



MANAKULA VINAYAGAR INSTITUTE OF TECHNOLOGY



An Autonomous Institution

Affiliated to Pondicherry University, Approved by AICTE, New Delhi,
Accredited by NAAC with 'A' Grade
Kalitheerthalkuppam, Puducherry- 605 107.

DEPARTMENT OF MECHANICAL ENGINEERING

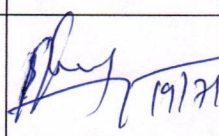
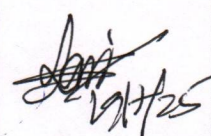
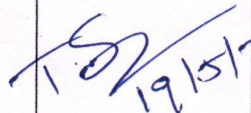

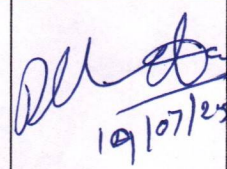
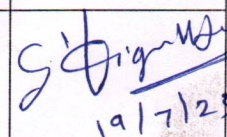
1st BOARD OF STUDIES MEETING - JULY 2025


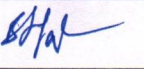
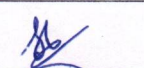


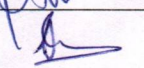
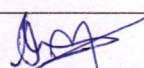
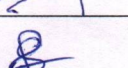
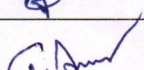
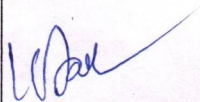
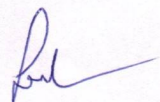
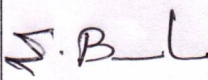
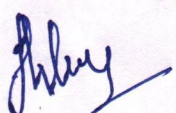
Venue: Department of Mechanical Engineering

Date: 19/07/25

Time: 10.00 A.M

Day: Saturday

Sl.No	Name of the Members	Designation	Signature
1.	Dr.B.RADJARAM, Professor and Head, Department of Mechanical Engineering	Chairman, BOS Mechanical Engineering	
External Members			
2.	Dr. S.RAVI Professor & Head , Department of Manufacturing Engg Annamalai University, Chidambaram, Tamil Nadu.	University Nominee	
3.	Dr. T. SENTHILVELAN Professor & Former Head Department of Mechanical Engineering, Puducherry Technological University Puducherry.	Expert Member	
4.	Dr.N. SENDHIL KUMAR- Dean (Student Welfare), Associate Professor, Department of Mechanical Engineering National Institute of Technology - Puducherry, Karaikal	Expert Member	
5.	Dr. R.MURUGANANDHAN Associate Professor, Department of Mechanical Engineering, College of Engg Anna University, Guindy, Chennai.	Expert Member	
6.	Er A. NARAYANAN- Vice president MGM-SAFI, Chennai.	Industry Expert	ONLINE
7.	Er. G. VIGNESH KUMAR (2015- 19)Consultant KPMG Global services Bangalore	Alumni Member	

Sl. No	Name of the Members	Designation	Signature
<u>Internal Members</u>			
1.	Mr.K.SELVAM	Member	
2.	Mr.B.VASANTH	Member	
3.	Mr.S.GANESHKUMAR	Member	
4.	Mr. A. THIAGARAJAN,	Member	
5.	Mr. R. ILANDJEZIAN	Member	
6.	Dr. A. MATHIARASU	Member	
7.	Dr. P. NATARAJAN	Member	
8.	Dr. S.KRISHNA KUMAR	Member	
9.	Mrs. G.DEEBA	Member	
10.	Mr. K. ANAND Associate Professor, Department of Physics.	Co-Opt Member	
11.	Mr. S.RAVICHANDRAN Associate Professor, Department of Mathematics.	Co-Opt Member	
12.	Mr. S.BALAJI Assistant Professor, Department of Computer Science.	Co-Opt Member	
13.	Mr. D. BALAJI Assistant Professor, Department of Electrical & Electronics Engg	Co-Opt Member	



MANAKULA VINAYAGAR

INSTITUTE OF TECHNOLOGY



Approved by the AICTE, New Delhi - Affiliated to Pondicherry University
Accredited by NAAC WITH 'A' Grade and NBA (National Board of Accreditation)

Kalitheerthalkuppam, Puducherry - 605 107
Ph: 0413 2643007 / Website: www.mvit.edu.in

