

Department of Mechatronics Engineering

Minutes of the Meeting of Board of Studies (BoS) of Mechatronics Engineering Department, which was held on 22nd January 2021 at 11.30 AM on Zoom online platform.

The following members were present

1. Dr. Alka Mahajan, Dean, MPSTME, NMIMS University
2. Dr. Vaishali Kulkarni, Associate Dean, MPSTME
3. Prof. Vinod Jain, HoD, Mechatronics Engineering Department, MPSTME
4. Mr. Bhuvan Damahe, Industry Expert
5. Mr. Aslam Adam, Industry Expert
6. Dr. Asha Ingle, HoD, Mechanical Engineering Department, MPSTME
7. Prof. Sawankumar Naik, Assistant Professor, Mechanical Engineering department, MPSTME
8. Prof. Chetna Sharma, Assistant Professor, Mechatronics Engineering Department, MPSTME
9. Prof. Ainal Azeez, Assistant Professor, Mechatronics Engineering Department, MPSTME

Leave of absence is granted to following members

1. Dr. Prasanna S. Gandhi, Academic Expert
2. Dr. Archana Bhise, Associate Dean, MPSTME
3. Dr. Avinash More, HoD, EXTC Department, MPSTME

The agenda of the meeting was taken into consideration as under: -

Item No		Particulars
1		RESOLUTION: Resolved that the minutes of the previous meeting held on 12 th November 2019 are confirmed.
2		RESOLUTION: Resolved that the action taken on the decision of the previous meeting held on 12 th November 2019 be noted.
3	(i)	RESOLUTION: Resolved to recommend to the Academic Council with regard to revision in the curricula of B Tech (Mechatronics Engineering) by way of introduction of Structure of Semester I to VIII in supersession of existing curricula, to be made effective for the students admitted from academic year 2021-22 and direct second year students admitted from the academic year 2022-23 onwards, be approved as per (Encl-1).
	(ii)	RESOLUTION: Resolved to recommend to the Academic Council with regard to revision in the curricula of B Tech (Mechatronics Engineering) by way of introduction of Teaching & Examination Scheme of Semester I & II in supersession of existing curricula, to be made effective for the students admitted from academic year 2021-22 and direct second year students admitted from the academic year 2022-23 onwards, be

	approved as per (Encl-2).
(ii)	<p>RESOLUTION: Resolved to recommend to the Academic Council with regard to revision in the curricula of B Tech (Mechatronics Engineering) by way of introduction of Teaching & Examination Scheme and Syllabi of Semester VII & Semester VIII in supersession of existing curricula, to be made effective for the students admitted in the AY 2018-19 onwards and D to D students admitted in the AY 2019-20 onwards, <u>be approved</u> as per (Encl-3), circulated with the agenda, with a suggestion that the Teaching & Examination Scheme be revised and the suggestions made by the members be incorporated in the syllabus. Justification for the same is given in enclosure.</p> <p>a. "Internet of things (IoT)" to be introduced in 4th year Semester VII as Open Elective - 1.</p> <p>b. Revision in teaching scheme of "Bio-Mimicry"(Professional Elective Course-7) in 4th year Semester VIII - Theory 2 Hrs., Practical 2 Hrs., Tutorial 1 Hr. with 4 credits.</p> <p>In view of the above, the Chairperson, <u>be authorized</u> to submit the revised documents directly to the Academic Council for further consideration</p>



Chairperson
Dean, Board of Studies



Minutes of the Meeting of Board of Studies (BoS) of Mechatronics Engineering Department, was held on April 24 2021 at 11.00 AM on ZOOM online meeting platform.

