

**VIGNAN'S**

Foundation for Science, Technology &amp; Research

(Deemed to be University)

Estd. u/s 5 of UGC Act 1956

## DEPARTMENT OF MECHANICAL ENGINEERING

### CIRCULAR

Date: 18.03.2024

Department of Mechanical Engineering is going to conduct Board of Studies (BoS) meeting for the B.Tech., in Mechanical Engineering Programme on **24.03.2024** from 10.00 am in blended mode. The venue of the meeting is AGF-06, Seminar Hall, Department of Mechanical Engineering, U-Block, VFSTR, Vadlamudi. The online ZOOM platform link for the meeting is <https://us02web.zoom.us/j/3345612384>. All the members are requested to make it convenient to attend the meeting.

#### The members are

S.No	Details of the Member	Designation
1	Mr. T Ch Anil Kumar, Assistant Professor and Head of the Department	Chairperson
2	Dr. M Ramakrishna, Professor	Member
3	Dr. K Venkat Rao, Professor and Dean R&D Nominee	Member
4	Dr. D Satyanarayana, Professor	Member
5	Dr. B Nageswara Rao, Professor	Member
6	Dr. G Suresh, Officiating Professor	Member
7	Dr. Y Jyothi, Associate Professor	Member
8	Dr. Faiyaz Ahmed, Assistant Professor	Member
9	Mr. E Govindarajulu, Assistant Professor	Member
10	Dr. Sk Farooq, Assistant Professor, School Dean Nominee	Member
11	Mr. Suroju Ramakrishna, D-EVA, Principal Consultant, Tech Mahindra, Pune	External Member
12	Dr. Jayabal K, Associate Professor, Department of Mechanical Engineering, IIITDM, Kancheepuram	External Member
13	Mr. N B Prakash T, Assistant Professor, HoD Nominee	Member Secretary

#### Agenda of the BoS Meeting:

1. To Discuss and finalize the revised curriculum structure and detailed syllabus of B.Tech., Mechanical Engineering Programme for the regulation 2022.
2. To approve the revised R22 curriculum and syllabus of B.Tech., Mechanical Engineering Programme and recommend to the Academic council.
3. Approval of change in L-T-P structure, No. of credits or contents of existing courses.
4. Approval of NPTEL courses.
5. Any other points, if required.

  
Chairperson

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## DEPARTMENT OF MECHANICAL ENGINEERING

Date: 24.03.2024

### Minutes of Board of Studies Meeting

Board of Studies (BoS) meeting of B.Tech., Mechanical Engineering programme was conducted on 24.03.2024 in blended mode from 10.00 am to 1.00 pm. The venue of the meeting is AGF-06, Seminar Hall, Department of Mechanical Engineering, U-Block, VFSTR, Vadlamudi.

The ZOOM online link for the meeting is <https://us02web.zoom.us/j/3345612384>.

#### **Agenda of the BoS Meeting:**

1. To Discuss and finalize the revised curriculum structure and detailed syllabus of B.Tech., Mechanical Engineering Programme for the regulation 2022.
2. To approve the revised R22 curriculum and syllabus of B.Tech., Mechanical Engineering Programme and recommend to the Academic council.
3. Approval of change in L-T-P structure, No. of credits or contents of existing courses.
4. Approval of NPTEL courses.
5. Any other points with the permission of Chairperson.

The following members were present either through offline or online.

S.No	Details of the Member	Designation
1	Mr. T Ch Anil Kumar, Assistant Professor and Head of the Department	Chairperson
2	Dr. M Ramakrishna, Professor	Member
3	Dr. K Venkat Rao, Professor and Dean R&D Nominee	Member
4	Dr. D Satyanarayana, Professor	Member
5	Dr. B Nageswara Rao, Professor	Member
6	Dr. G Suresh, Officiating Professor	Member
7	Dr. Y Jyothi, Associate Professor	Member
8	Dr. Faiyaz Ahmed, Assistant Professor	Member
9	Mr. E Govindarajulu, Assistant Professor	Member
10	Dr. Sk Farooq, Assistant Professor, School Dean Nominee	Member
11	Mr. Suroju Ramakrishna, D-EVA, Principal Consultant, Tech Mahindra, Pune	External Member
12	Dr. Jayabal K, Associate Professor, Department of Mechanical Engineering, IITDM, Kancheepuram	External Member
13	Mr. N B Prakash T, Assistant Professor, HoD Nominee	Member Secretary

Chairperson Mr. T Ch Anil Kumar, Assistant Professor and Head, Department of Mechanical Engineering, VFSTR opened the meeting by welcoming and introducing the external members, invitees to the internal members. Chairperson presented about revised R22 courses followed by courses offered to students in NPTEL category.

