



SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY (AUTONOMOUS)

Vidya Nagar, Palissery, Karukutty, Ernakulam - 683576, Kerala, India.
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Minutes of the Meeting

Name of the meeting: Board of Studies		Meeting type: Offline/Hybrid/Online Offline
Date: 15.07.2026		Time: 9.30 AM – 11.00 AM
Department: Mechanical Engineering, SCMS School of Engineering & Technology		
Meeting Link: https://meet.google.com/yra-vwrq-uhf?hs=224		
Attendees		
Sl.No	Category	Name
1	HoD (Chairperson)	Dr. Vidya Chandran, Associate Professor
2	Subject Experts	Dr. K Arul Prakash, Professor, Dept. of Applied Mechanics, IIT Madras.
		Dr. Santhakumar Mohan, Professor Dept of Mechanical Engineering, IIT Palakkad.
3	Expert Nominated by Vice Chancellor	Dr. Manoj Kumar P, Professor & HOD, Department of Mechanical Engineering, PSG Institute of Technology and Applied Research, Coimbatore
4	Representative from Industry	Mr. Motti Iype Thomas, Global Director Sales , Fluitron IPL LLC,Dubai, United Arab Emirates.
5	Alumni Representative	Dr. Anties K Martin, Applications Manager at COMSOL, Chennai, Tamil Nadu, India

Faculty Members from the Department

Sl. No	Name	Designation
1	Dr. Mahesa Rengaraj R.	Professor
2	Dr. Raghav G. R.	Associate Professor
3	Dr. Gibin George	Associate Professor
4	Mr. Francis Thomas	Assistant Professor

5	Dr. Jose Sheril D'Cotha	Assistant Professor
6	Mr. Nikhil Ashok.N.	Assistant Professor
7	Mr. Rakesh.A.	Assistant Professor
8	Mr. Noel Joseph Gomez	Assistant Professor
9	Mr.Vishnu.H.	Assistant Professor
10	Mr. Ajith Kumar R.	Assistant Professor
11	Mr. Suraj R.	Assistant Professor
12	Mr. Dinil Babu C.	Assistant Professor
13	Mr. Anoob Jose	Assistant Professor
14	Mr. Deepak Xavier	Assistant Professor
15	Dr. Rakesh P R	Assistant Professor
16	Dr. Krishnaprasad S Menon	Assistant Professor

Sl.No	Agenda
1	Welcome Address by the Chairman
2	Introduction of Members of the Board of Studies and Confirmation of Quorum
3	Constitution of the Board of Studies and Briefing on the Roles and Responsibilities of the Board
4	Presentation of the Vision, Mission, Programme Educational Objectives (PEOs), Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) of the Department for Approval.
5	Consideration and Approval of the Curriculum Structure and Scheme of Study for the Undergraduate/Postgraduate Programmes. Approval of credit distribution, audit courses, and activity points.
6	Approval of curriculum templates and syllabus template along with approval of Course Outcomes (COs), CO-PO Mapping and Assessment Framework
7	Consideration and Approval of Detailed Syllabi of Courses for Semester I and Semester II
8	Approval of Laboratory Experiments, Equipment Requirements and Learning Resources
9	Consideration and Approval of Minor, Honours, Multidisciplinary and Open Elective Baskets (where applicable) ,MOOC Courses. (if Applicable) Value-Added Courses, Skill Enhancement Courses and Internship Framework
10	Constitution of Department Curriculum Committee (DCC), Programme Assessment Committee (PAC) and Department Advisory Board (DAB). Discussions of recommendations from PAC and DAB.
11	Recommendations to the Academic Council for final approval of the curriculum