The following members were present:

1. Dr. Prasanna Gandhi, Professor, Department of Mechanical Engineering, IIT Bombay
2. Mr. Bhuvan Damahe, Joint General Manager, L&T, Mumbai
3. Dr. Vaishali Kulkarni, Associate Dean, MPSTME, Mumbai
4. Dr. Archana Bhise, Associate Dean, MPSTME, Mumbai
5. Prof. Vinod Jain, HoD, Department of Mechatronics Engineering, MPSTME, Mumbai
6. Dr. Asha Ingle, HoD, Department of Mechanical Engineering, MPSTME, Mumbai
7. Dr. Avinash More, HoD, Department of Electronics & Telecommunication Engineering, MPSTME, Mumbai
8. Dr. Venkatesh Deshmukh, Professor, Department of Mechanical Engineering, MPSTME, Mumbai
9. Prof. Sawankumar Naik, Department of Mechanical Engineering, MPSTME, Mumbai
10. Prof. Ainal Abdul Azeez, Department of Mechatronics Engineering, MPSTME, Mumbai
11. Prof. Chetna Sharma, Department of Mechatronics Engineering, MPSTME, Mumbai

Leave of absence is granted to the following member:

1. Dr. Alka Mahajan, Dean, MPSTME, NMIMS University
2. Mr. Aslam Adam, Project Lead, Chrysler Group, Detroit, USA

1. The BoS members confirmed the minutes of meetings of Board of Studies in Mechatronics Engineering held on 22nd January, 2021.
2. The BoS members considered and deliberated upon the revision in the curricula of B. Tech. in Mechatronics Engineering. They approved the following:
 - (A) The revision of Teaching & Examination Scheme of Semester III and IV for the batch admitted in 2020-21 and direct second year students admitted in the academic year 2021-22 **(Encl.- I)**
 - (B) The revision of Syllabi of the courses of Semester III and IV for the batch admitted in 2020-21 and direct second year students admitted in the academic year 2021-22. **(Encl.- II)**

Following suggestions are given by the BoS:

- i. Realistic Application for Fourier transform and Z transforms to be included in the syllabus of "Transforms and Series" of semester III.
- ii. Linear and Angular momentum to be included in the syllabus of "Applied Statics & Dynamics" in semester III.
- iii. Bifurcate 1st unit into two with maximum time allocated to logic circuits & K maps in the syllabus of "Introduction to Digital Systems" in semester III. Specific application to be added in combinational logic circuits. New editions in the Text books to be added.

Total units now are 6

SVKM's NMIMS Deemed-to-be University
Mukesh Patel School of Technology Management and Engineering 1

Reduce number of hrs in Unit1 to 03 Hrs

New unit 2 (k-maps) can be 04 hrs

Increase hrs in Unit 4 and Unit 6

- iv. Unit 3, "Abrasive machining processes" to be replaced with joining processes, welding, soldering and riveting in the syllabus of "Manufacturing Processes" in semester III. The geometry of cutting tool to be included in Unit 4, "Machining Operations".
- v. Applications of Diode (eg. SMPC/Linear Mode Power supply, Mobile charging), BJT and CMOS to be included in the syllabus of "Electronic Systems" in semester III. CMOS Tristate Inverter to be included. Reduce characteristics of BJT and CMOS and include mechatronic applications.
Practicals to include applications instead of CMOS/BJT/Diode characteristics.
- vi. Units 3 & 5 to be allocated 8 hours each in the syllabus of "Fluid Mechanics & Machinery" in semester III. Navier Stokes applications to be included.
- vii. Digital twin to be included in the list of experiments in the syllabus of "Fundamentals of Control Systems" in semester IV.
- viii. Full revamping to be done in the syllabus of "Microprocessor Systems and Interfacing" in semester IV. To include architecture, remove specific microprocessor and its assembly language and hardware interfacing from mechatronic perspective.
- ix. Simple experiments on temperature control to be included in the syllabus of "Thermodynamics & Heat Transfer" in semester IV

Action taken: All the suggestions are incorporated in syllabi (Encl.- II MTRX 1 to 45)

(C) The revision of Teaching and Examination Scheme of Semester VII to VIII for the batch admitted in 2018-19 and direct second year students admitted in the academic year 2019-20 (Encl.- III)

(D) The revision of Syllabi of the courses in Semester VII and VIII for the batch admitted in 2018-19 and direct second year students admitted in the academic year 2019-20 (Encl.- IV)

Alke Mahajan



Chairperson
Dean, Board of Studies