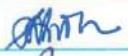
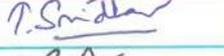
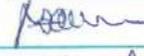
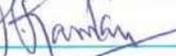
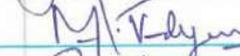
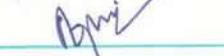


MINUTES OF THE 41ST MEETING OF THE
BOARD OF STUDIES OF MECHANICAL ENGINEERING

21-01-2023

The minutes of the meeting of the Board of Studies of Mechanical Engineering held on 21-01-2023 at 2:00 PM in IT-Block 213 - Conference hall.

The Following members were present in the meeting

Sl. No	NAME	DESIGNATION	SIGNATURE
1.	Dr. N. Rajam Ramaswamy	Chairman	
2.	Dr. A. P. Sathiyagnanam	University Nominee (UG & PG)	 21/01/2023
3.	Dr. S. Vinodh	Expert Member - Academic	
4.	Dr. A. Valan Arasu	Expert Member - Academic	
5.	Dr. N. Kulasekaran	Expert Member - Industry	
6.	Mr. N. Mani	Expert Member - Industry	
7.	Dr. K. Marimuthu	Member	
8.	Dr. T. Sridhar	Member	
9.	Dr. R. Rajesh	Member	
10.	Dr. A. S. Krishnan	Member	
11.	Dr. A. Sureshkannan	Member	
12.	Dr. G. Sivakumar	Member	
13.	Mr. P. Ramakrishnan	Member	
14.	Dr. M. Velliangini	Member	
15.	Dr. G. Suganya Priyadarshini	Member	
16.	Mr. M. Karthikeyan	Member	
17.	Dr. C. Balaji Ayyanar	Member	
18.	Mr. K. Karthik	Member	
19.	Dr. S. Selvam	Member	
20.	Dr. A. Karthikeyan	Member	
21.	Dr. A. Thangarasu	Member	

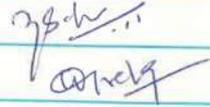
Sl.No	NAME	DESIGNATION	SIGNATURE	Resol
22.	Dr. S. Balaraman	Member		on techn
23.	Dr. C. Vivek	Member		Item 2
24.	Dr. P. Mohan	Member		on che
25.	Dr. D.P. Sam Solomon	Member		urged +
26.	Dr. P. Manivel	Member		material
27.	Dr. R. Vishnu	Member		and che
28.	Dr. G. Balaraman	Member		Item 3:
29.	Mr. R.s. Mohankumar	Member		Course
30.	Dr. C. Manivaman	Member		
31.	Dr. H. Sivarathinamorthy	Member		OF Cont
32.	Dr. S. Vellingiri	Member		Engineer
33.	Dr. S. Sathiskumar	Member		T
34.	Dr. G. Ramkumar	Member		OF the
35.	Dr. B. Gokila	Member	Pre-occupied.	
36.	Dr. B. Gayathri	Member		Chemist
37.	Dr. C. P. Yogarand	Member		and Met
38.	Mrs. R. Sudha	Member		Item 4

The 41st board of studies meeting chaired by Dr. N. Rajam Ramasamy, Head of the Department (I/c), Department of Mechanical Engineering, Coimbatore Institute of Technology, was held on 21.01.2023 at 2.00P.M. in IT-213. The chairman welcomed the members (attached in Annexure) and invited Dr. A. Karthikeyan to present the Curriculum and Syllabus up to the First Four Semesters proposed for the 2023 Regulation.

Item 1: Ms. R. Sudha presented the Syllabus of the Technical English Course which is designed for all the students including Tamil medium background. Ms. R. Sudha also informed the expert Members that training will be given in the laboratory component on technical writing.

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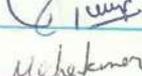
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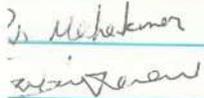
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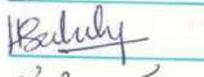
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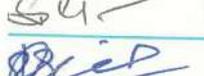

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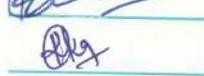

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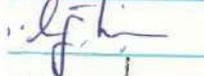
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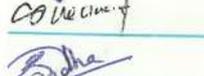
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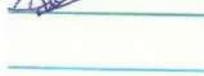
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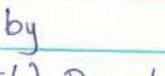
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Resolved and recommended to give Laboratory Component on technical writing.

Item 2: Dr. B. Gayathri presented the contents of the Course on Chemistry For mechanical Engineers. Dr. A. Valan Arasu urged to ensure that no overlapping of topics on Nano materials, between Courses on Physics For Mechanical Engineers and Chemistry For mechanical Engineers.

Item 3: Dr. G. Suresh kannan presented the Contents of the Course on Engineering Materials and Metallurgy.

Mr. K. Karthik suggested to ensure that overlapping of Contents be avoided between Chemistry For Mechanical Engineers and Engineering Materials and Metallurgy.

