



## Department of Mechanical Engineering

### Sixth Board of Studies meeting

Date | Time:- 20.01.2022 | 1.30 pm to 03.30 pm

Platform:- Google Meet

Link particulars:-

<https://meet.google.com/hpz-ghtj-zce>

Chaired by

Dr.I.NeethiManickam,

Professor and Head of the Department, FXEC.

Members Present: -

- 1.Dr.A. Krishnaveni, Professor, GCE, Tirunelveli, Anna University Nominee
- 2.Dr.R. Sudhakarpandian, Associate Professor, VIT University, Expert Member Other than Parent University
3. Mr. Arul Marcel Moshi M.E., (Ph.D), Assistant Professor, NEC ,(Alumini

### Internal Members

1. Dr.I.Neethi Manickam, Professor | Mechanical | FXEC,
2. Dr.L.R Priya, Professor(Academics)| ECE | FXEC
3. Dr.G.Rajakumar, Professor(CoE)| ECE | FXEC
4. Dr. Zeenathul Farida Abdul Gani, Professor | Mechanical | FXEC,
5. Dr. R. Samuel Hansen, Professor | Mechanical | FXEC,
6. Dr.M.Kannan,Professor | Mechanical | FXEC
7. Dr.K.Senthilkumar, Associate Professor | Mechanical | FXEC,
8. Dr.S.Balakrishnan, Assistant Professor | Mechanical | FXEC
9. Dr.Anix Joel Singh, Assistant Professor | Mechanical | FXEC
10. Dr.R.KA Bhalji, Assistant Professor | Mechanical | FXEC
11. Dr.K.Vinukumar, Assistant Professor | Mechanical | FXEC
12. Mr.M.Ayyanar Raja, Assistant Professor | Mechanical | FXEC,
13. Mr.K.Ariyanayagm, Assistant Professor | Mechanical | FXEC,
14. Mr.S.Thanumalaya Perumal, Assistant Professor | Mechanical | FXEC,
15. Mr. K.Robinston Jeyasingh, Assistant Professor | Mechanical | FXEC,
16. Mr. S.Sheikh Sulaiman, Assistant Professor | Mechanical | FXEC,
17. Mr. J.Jeremy Jeba Samuel, Assistant Professor | Mechanical | FXEC,
18. Mr.R.Rahesh, Assistant Professor | Mechanical | FXEC,
19. Mr.M.Saravana Kumar, Assistant Professor | Mechanical | FXEC.
20. Mr.M.Subash Narendra, Assistant Professor | Mechanical | FXEC

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**Agenda**

Item No.	Particulars
Item : 1	R2021 - Revision of syllabus upto 4th Semester
Item : 2	R2021 - Introduction of syllabus for 5th semester Professional Core Courses
Item : 3	R2021 - Introduction of syllabus for 6th semester Professional Core Courses
Item : 4	R2019 - M.E (ISE) Syllabus upto 4 <sup>th</sup> Sem - Revision required if any

**VI - Board of Studies (BoS) Meeting Minutes**

S.No.	Minutes - Comments
<b>Item : 1R2021 - Revision of syllabus upto 4th Semester</b>	
1.1	In Engineering Thermodynamics Course, under the Unit 3 Properties of Pure Substances, the cycle improvement methods topics can be renamed as Cycle Efficiency Improvement Methods.
1.2	In Engineering Materials and Metallurgy Course, under the Unit 2 Heat Treatment, instead of mentioning as Surface treatment process, techniques which are planned to taught to the students in surface treatment process can be mentioned.
1.3	In Fundamentals of Electrical and electronics course, Unit 4 Electronic Circuits are replaced with Electrical drives and characteristics unit that is a prerequisite for mechatronics course.
<b>Item : 2R2021 - Introduction of syllabus for 5th semester Professional Core Courses</b>	
S.No.	Minutes - Comments
2.1	In Dynamics of Machine Course, CO-PO Mapping and Concept Mapping need to revised.
2.2	In Mechatronics System Course, unit 1 title can be renamed to Introduction to Mechatronics and Hydraulic System, instead of Introduction and Hydraulic