Department of Mechanical Engineering

Minutes of the Meeting of Board of Studies for Department of Mechanical Engineering held on 19.07.2025

The meeting of Board of Studies for the Department of Mechanical Engineering was held on 19.07.25 at 10.00 am on HYBRID mode. (Venue: Department of Mechanical Engineering, Zoom Link: <https://us06web.zoom.us/j/86441370224?pwd=vJCRHkaC3regyxiL5atiINLdLR4vJ9>)

Members attended:

Sl. No.	Name with designation & Address	Category
1.	Dr. B. RADJARAM Professor and Head, Department of Mechanical Engineering, Manakula Vinayagar Institute of Technology, Puducherry.	Chairman
2.	Dr. S. RAVI Professor & Head , Department of Manufacturing Engg., Annamalai University, Chidambaram, Tamil Nadu.	University Nominee
3.	Dr. T. SENTHILVELAN Professor & Former Head, Department of Mechanical Engineering, Puducherry Technological University Puducherry.	Expert Member
4.	Dr. N. SENDHIL KUMAR- Dean (Student Welfare), Associate Professor, Department of Mechanical Engineering, National Institute of Technology, Karaikal Puducherry.	Expert Member
5.	Dr. R.MURUGANANDHAN, Associate Professor, Department of Mechanical Engineering, College of Engg., Anna University, Guindy, Chennai.	Expert Member
6.	Er A. NARAYANAN- Vice president, MGM-SAFL, Chennai.	Industry Expert
7.	Er. G. VIGNESH KUMAR (2015-19), Consultant, KPMG Global services, Bangalore.	Alumni member
8.	All faculty members of the Department of Mechanical Engineering.	Members
9.	Mr. K. Anand, Associate Professor, Department of Physics.	Co-opt Member

10.	Mr. S. Ravichandran , Associate Professor, Department of Mathematics	Co-opt Member
11.	Mr. S. Balaji , Assistant Professor, Department of Computer Science.	Co-opt Member
12.	Mr. D. Balaji , Assistant Professor, Department of Electrical & Electronics Engg.	Co-opt Member

Agenda for BOS meeting:

- 1) Introduction about the Institution and Department.
- 2) To discuss the Regulations 2025 proposed and University R2023 and R2013.
- 3) To discuss B.Tech Degree Curriculum for Ist&IInd semester under Autonomous Regulations 2025 for the students admitted in the Academic Year 2025-2026 (First Year).
- 4) To discuss B. Tech Degree Syllabi for Ist&IInd semesters under Autonomous Regulations 2025 and its highlights, for the students admitted in the Academic Year 2025-2026 (First Year).
- 5) To discussion draft curriculum from IIIrd to VIIIth semesters for Autonomous Regulation -2025
- 6) To discuss Curriculum and Syllabi from (Ist to VIIIth) semesters under Pondicherry University Regulations 2013, 2023 for the B. Tech students studying Final year, 3rd year and 2nd year.
- 7) To discuss the uniqueness of the curriculum.
- 8) To discuss and approve the Evaluation Systems.
- 9) To discuss about the Innovative Teaching/Practices Methodology adopted to handle the emerging/Advanced Technological concept courses.
- 10) To discuss and approve the panel of examiners list.
- 11) Any other item with the permission of chair

At the start of the meeting Dr. B. Radjaram, Chairman of BoS welcomed the Expert members of Board of Studies and introduced Expert members, Faculty members of the Department of Mechanical Engineering and also the co-op members of various departments from the institution.

1. Briefing of about the Institution and Department

- Chairman brief about the Sri Manakala Vinayaga Education Trust listing the various colleges run by the trust and also about the Institution along with the Department's facilities, achievement, activities etc.
- Members noted and appreciated the growth of our trust and service rendered to the society.

2. Approval of the Regulations 2025 and University Regulations 2023 and Regulations 2013.

- Chairman briefed that the 4th year (2022 to 2026) batch will follow the 2013 regulation, of Pondicherry University whereas 3rd year (2023 to 2027) and 2nd year (2024 to 2028) batch will follow 2023 regulation and syllabus of Pondicherry University. Only new curriculum and regulations will be implemented from 2025 to onwards.
- BoS members approved Regulation 13, Regulation 23 and Regulation R25.