Dr. G. Suresh kannan responded that the Contents of the said two Courses are different.

Resolved that overlapping of Contents between Chemistry For Mechanical Engineers and Engineering Materials and Metallurgy are avoided.

Item 4: Dr. C.P. Yoganand presented the Contents of Courses on Physics For Mechanical Engineers - I and Physics For Mechanical Engineers - II. Dr. S. Vinodh suggested assignments based on applications to the Concepts in the Course Syllabus. He also suggest including topic on different type of Shape memory alloys. Dr. Sridhar Thyageswaran Proposed including Contents on High Entropy Alloys.

Dr. A. Valan Arasu replacing preparation of Nano-materials as they are discussed in Chemistry For Mechanical Engineers too. Dr. Kulasekaran suggested inclusion of material characterization.

Resolved and recommended to include a topic on High Entropy Alloys in the module on Novel Engineering Materials in the Course on physics For Mechanical Engineers - II

Resolved and recommended to include a topic on Material Characterization in the module on Mechanical

Properties and Testing in the Course on Engineering materials and Metallurgy.

Item 5: Dr. G. Sivakumar presented the Syllabus of Engineering Graphics I and II which included both manual and AutocAD Practice. Dr. A. Valan Arasu enquired about the necessity of tutorial hours in engineering graphics and the chairman responded that tutorial hours is eng for freehand sketching.

Dr. N. kulashekar asked if the topic on Section of Solids will be dealt with Dr. Sivakumar responded that it will be discussed in Engineering Graphics - II. Dr. A. Valan Arasu inquired on the nature of assembly drawings offered in Engineering Graphics - II. Since a Course in Machine Drawing is given. He added that these topics can be dealt with effectively after the students are introduced to the topic on fits and Tolerances. Dr. A. Valan Arasu suggested that Assembly drawing in Engineering Graphics - II in the Second Semester is too early and Dr. A. P. Sathiyagaram suggested shifting the Assembly drawings content to machine drawing which will be given in a later Semester.

Resolved and recommended to include perspective projection in Engineering Graphics - II and move contents on assembly drawings from Engineering Graphics - II to machine Drawing.

Item 6: Mr. M. Karthikeyan presented the Syllabus of Manufacturing processes and pointed out that only theoretical concepts are covered. Mr. N. Mani suggested having metal cutting and machining parts including laser/plasma and water jet machining in the contents. The chairman suggested rephrasing the contents. Mr. N. Mani mentioned that Messers offers books and visits to virtual labs for institutions.

Resolved and recommended to include metal cutting and machining parts including laser/plasma and water jet machining in the contents of Manufacturing Processes.

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Item 7: Dr. S. Vinodh suggested including the FLD diagram in unit two of the course Manufacturing Sciences. Dr. N. Kulasekaran suggested introducing simulation softwares used in the industry.

Resolved and recommended to include the FLD diagram in unit two of the course on Manufacturing Sciences.

Item 8: Dr. K. Marimuthu presented the Computer-aided machine drawing syllabus. Mr. N. Mani suggested including dynamic simulations in the Computer-aided machine drawing course.

Dr. S. Vinodh suggested including production drawing in a Computer-aided machine drawing course.

Resolved and recommended to include production drawing in the course on Computer-Aided Machine Drawing.

Item 9: Dr. S. Vinodh suggested including both C and Python programming for benefit of students. Dr. A. Valan Arasu suggested combining C and Python programming with every two units.

Resolved and recommended to combine C and Python programming with every two units.

Item 10: Dr. A. S. Krishnan presented the syllabus of the Fluid Mechanics course. Dr. N. Kulasekaran suggested that Dimensional Analysis can be given as a separate module.

Dr. Sridhar Thyageswaran suggested that the topics on laminar boundary layer flow and introduction to turbulence can be shifted to the third module. He added that the third module be renamed as "Viscous Flow".

Dr. Kulasekaran and Dr. Sridhar Thyageswaran suggested remaining the Module IV and V as Rotary machine and Positive displacement machines respectively. Dr. Sridhar proposed that Dimensional Analysis may be given along with Governing Equations. Dr. Kulasekaran proposed revising topics for the V module. He added that topics on vane pump, Lobe pump, piston pump, etc shall be included.

Dr. Sridhar proposed that Dimensional Analysis may be given along with Governing Equations. Dr. Kulasekaran proposed revising topics for the V module. He added that topics on vane pump, Lobe pump, piston pump, etc shall be included.

Resolved and recommended to have Dimensional Analysis along with the module on Governing Equations.

Resolved and recommended naming third unit as Viscous Flow

Resolved and recommended naming fourth and fifth unit as Rotary machines and Positive Displacement machines respectively.

Resolved and Recommended to include topics on vane Pump, Lobe pump and piston pump

Item 11: Dr. A. Valan Arasu Suggested having a Summer and winter Air conditioning in unit five of the applied thermodynamics Course. Dr. A. Valan Arasu Suggested Naming the title Steam power cycles For Fourth unit on applied thermodynamics Course.