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	System
2.3	In CAD/CAM Course, the 9 <sup>th</sup> lab experiment "Demonstration of parametric modelling using simple components" can be updated as "Demonstration of equation driven modelling of simple components (Connecting Rod, Spur Gear).
<b>Item :3R2021 - Introduction of syllabus for 6th semester Professional Core Courses</b>	
<b>S.No.</b>	<b>Minutes - Comments</b>
3.1	In Sixth Semester, Applications of Finite Element Analysis course title can be changed to Finite Element Analysis
3.2	In Total Quality Management and Reliability Course, Occupation Safety and Health Administration topic can be removed from the Unit 1 - Quality: Introductory Concepts.  In Total Quality Management and Reliability course, Corrective and Preventive actions with examples topic from unit 2 TQM Techniques can be updated as corrective and preventive maintenance actions with examples.  In Total Quality Management and Reliability Course, the Course Outcome 5 <sup>th</sup> statement "Design systems with a focus on enhancing reliability" can be reframed Since the unit contents are introductory concepts of reliability.
3.3	In Finite Element Analysis Laboratory Course, Under Static Structural Analysis - Stress analysis of axisymmetric components can be updated with specific axisymmetric components  In Finite Element Analysis Laboratory Course, Suggestions given for to include specific mechanical parts in Modal Analysis of a Mechanical parts experiment.
<b>Item : 4 R2019 - M.E (ISE) Syllabus upto 4<sup>th</sup> Sem - Revision required if any</b>	
4.1	In M.E (ISE) syllabus upto 4 <sup>th</sup> Semester, no revision has been proposed

*NMM*

Chairman,  
Board of Studies

**V - Board of Studies Meeting Minutes And Action Plan**

S.No	Recommendation and comments	Action	Reference
1.	Assessment method for minor professional course need to be mentioned in the syllabus. (For Example Number of Assessment and FATs)	Assessment method for minor professional courses mentioned in the syllabus.	The changes were made in R2019 Additive Manufacturing Syllabus
2.	The course category for additive manufacturing suggested as "AM".	The course codes are changed as 19MEAM01, 19MEAM02, 19MEAM03, 19MEAM04, 19MEAM05	The changes were made in R2019 Additive Manufacturing Syllabus
3.	The syllabus of industrial frontier tools was presented and accepted by members and recommended for reframing the assessment methods.	Reframed the assessment methods	The changes were made in R2019 Syllabus of Industrial frontier tools
4.	Recommended offering both C language and python language	C programming included in I semester (3 credit) Python included in II semester (3 credit)	The changes were made in R2021 Syllabus. (Page No 9)
5.	Suggested incorporating model questions for the COs to clarify their blooms (cognition) level.	Model questions for COs and Blooms level included.	The changes were made in R2021 Syllabus.
6.	Computer Aided Engineering Graphics course appears to be excessive in theory contents and the hour allocation are disproportionate.	Presently L T P 2 0 4	The changes were made in R2021 Syllabus. (Page No 93)
7.	Suggestive assessment components for computer engineering graphics course are 30% from assignments, 20% Model Exam, 50 % ESE Practical	Included	The changes were made in R2021 Syllabus. (Page No 93)

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8.	In Engineering Practices lab, Civil to be provided with proportionate mixture of concrete for building construction	Study of basic construction materials, masonry and concretes - included	The changes were made in R2021 Syllabus. (Page No 58)
9	Engineering Thermodynamics objectives to be reframed along with outcomes. Also, Rankine cycle to be included in the Unit III.	Included	The changes were made in R2021 Syllabus.
10	Surface treatment topics to be included in Engineering Materials and Metallurgy.	Included in Unit - II	The changes were made in R2021 Syllabus.
11	The syllabus for Fluid Mechanics and Machinery course can be framed by considering compressible flow also.	In FMM, Compressible flow could not be incorporated into syllabus.	
12	In Strength of Materials course, the Thick cylinder topic to be included.	Included in Unit - V	The changes were made in R2021 Syllabus.
13	Refrigeration topic to be included in Unit V of Thermal Engineering course.	Included	The changes were made in R2021 Syllabus.
14	Demonstration of turbine and steam generator to be included in Thermal Engineering laboratory course.	Since the experimental setup is available, experiments are added.	The changes were made in R2021 Syllabus.
15	The order of units to be reshuffled with Numerical Methods topics at first, followed by Probability and Statistics topics and finally DOE topics.	Changed accordingly in the course Probability and Statistical Analysis	The changes were made in R2021 Syllabus.
16	Inclusion of course creator name in the syllabus to be considered for bringing more accountability.	Included	Course Designers included for all courses.