3. Discussion on B. Tech Degree Curriculum for Ist & IInd semester under Autonomous Regulations.

- BoS members said that all though the credit may be same, the change of department is not possible because the subjects are varied among the departments. Theory + practical subjects can be either 3 or 4 credit based on the nature and the difficulty of the subject. Change of branch in 3rd yr is not permitted.
- Prof. T. Senthilvelan insisted not to violate the university regulation in awarding degree.

Credit distribution

	L	T	P	Credits
Theory with tutorial	3	1	-	4
Theory	3	-	-	3
Practical	-	-	2	1
Theory+ Practical	3	-	2	4

- Prof. T. Senthilvelan advised to maintain the credits around 20 for each semester

- Members said that 10 credit for project is more which can be adjusted as 8 and advised to add 1 more credit for internship,(previously given as 1 which need to be changed as 2) also advised to set the duration of the internship as 4 weeks per year.
- **Regulation 2025 curriculum and Syllabus, SEM-I,** Prof. S. Ravi advised to add 1 lecture for Design thinking and Idea lab, so it will be 1- Lecture + 2 Practical. Therefore, the credit also should be changed to 2.
- Prof. N. Senthil Kumar suggested course title for Professional competency-I & II should be changed specifically based on syllabus, naming I, II must be avoided for all the courses.
- **Regarding uniformity in credits,** BoS members insisted to maintain the uniform credits (i.e.20 credits for each semester), hence Engineering Mechanics is moved to 2nd semester and UHV to 1st semester in order to maintain the credit uniformity. Also members advised to maintain 40 credits for 1st year.

4. Discussion about B. Tech Degree Syllabi for Ist & IInd semesters under Autonomous Regulations 2025 and its highlights, for the students admitted in the Academic Year 2025-2026 (First Year).

- Prof. Ravi suggested that the topic on Grinding should be added in theory course of 25UMET24 Machining process instead of lab course 25UMEP23 Fabrication lab.
- Also in the lab course 25UMEP23 Fabrication lab, welding section should be changed as Material joining in which soldering and brazing can be added. TIG and MIG welding should be added in theory course 25UMEI15 Manufacturing Processes & practice.
- The BoS members suggested to change the word “Basic” to “Applied” for theory course 25UMET23 Basic Electrical Electronics & instrumentation paper and asked to remove “Basic” in lab course 25UMEP21 Basic Electrical & Electronics Lab.
- In theory course 25UMET14 Biology for Engineers, BoS members to rename as “Concepts of Engineering in Biology”. Also suggested to conduct bridge course for the students who studied computer science in higher secondary school. Over all, the syllabus should be revised by minimizing the content in the syllabus. Also inclusion of biomaterial is needed.

- In theory course 25UMET12 Physical science for Mechanical Engineering in module-II BoS members asked to include fluid properties and introduction to electrochemistry, battery and fuel cells.
- BoS members mentioned that in Mandatory Course 25UMCC12 IKS- Concept & application in Engineering and Science and for the 25UMCC11 Environmental Science & Sustainability asked to recheck the given syllabus for minor corrections.
- Alumni member suggested to rename the theory course 25UMEI21 Problem solving using Python, as it is python specific to “Problem solving using programming Language”. Also in Unit-1 basics of Python should be removed and hardware parts of computer systems can be added and in Unit-4 & 5 file handling can be removed. Also asked to add SQL in Unit-4 and contents in Unit-5 to be replaced with HTML.
- Prof. N. Senthil Kumar suggested to add Music therapy in Mandatory Course 25UMCC21 Holistic Wellness.
- Overall changes in the syllabus of semester I & II are - updated list of text book. Also mentioned that only two textbooks in the text book section and if there are more books asked to add the extra text books in reference section with only maximum 5 reference books.
- They also said that all text books should have author name, title, publisher and year of publishing and also insisted to give only latest book (probably should be from 2018 to 2025) and repeat the same for the reference books.
- BoS members suggested to change the CO-PO mapping. And asked to remove all the prerequisites for the 1st year subjects wherever not applicable. Also NPTEL can be added as prerequisite.
- BoS members asked to remove Course designer and Lecture schedule, as it will reflect in Lesson plan.

5. Discussion on drafted curriculum from IIIrd to VIIIth semesters for Autonomous Regulation -2025.

- Regarding the curriculum for 3rd semester courses BoS members mentioned that the theory course 25UMET31 Engineering Mathematics-3 should be changed. BoS

members suggested to rename the theory course 25UMET35 AI for mechanical engineers to “Application of AI in Mechanical Engineering”.