Resolved and recommended naming the title Steam Power Cycles For fourth unit on applied thermodynamics Course.

Item 12: Dr. A. Valan Arasu proposed to addition of a topic on Summer & Winter Air-Conditioning processes in the module on Psychrometry For the Course on Applied Thermodynamics.

Resolved and recommended to included topics on Summer & Winter Air-Conditioning processes in the module on Psychrometry For the Course on Applied thermodynamics

Discussions on the Following points took place:

1.) Dr. A. Karthikeyan presented the Curriculum and verticals Proposed For B.E. Mechanical Engineering with honours, Major and Minor Specialization.

2.) Dr. N. Kulashekaran Suggested having a vertical on Autonomous vehicles with a Course on Mechatronics, highlighting its importance From the perspective of Career opportunity. He also inquired about eligibility Criteria For the Students to take verticals. The Chairman responded that both theory and Laboratory Courses on

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Mechatronics is proposed to be offered. Dr. A. S. Krishnan added that it is proposed to offer vertical on Robotics and Automation, comprising courses on Smart Vehicles and Drone technology. He added that the students can opt for verticals from the 5th Semester onwards provided they have secured a CGPA of not less than 7.5 with no history of back-logs / arrears.

- 3.) Dr. A. Valm Arasu enquired about the inclusion of Course on Tamil. The chairman responded that this has been done in Congruence with Anna university.
- 4.) Mr. N. Mani appreciated having included the course on operation Research. He also inquired why it was placed under HSMC. HoD responded that since it is classified under management course, it has been placed under HSMC.
- 5.) Mr. Mani inquired if the 'p' in PCC is an acronym for Professional Program. The chairman clarified that "P" stands for programme.
- 6.) Dr. N. kulashekaran sought clarification on the availability of softwares for CAD/CAM. The chairman responded that the students edition of the softwares (Fusion 360 for instance) and open-source softwares are available for training the students.
- 7.) Dr. N. kulashekaran suggested offering Python programming in lieu of C programming as a core course. He also suggested moving C programming to the elective. The rest of the external members too seconded to this.
- 8.) Mr. N. Mani suggested having contents of DFM, DFC, DFR and DFC in the syllabus of Design for X. He also suggested having an agile manufacturing course as an elective.
- 9.) Ms. R. Sudha presented the syllabus of the Language Lab course. Dr. S. Vinodh suggested giving team-oriented activities. Dr. N. kulashekaran suggested sharing feedback and individual performances of students.

- 10.) Dr. S. Vinodh suggested including Courses on Industry 4.0, Artificial intelligence, Machine Learning and Deep Learning under the vertical on Robotics and Automation. Dr. N. Kulashekaran seconded and enquired about expertise for handling these Courses and the chairman responded that Anna university offers training for faculties for the same and that it is proposed to have the faculty members trained and experts from other departments and / or external member would be invited too, to ascertain that the students have the necessary teaching members to learn.
- 11.) Dr. Sathiyagnanam and Dr. S. Vinodh suggested having industry-aligned Courses to boost research and suggested including Courses on Total Quality management and Six sigma.
- 12.) Dr. A. Karthikeyan continue to present, and the contents of Courses on mathematics were displayed. Dr. S. Vinodh suggested highlighting the application Prof. T. Sridhar responded that the contents of the Courses on mathematics have been constructed to address the needs of students of mechanical engineering.
- 13.) Mr. N. Mani suggested including a courses on mathematics have contents on structures. He added content on "ladder" may be avoided as it is outmoded.
- 14.) Dr. N. Kulashekaran asked if there are any restrictions on the no. of Courses in the verticals. The chairman responded stating that there are no such restrictions.
- 15.) Dr. S. Vinodh suggested using passive voice in framing the experiments list in the Foundry and welding lab.
- 16.) Dr. R. Sathiskumar presented the metallurgy lab experiments. Dr. A.P. Sathiyagnanam suggested increases the no. of experiments.
- 17.) Dr. A. Valan Arasu suggested having Fluid Machinery lab after completion of the theory course and the chairman responded that

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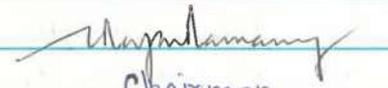
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an. responded that

Sequence of lab course will be revised and sent to the members for review at the earliest.

- 18.) The expert members suggested including Communication networking protocols in the embedded processor architecture course
- 19.) Dr. S. Vinodh offered to help construct the course contents on Smart materials.

Dr. Rajesh Rajaganathan Proposed the vote of Thanks and concluded the meeting.


Chairman
Board of Studies.

Dr. N. Rajam Ramasamy, Ph.D.,
Head i/c,
Department of Mechanical Engineering,
Coimbatore Institute of Technology,
Coimbatore - 641 014, INDIA.