12	Any Other Matter with the Permission of the Chair
13	Vote of Thanks
Sl.No	Discussions
1	Dr. Vidya Chandran (Chairperson) welcomed the BOS members and opened the meeting with an introduction of the panel members. Quorum of BoS confirmed (All members were present either online or offline)
2	The SCMS group was introduced to the panel, followed by an introduction of the institution, the Department and its activities. Duties and responsibilities of the BoS was also presented.
3	Vision, Mission, Programme Educational Objectives (PEOs), Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) of the Department were presented before the BoS by the chairperson.
4	The Department Advisory Board (DAB), Programme Assessment Committee (PAC) and Departmental Curriculum Committee (DCC) were discussed and approved.
5	The curriculum was presented to the BOS by the program coordinator and session was opened to discussion
6	Semester 1: Concern raised on the title “Mathematics for Electrical Science and Physical Science – I” (BSC / GC course) — subject experts raised a query on the suitability of the term “Electrical Science” in a Mechanical Engineering (ME) programme course title. The title needs to be reviewed so that it more accurately reflects the course content and its relevance to ME students.
7	The Industry Expert raised the possibility of introducing industry-relevant courses in the initial semesters itself, rather than concentrating them in the later years of the programme.
8	Semester 2: Syllabus of Mechanics of Solids (MOS) was discussed — introduction of statics and dynamics within Engineering Mechanics was discussed. Fundamentals of Electrical and Electronics Engineering were suggested to be introduced at this stage. DCC’s suggestion regarding Fundamentals of Electrical and Electronics in Semester 3 was noted.
9	Semester 2 – Content of Engineering Graphics course was discussed and there was a query on the introduction of CAD at this stage.
10	Semester 3: A better, more representative title was requested for the “Electrical and Electronics Lab,” to be finalised based on the actual list of experiments — which now includes AI-related content also.
11	Semester 4: No changes were proposed.
12	Semester 5: Mechatronics was proposed as a core course rather than an elective (as per the current university curriculum)
13	Semester 5: “Mechanical Engineering Lab” name was flagged as too generic — the panel requested a more specific title that reflects the lab's actual content.
14	Machine Design course: The coverage was discussed and was proposed to discuss the syllabus in detail in the next BoS meeting.
15	It was agreed that the course content of both Heat and Mass Transfer (HMT) and Thermal Engineering should be cross-checked to identify which is the more fundamental course, and the semester sequencing rearranged (including swapping semesters, if needed) once this review is complete. It was separately explained that Thermal Engineering has currently been offered in Semester 6 creating a discontinuity with Thermodynamics (offered in S4). This placement is to be reconfirmed following the content review.
16	Semester 6: The panel queried the Industry Linked Elective, asking what it specifically involves; the elective was explained to the panel in detail by the chairperson.
17	Semester 6: A course name change was suggested for the Thermal Engineering Lab; renaming it as “HMT Lab” was also proposed, subject to verification against the actual list of experiments conducted. The naming of Thermal Engineering Lab 1 and Lab 2 is to be finalised on this basis.
18	Semester 6: Industrial and Systems Engineering — the panel advised that the course content