- Prof. T. Senthilvelan suggested to change the theory courses 25UMET33 Fluid Mechanics and Machinery and lab course 25UMEP32 Fluid Mechanics and Machinery Lab to be integrated into Theory + Practical course.
- In Semester-4, BoS members asked to rename the theory course 25UMET44 Process Planning & Cost Estimation to “Project Management and Cost Estimation”.
- Prof. N. Senthil Kumar suggested to separate the theory course 25UMET42 Kinematics and Dynamics of Machinery as separate theory courses likely “Kinematics of Machinery” and “Dynamics of Machinery” and should be given as Kinematics of Machinery+ Practical & Dynamics of Machinery+ Practical (Theory + practical course) .
- The titles of the Employability Enhancement Courses 25UPCE31 Soft skills and Aptitude-I and 25UPCE41 Soft skills & Aptitude-II in semester -6 should be changed with program specific terms.
- In semester-5, BoS members suggested to remove the theory course 25UMET54 Industrial Internet of Things should be removed and the contents can be added as 2 units in semester-6 theory course 25UMET63 Manufacturing automation syllabus.
- In semester-6, Professor. N. Senthilkumar also asked to put CFX software Instead of CFD software in the Employability Enhancement Courses 25UCCC61 Certificate course IV-CFD/SOLID WORKS/ANSYS.
- Professor. N. Senthilkumar insisted to include “Product Design and Development” in Professional elective course.
- They also suggested to rename Professional Elective Courses 25UMEL34 Big data for mechanical engineers to “Big data analytics of Mechanical Engineers”.
- BoS members suggested to add Six Sigma in of Professional Elective Courses Lean Manufacturing and also asked to rename the course name as Six Sigma and Lean Manufacturing.
- Also suggested to add the concepts of Product Lifecycle Management (PLM) and Enterprise Resource Planning (ERP) to be added in management courses.

- Prof. N. Senthilkumar, insisted to rename the honours course E-vehicle to E-mobility and informed to add relevant syllabus contents.
- Prof. S. Ravi suggested to segregate Professional elective course on specialization basis.
- Industry expert Mr. A. Narayanan advised to bring cost and economical aspects such as Techno commercial & engineering economics in the curriculum, He also suggested to add Project management concept in theory course - 25UMET44 Process Planning & Cost Estimation rename course title as Project Management & Cost Estimation and introduce bridge course for 25UMET14 Biology for Engineers

6. Discussion on Curriculum and Syllabi from (Ist to VIIIth) semesters under Pondicherry University Regulations 2013, 2023 for the B. Tech students studying Final year, 3rd year and 2nd year.

- The BoS members approved the Curriculum and Syllabi from (Ist to VIIIth) semesters under Pondicherry University Regulations 2013 for the B. Tech students studying Final year and Regulation 2023 for B. Tech 3rd year and 2nd year students.

7. Discussion about the uniqueness of the curriculum.

- Chairman briefed the uniqueness of the curriculum and the BoS members appreciated for the inclusion of finest and emerging technology oriented courses.

8. Discussion and approval of the Evaluation Systems.

- Chairman explained the pattern of theory and practical examination of Regulations 2013, 2023 and 2025. He mentioned that in R2025 theory exam will be conducted for 100 marks, which will be converted to 60 marks and 40 marks for continuous internal assessment. Further for Practical Examination 40 marks allocated for external and 60 marks allocated for continuous internal assessment.
- BoS members approved the pattern of examination as proposed in Regulations as applicable

9. Discussion about the Innovative Teaching/Practices Methodology adopted to handle the emerging/Advanced Technological concept courses.

- Chairman elaborated the list of innovative pedagogical Teaching/Practices Methodology adopted to handle the emerging/Advanced Technological concept courses and the BoS members accepted the briefing and appreciated the faculty members.

The list tools used are as follows,

- ✓ Mind mapping
- ✓ Google Classroom
- ✓ Gamification Platforms –Classkraft, Jigsawpuzzle etc.
- ✓ Experiential and Case-Based Learning
- ✓ Virtual Labs (NPTEL / IIT-Virtual Labs)
- ✓ Flipped Classroom
- ✓ Project-Based & Problem-Based Learning
- ✓ Active Learning
- ✓ Teamwork and Collaboration
- ✓ Chat GPT and Artificial Intelligence
- ✓ Teaching Freshmen Classes
- ✓ Implementation of IKS in current syllabus

10. Discussion and approval of the panel of examiners list.

- Chairman briefed that nearly 600 faculty member from reputed colleges all around India have been identified and the eligibility criteria is 5 yrs of Teaching experience (& Ph.D. Preferable)
- BoS members approved the panel of examiners list.