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## Department of Mechanical Engineering

### Minutes of the Sixth Board of Studies meeting Approval

The meeting minutes of Sixth Board of Studies of the Department of Mechanical Engineering, Francis Xavier Engineering, Tirunelveli, held on 20-01-2022 at 1.30 pm is approved.

#### Members:

Sl.No.	Members as per UGC norms	Members nominated	Signature
1.	Head of the Department concerned (Chairman)	Dr. I. Neethi Manickam Professor and Head Department of Mechanical Engineering Francis Xavier Engineering College Tirunelveli	
2.	One Expert nominated by the Vice Chancellor from a panel of six recommended by the college Principal	Dr. A. Krishnaveni Professor Department of Mechanical Engineering, Government College of Engineering, Tirunelveli.	Dr. A. KRISHNAVENI, M.E, Ph.D., MISTE. Professor (CAS) Dept. of Mechanical Engineering Govt. College of Engineering Tirunelveli-627 007.
3.	Experts in the subject from outside the college nominated by the academic council	Dr. V. Senthil Kumar, Associate Professor, Department of Production Engineering, NIT, Tiruchirapalli Tamilnadu.	
4.	Experts in the subject from outside the college nominated by the academic council	Dr. R. R.Sudhakara Pandian, Professor, School of Mechanical Engineering, VIT, Vellore	
5.	One representative from industry / corporate sector / allied area relating to placement	Mr. R. Srinivasa Raghavan, AVP, Manufacturing, Alliance Tire Group, Tirunelveli.	
6.	One Post Graduate meritorious aluminous nominated by the Principal	Mr. A. Arul Marcel Moshi Assistant Professor, Department of Mechanical Engineering, National Engineering College, Kovilpatti.	

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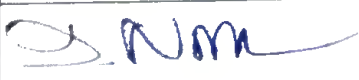
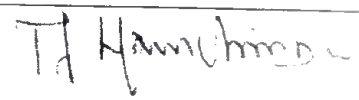

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6.	One Post Graduate meritorious aluminous nominated by the Principal	Mr.A.Arul Marcel Moshi Assistant Professor, Department of Mechanical Engineering, National Engineering College, Kovilpatti	

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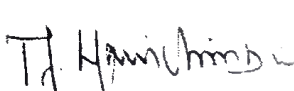

### MEMBERS PRESENT

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### MEMBERS PRESENT




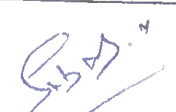
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6.	One Post Graduate meritorious alumnus nominated by the Principal	Mr. A. Arul Marcel Moshi Assistant Professor, Department of Mechanical Engineering, National Engineering College, Kovilpatti.	

Department of Mechanical Engineering

Members Present

S.no	Name of the Faculty Members	Designation/Department	Signature
1	Dr.L.R Priya	Professor(Academics) /ECE	
2	Dr.G.Rajakumar	Professor (COE) / ECE	
3	Dr. Zeenathul Farida Abdul Gani	Professor   Mechanical	
4	Dr. R. Samuel Hansen	Professor   Mechanical	
5	Dr.M.Kannan	Professor   Mechanical	
6	Dr.K.Senthilkumar	Associate Professor   Mechanical	
7	Dr.S.Balakrishnan	Assistant Professor   Mechanical	
8	Dr.Anix Joel Singh	Assistant Professor   Mechanical	
9	Dr.R.K.A Bhalji	Assistant Professor   Mechanical	
10	Dr.K.Vinukumar	Assistant Professor   Mechanical	
11	Mr.M.Ayyanar Raja	Associate Professor   Mechanical	
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15	Mr. S.Sheikh Sulaiman	Assistant Professor   Mechanical	

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16	Mr. J.Jeremy Jeba Samuel	Assistant Professor   Mechanical	
17	Mr.R.Rahesh	Assistant Professor   Mechanical	
18	Mr.M.Saravana Kumar	Assistant Professor   Mechanical	
19	Mr.M.Subash Narendra	Assistant Professor   Mechanical	

