# School of Technology, Pandit Deendayal Energy University, Gandhinagar Department of Mechanical Engineering

Minutes of the meeting of the Board of Studies in Mechanical Engineering which was held on 13.11.2024 from 02:00 pm onwards via hybrid mode at CD Cell Conference Room, E-Block, Ground Floor and on MS Teams Platform in the presence of the following members:

#### **A.** Members Present:

Sr. No.	Name	Sr. No.	Name
1	Dr. Jatin Patel – Chairman, BoS and Head, Dept.	7	Dr. Vivek Patel, Professor, Dept. of
	of Mech. Engg., SoT, PDEU		Mech. Engg., SoT, PDEU
2	Dr. Dilip Srinivas Sundaram, Associate Professor,	8	Dr. Jaydeep Patel, Assistant Professor,
	Mechanical Engineering, Indian Institute of		Dept. of Mech. Engg., SoT, PDEU
	Technology Gandhinagar. (External Expert-		
	Academic)		
3	Dr. Shailendra Kumar, Professor, Department of	8	Dr. Krunal Mehta, Assistant Professor,
	Mechanical Engineering, S.V. National Institute		Dept. of Mech. Engg., SoT, PDEU
	of Technology, Surat (External Expert-		
	Academic)		
4.	Dr. Ravi Varma, Scientist/Engineer-SF, Space	9	Dr. Hiren Dave, Assistant Professor, Dept.
	Applications Centre (SAC), Indian Space Research		of Mech. Engg., SoT, PDEU
	Organization (ISRO)		
5	Dr. Ankush Sharma, Scientific Officer,	10	Dr. Ravi Kant, Assistant Professor, Dept.
	Ahmedabad Textile Industry's Research		of Mech. Engg., SoT, PDEU
	Association (ATIRA) (External Expert-Industry)		
6	Prof. Anurag Mudgal, Professor, Dept. of Mech.	11	Dr. Ojas Satbhai, Assistant Professor,
	Engg., SoT, PDEU		Dept. of Mech. Engg., SoT, PDEU

Alumni invitees Mr. Pratik Patel and Mr. Arrown Dalsaniya could not attend the meeting.

At the beginning of the meeting, the Chairman greeted and welcomed all the members. Thereafter, the items on the agenda were taken on hand as under:

1.

Consideration of confirmation of minutes of the previous meetings held on 16.04.2024.

### **Resolution:**

Resolved that the minutes of the previous meeting held on 16.04.2024 be confirmed as circulated with the agenda.

2. Consideration of the note on action taken on the decisions of the previous meeting held on 16.04.2024.

### **Resolution:**

Resolved that the note on action taken on the decisions of the previous meeting held on 16.04.2024 circulated with the agenda as Encl.-II, be noted and approved.

3. Consideration of new open electives in Curriculum 2024 for B. Tech. Mechanical Engineering program and proposal to make it effective from the AY 2024-25.

# **Resolution:**

Resolved to recommend to the Faculty of Engineering & Technology with regard to Introduction of new open electives of Semester - IV of the B. Tech. programs of FoET (except B. Tech. Mechanical Engineering) in supersession of existing curriculum, to be made effective from the academic year 2024-25 onwards, be approved as per Encl.-III circulated with the agenda, with the following suggestions:

- i. A new course on 'Principles of Solidifications' was proposed to be offered as Open Elective in Semester - IV. The content of the course was appreciated by the external experts. It was suggested to offer the course in 6<sup>th</sup> semester rather than 4<sup>th</sup> semester as the course contains topics from subjects like Heat and Mass Transfer, Material Technology etc. Considering the structure of the open elective course and content of the subject, it was suggested to allocate some project to the students based on their engineering disciplines.
- A new course on 'Computation and Data Driven Methods' was proposed ii. to be offered as Open Elective in Semester - IV. It was suggested to refine the course objectives further as well as to include topics based on various numerical methods in the proposed curriculum.

In view of the above, the Chairman, be authorized to submit the revised documents incorporating the suggestions directly to the Faculty of Technology & Engineering for further consideration.

4. Consideration of modifications/addition/deletion of minor courses offered by Department of Mechanical Engineering and proposal to make it effective from the AY 2024-25.

### **Resolution:**

Resolved to recommend to the Faculty of Engineering & Technology with regard to addition of contents in Syllabi of Semesters - III, and introduction of new courses and deleting the previous course in semester V and VI of the Minor programs offered by Mechanical Engineering Department of FoET (except B. Tech. Mechanical Engineering) in supersession of existing curriculum, to be made effective from the academic year 2024-25 onwards, be approved as per Encl.-IV circulated with the agenda, with following suggestions.

- i. In reference of inclusion of few new topics in the course "Introduction to Robotics (23MSME201T)" being offered in Semester III, it was suggested to include some hardware development to have the practical implementation of the topics covered in the subject.
- ii. A theory course on "Microprocessor & Embedded Systems (23MSME301T)" and Laboratory course on "Microprocessor & Embedded Systems (23MSME301P)" is deleted from Semester V. Also, theory course on "Control of Robotics System (23MSME302T)" is deleted from Semester VI.
- ii. A new theory course on 'Modelling and Control of Robotic Systems" and new Laboratory course on "Modelling and Control of Robotic Systems" was proposed to be offered in Semester V. Also, new theory course "Machine learning for Robotics" was proposed in Semester VI. The BoS members found content of the subject in-line with the recent trends of development in the domain of robotics. It was suggested to include some topics based on application of control system engineering in robotics in the proposed curriculum.

In view of the above, the Chairman, be authorized to submit the revised documents incorporating the suggestions directly to the Faculty of Technology & Engineering for further consideration.

5. Consideration of addition of new elective course for M.Tech (Mechanical Engineering) programs in Department of Mechanical Engineering and proposal to make it effective from the AY 2024-25.

#### **Resolution:**

Resolved to recommend to the Faculty of Engineering & Technology with regard to Introduction of new elective course of the M.Tech (Mechanical Engineering) program in supersession of existing curriculum, to be made effective for the students admitted in the academic year 2024-25 onwards be approved as per Encl.-V circulated with the agenda, with following suggestions:

- i. No suggestion on the course "Additive Manufacturing Process"
- 6. Consideration of addition of new courses for Ph.D. programs in Department of Mechanical Engineering and proposal to make it effective from the AY 2024-25.

#### **Resolution:**

Resolved to recommend to the Faculty of Engineering & Technology with regard to Introduction of new course of the Ph.D. program in supersession of existing curriculum, to be made effective for the students admitted in the academic year 2024-25 onwards be approved as per Encl.-VI circulated with the agenda, with following suggestions:

- ii. It was suggested for the course on "Advanced Refrigeration' that the course name should "Advanced Refrigeration and Air-Conditioning".
- iii. No suggestion on the course "Experimental Methods and Optimization"

In view of the above, the Chairman, be authorized to submit the revised documents incorporating the suggestions directly to the Faculty of Technology & Engineering for further consideration.

6. Consideration of review of the feedback received from various stakeholders for the curriculum 2024.

### **Resolution:**

Resolved that the feedback received from various stakeholders were reviewed. However, the Chairman informed that the suggestions are already incorporated.

7. Any other item with the permission of the Chair.

# **Resolution:**

The Chairman invited the members to put forth any other suggestions for improving the teaching-learning process. As the entire curriculum is revised recently, no significant suggestions were received from any BoS members.

The meeting ended with a vote of thanks and refreshments.

Dr. Jatin Patel

Chairman,

**BoS** - Mechanical Engineering.