11. Any other item with the permission of chair

- Chairman briefed about future plan on integrated B. Tech with M.S(5 years), in which the student can study the 1st year of MS here, itself through online and 2nd year he will go for the abroad university .

- BOS members advised to fix the eligibility criteria in order to identify the quality students for above program (for eg: 7.5 CGPA as eligibility criteria)

Overall discussion of points other than Agenda:

- Prof. N. Senthil Kumar insisted to create awareness about eligibility criteria for Honours and Minors (i.e. 7.5 CGPA+ No history of arrears) among the students in orientation program in 1st yr itself.
- Prof. N. Senthil Kumar explained about summer and winter redo which benefit the students. He advised to consider this and if possible to execute.
- Regarding Honours and Minors condition, Chairman briefed about the criteria for Honours and Minors mentioning that minimum 5 students should apply for the paper. And He/She can withdraw the course whenever he/she wants and credits will be calculated in CGPA. However this will be printed in 8th semester grade sheet as additional subject separately.
- For the completion of degree, Prof. N. Senthil Kumar and Prof. T. Senthilvelan suggested that if a student got their required credit at the 6th or 7th semester they can move out from the college for internship (for fast learners). And also Students can do projects in 8th semester in industries without any disturbance since they got this credits, as recommended by AICTE
- The chairman explains about the supplementary exam which will be conducted in 5th and 8th semester in order to help the students who are having less than or equal to 2 arrears.
- Prof. T. Senthilvelan strongly recommended that if any change in Regulations, then it should get approval from the university. He also insisted that Autonomous institutions may change the Pondicherry University regulation after obtaining approval from the Pondicherry University authorities especially in the areas of examinations, evaluation and assessment methods.
- Dr R. Muruganandham suggested to introduce twin degree program / integrated M.Tech Degree in future with university approval
- Also suggested to group professional electives as group under Thermal, Design, Production , Industrial Engg , Emerging technologies, etc

Resolutions:

1. It was resolved to approve the Regulations 2025 proposed and University Regulations R2023 and R2013 already followed .
2. It was resolved to approve the B. Tech Degree Curriculum for Ist & IInd semester under Autonomous Regulations 2025 with corrections mentioned for the students admitted in the Academic Year 2025-2026 (First Year).
3. It was resolved to approve the B. Tech Degree Syllabi for Ist & IInd semesters under Autonomous Regulations 2025 along with the changes mentioned for theory and lab courses.
4. It was resolved to approve the draft curriculum from IIIrd to VIIIth semesters for Autonomous Regulation -2025 with changes in the course names and addition of contents in the syllabus for respective theory & lab courses. Based on the draft curriculum, 2nd year curriculum and syllabus will be finalized in next BoS meeting for 2025-26 batch.
5. It was resolved to recommend the Evaluation Systems as per Regulations R2013, 2023 and 2025.
6. It was resolved to recommend the panel of examiners list.

Dr T. Senthil velan complimented the department for the efforts taken in framing curriculum and syllabus with due care, incorporating latest and emerging technologies.

He wished all the best for the successful performance of the department under Autonomous system.

Finally the Chairman thanked all the Expert Members and other BoS members

The meeting ended at 2.00 pm



Dr . B. RADJARAM
CHAIRMAN
BOARD OF STUDIES
MECHANICAL ENGINEERING
MVIT

Dr. B. RADJARAM, M.Tech., Ph.D.,
Professor & Head
Dept of Mechanical Engineering
Manakula Vinayagar Institute of Technology
Puducherry-605 107.



MANAKULA VINAYAGAR INSTITUTE OF TECHNOLOGY

An Autonomous Institution

Affiliated to Pondicherry University, Approved by AICTE, New Delhi,

Accredited by NAAC with 'A' Grade

Kalitheerthalkuppam, Puducherry- 605 107.

DEPARTMENT OF MECHANICAL ENGINEERING



Photos of BoS meeting (19-07-25)