REC HoD Mech is presenting

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Track Attendance

People

Dr. Krishnaveni A

17 others

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37°C Sunny 15:38 30-07-2022

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REC HoD Mech is presenting

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COURSE CONTENT AND LECTURE SCHEDULE

S.NO	TOPIC	NO OF HOURS REQUIRED
<b>STATIC STRUCTURAL ANALYSIS</b>		
1	Form and Stress analysis of Trusses	2
2	Stress and deflection analysis in beams with different support conditions	2
3	Stress analysis of flat plates with a circular hole	2
4	Stress analysis of axis-symmetric components	2
5	Stress analysis of a bicycle frame	2
6	Buckling analysis	2

Static and dynamic balancing - Balancing of rotating masses - Balancing a single cylinder engine - Balancing of Multi-cylinder inline V and Radial engines - Partial balancing in engines Balancing of linkages - Balancing machines - Field balancing of discs and rotors

UNIT III	FREE VIBRATION	9
Basic features of vibratory systems - Degrees of freedom - single degree of freedom - Free vibration - Equations of motion - Natural frequency - Transverse vibration - Dunkley's method - Types of Damping - Damped vibration - Critical speeds of shafts - Torsional vibration - Two and three rotor torsional systems		
UNIT IV	FORCED VIBRATION	9
Response of one degree freedom - two degrees of freedom - systems to periodic forcing - Harmonic disturbances - Disturbance caused by imbalance - Support motion - transmissibility - Vibration isolation - vibration mounting devices - vibrational accelerometers and vibration pickups		
UNIT V	MECHANISM FOR CONTROL	9
Characteristics - Types - Ceu		

REC HoD Mech is presenting

2:47 PM | FXEC MECH 6TH...

Tracking Started 1 hr 18 min 16s ago Click To Generate Report

People

Dr. Krishnaveni A

20 others

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## Department of Mechanical Engineering

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### Google Meet Attendance Tracking Report

Meeting Name: **h0z-qbtj-zca**

Date: 20-Jan-2022



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Attendance Tracking Started At	≡	13:34:07
Attendance Tracking Stopped At	≡	15:30:43
Total Number of people Attended	≡	23
Total Meeting Duration	≡	1 hr 56 min 17s

#### Detailed Attendance Report

Apply filters

Number Of People Attended More Than 65% Of Meeting: **19**      Number Of People Attended Less Than 65% Of Meeting: **4**

1	ACADEMIC EXEC	23 min 35s	25%
2	ANIX JOEL SINGH , ANIX JOEL SINGH J	47 min 11s	41%
3	ARIYANAYAGAM K	1 hr 51 min 57s	97%
4	AYANAR RAJA	1 hr 28 min 47s	77%
5	DR. BALAKRISHNAN S	1 hr 54 min 27s	99%
6	DR. KRISHNAVENI A	1 hr 56 min 17s	100%
7	DR. R.K. <u>ASHALAJI</u>	1 hr 56 min 17s	100%
8	HOD MECH	1 hr 56 min 8s	100%
9	JEREMY JEB A SAMUEL J	1 hr 56 min 16s	100%
10	KANNAN M KANNAN M	1 hr 49 min 8s	94%
11	MOSHI MARSHAL MECH	1 hr 56 min 13s	100%
12	RAHESH R	1 hr 51 min 20s	96%
13	RAJAKUMAR G	23 min 16s	21%
14	ROBINSTON JEYASINGH K	1 hr 47 min 33s	93%
15	SAMUEL HANSEN R	1 hr 54 min 44s	99%
16	SARAVANA KLUMAR M	1 hr 56 min 17s	100%



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## Department of Mechanical Engineering

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Detailed Attendance Record - Class e Meet Attendance Tracker

17	SENTHIL KUMAR K SENTHIL KUMAR K	1 hr 29 min 14s	77%
18	SHEIK SULAIMAN S	1 hr 56 min 13s	100%
19	SUBASH NARENDRA M SUBASH NARENDRA M	43 min 47s	38%
20	SUDHAKAR RAMASAMY	1 hr 51 min 4s	96%
21	THANUMALAYA PERUMAL S	1 hr 56 min 17s	100%
22	VINUKUMAR K VINUKUMAR K	1 hr 56 min 17s	100%
23	ZEENATHUL FARIDA ABDUL GANI	1 hr 56 min 7s	100%

