Member, Academic Expert Present	Prof. S. Murugan
		Dept. of Mechanical Engg., NIT Rourkela
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		Asst. Prof., Dept. of Mech. Engg.
5.	Member, Industry Expert Present	Mr. Vivek Singh,
		Executive Engineer, Damodar Valley Corporation Kodarma Thermal Power Station, Jharkhand

The scheme and course syllabi for M.Tech. (Machine Design) was discussed. With the consent of all the members, the course scheme and syllabi for M.Tech. (Machine Design) was finalized under guidelines in AICTE Model curriculum (2018), and new courses were added/modified in the list of electives. The following were the salient features discussed in the meeting:

- 1. Computer Aided Design course was suggested to be renamed as Advanced CAD with advanced topics included, such as introduction to Finite Element analysis.
- 2. The course content for Tribology now includes topics pertaining to Surface Engineering, and therefore, the course is renamed to Tribology and Surface Engineering.
- 3. A topic on Experimental uncertainty analysis was added in the course on Design and Analysis of Experiments.
- 4. New courses on Design of Thermal Systems, Computational Fluid Dynamics and Noise, Vibration & Harshness were added in department electives due to their increasing role in Design involving multi-physics phenomena.
- 5. A course on Research methodology & IPR is included.

These changes shall be effective from Academic session 2021-2022.

The detailed Scheme of Credits and Syllabi of M.Tech. (Machine Design) courses is attached herewith for reference.

Prof. T. V. Arjunan Chairman, BOS

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Dr.Pankaj K. Gupta Member, BOS

30/10/2021

Mrs. Shweta Singh Member, BOS

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