**The following points were discussed in the BoS meeting:**

1. Revised course structure for R22 is discussed
2. Credits for Basic sciences is increased to 30 Credits out of 160 credits
3. Introducing of Field projects in II-year & continuation of projects in III-year
4. Relative grading with modified – qualifying criteria
5. Courses list is proposed from NPTEL

**The following resolutions made after the discussion:**


1. BoS Members approved the revised R22 regulations, curriculum structure, syllabus of B.Tech., Mechanical Engineering programme and it follows based on the NEP 2020. Curriculum structure is provided in Appendix-I.
2. Major restructuring has taken place in the curriculum which is oriented towards continuous learning and assessment based on Module structure.
3. Stakeholders feedback is analyzed thoroughly and the curriculum follows the choice based credit system (CBCS).

Based on the suggestions given by the members, the Chairperson of BoS told that, those fruitful suggestions would be incorporated appropriately in the curriculum and syllabi of the revised regulation R22 and this will be recommended to the Academic Council of VFSTR for the approval.

There being no further points for discussion, the Chairperson thanks all the external, internal, invited members and announced that the meeting was adjourned.



Member Secretary

  
Chairperson

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**DEPARTMENT OF MECHANICAL ENGINEERING****APPENDIX I****B. Tech in Mechanical Engineering Programme: Curriculum Structure  
I Year I Semester**

<b>Course Title</b>	<b>C</b>	<b>Course category</b>
Mathematics – I / Mathematics – II	4	Basic Sciences
Physics / Chemistry	4	Basic Sciences
Basic of Electrical & Electronics Engineering/ Engineering Graphics	3	Basic Engineering
Programming in C	3	Basic Engineering
English Proficiency & Communication Skills (PET)	1	Humanities
IT Tools & Cyber security	2	Basic Engineering
Environmental Studies / Management Studies	3	Basic Sciences / Humanities
<b>Total</b>	<b>20</b>	

**I Year II Semester**

<b>Course Title</b>	<b>C</b>	<b>Course category</b>
Mathematics – II / Mathematics – I	4	Basic Sciences
Physics / Chemistry	4	Basic Sciences
Basic of Electrical & Electronics Engineering/ <b>Engineering Graphics</b>	3	Basic Engineering
Competitive coding	3	Basic Engineering
Technical English Communication	3	Humanities
Environmental Studies / Management Studies	3	Basic Sciences / Humanities
<b>Total</b>	<b>20</b>	

## II Year I Semester

Course Title	C	Course category
Maths – 3 (Dept. Specific) / P&S	4	Basic Sciences
Data Structures and Algorithms	4	Basic Engineering
Classical Mechanics) (MB & GS)	3	Basic Sciences
Materials Science & Metallurgy	4	Professional core
Engineering Thermodynamics	4	Professional core
Manufacturing Sciences	4	Professional core
Design Thinking & Engineering Orientation (GS & MB)	1	Basic Engineering
Total	24	

## II Year II Semester

Course Title	C	Course category
Maths – 3 (Dept. Specific) / P&S	4	Basic Sciences
Practicing Data Structures	1	Basic Engineering
Field projects / IDP	1	Project
Strength of Materials	4	Professional core
Mechanics of Fluids & Hydraulic Machines	4	Professional core
Machining Science & Technology	4	Professional core
Open Elective – 1 (NPTEL)	3	Open Elective
Total	21	

### III Year I Semester

Course Title	C	Course category
Soft Skills Laboratory	1	Humanities
Analysis of Mechanisms and Machines	4	Professional core
Applied Thermodynamics	4	Professional core
Department Elective – 1	4	Department Elective
Department Elective – 2	3	Department Elective
Open Elective – 2	3	Open Elective
Industry interface course (Modular course)	1	Department Elective
BEC Certification	1	Humanities
Total	21	

### III Year II Semester

Course Title	C	Course category
Quantitative aptitude & Logical reasoning	2	Humanities
Design of Machine Components	4	Professional core
Operations Research	4	Professional core
Heat Transfer	3	Professional core
Department Elective – 3	4	Department Elective
Open Elective – 3	3	Open Elective
Field projects / IDP	1	Project
Total	21	

#### IV Year I Semester

Course Title	C	Course category
Professional ethics	2	Humanities
Finite Element Analysis	4	Professional core
Department elective – 4	4	Department Elective
Robotics and Automation	3	Professional core
Department Elective – 5	4	Department Elective
Department Elective – 6	4	Department Elective
Total	21	

#### IV Year II Semester

Course Title	C	Course category
Internship / Project Work	12	Project
Total	12	

#### List of NPTEL Courses

Course Name	NPTEL Course ID
Advanced Machining Process	Noc24_me72
Machinery Fault Diagnosis and Signal Processing	Noc24_me45
Power Plant System Engineering	Noc24_me57

  
Chairperson