	should be either purely management-oriented or purely technical, and should not mix both; the title should be reconsidered if necessary for clarity. Separately, Dr. Mahesh R. suggested moving this course into the Programme Elective category (Elective 4) and renaming it "Operations Management," with a GATE-aligned syllabus, and removing "Management for Engineers" from Elective 4. These two inputs are to be reconciled by the Department while finalising the course structure.
19	Semester 7: Query raised on the internship in relation to its domain relevance.
20	Major Project credits: The panel felt the current credit allocation (4 credits in Semester 8) is on the lower side. It was recommended that the evaluation criteria and norms for the Major Project be standardised, and that increasing the credit weightage be considered, given the importance of the project component.
21	MOOC courses – evaluation standards: A query was raised on whether the evaluation and assessment standards set by the institute/department for online MOOC courses simply follow NPTEL/SWAYAM norms, or whether a better, department-specific approach should be developed (applicable to all semesters).
22	MOOC courses – course load: It was questioned whether it is necessary or appropriate to include four MOOC courses in semester 7 within a single semester, and whether online MOOC courses and the Major Project can be effectively synchronised within the same semester. The proposal of 4 MOOCs (4 credits) was felt to be a little hectic for students.
23	Self-Study courses: The assessment criteria for Self Study courses needs to be clearly defined by the Department.
24	Numerical Methods: The importance of introducing "Numerical Methods" as a major/core course in the initial years was emphasised, particularly before offering electives such as CFD and FEM; this is to be discussed further with the Mathematics Department.
25	Financial Management: The possibility of incorporating a dedicated course on "Financial Management" was raised for consideration.
26	Semester 8: Options 1, 2 and 3 for the Project in Semester 8 were discussed. For both Semester 7 & 8, internships can be done instead of the listed subjects, depending on the student's interest.
27	Programme Elective – I: FEM (Finite Element Methods) in Semester 6 was suggested to be moved ahead of CFD (Computational Fluid Dynamics) in Semester 5; a decision was taken to swap CFD and FEM in the sequence.
28	Internship and Evaluation: Internship has to be presented for evaluation. Evaluation guidelines for self-learning components were queried; the HOD explained the process.
29	Semester 7 & 8 – Project/Internship framework: A detailed pathway framework covering the permissible combinations of Major Project and Internship across Semesters 7 and 8, along with a proposed evaluation matrix, was submitted for the Department's consideration see Annexure I at the end of this document.
30	Curriculum template and syllabus template was presented, reviewed and approved. Course Outcomes (COs), CO-PO Mapping and Assessment Framework for theory (Engineering Graphics, Engineering Mechanics, Mechanics of Solids, Basics of Civil and Mechanical Engineering) and Practical (Basic Engineering Workshop and Material Testing Lab) courses offered by the department in Semester 1 and 2 were presented, reviewed and approved.
31	It is decided to offer a honours in Mechanical Engineering programme for advanced learners of Mechanical Engineering starting from Semester 4. It is decided to finalize the course list and detailed syllabus in the next BoS meeting.
32	It is decided to offer a minor in Mechanical Engineering programme for students of other branches from Semester 3. It is decided to finalize the course list and detailed syllabus in the next BoS meeting.
Sl.No	Resolutions
1	Addressing the discussion under Sl. No. 3, Vision, Mission, Programme Educational Objectives (PEOs), Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) of the Department presented were approved by the BoS.

2	Addressing the discussion under Sl. No. 5 Curriculum Structure and Scheme of Study for the Undergraduate programme was reviewed in detail and approved. Credit distribution, audit/MOOC courses, and activity points were also reviewed and approved															
3	Addressing the discussion under Sl. No. 6 it was decided to rename the courses in the mathematics domain so as to reflect the course content. Group C Mathematics Courses <table><tr><th>Semester</th><th>Course Code</th><th>Revised Course Title</th></tr><tr><td>Semester 1</td><td>26GYMAT101</td><td>Matrices, Ordinary Differential Equations and Transforms</td></tr><tr><td>Semester 2</td><td>26GYMAT102</td><td>Partial Differential Equations and Vector Calculus</td></tr><tr><td>Semester 3</td><td>26GYMAT301</td><td>Complex Analysis and Integral Transforms</td></tr><tr><td>Semester 4</td><td>26GBMAT401</td><td>Probability Distributions and Numerical Methods</td></tr></table>	Semester	Course Code	Revised Course Title	Semester 1	26GYMAT101	Matrices, Ordinary Differential Equations and Transforms	Semester 2	26GYMAT102	Partial Differential Equations and Vector Calculus	Semester 3	26GYMAT301	Complex Analysis and Integral Transforms	Semester 4	26GBMAT401	Probability Distributions and Numerical Methods
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Semester 3	26GYMAT301	Complex Analysis and Integral Transforms														
Semester 4	26GBMAT401	Probability Distributions and Numerical Methods														
4	Addressing the discussion under Sl. No. 8 Syllabus of 26GCEST103 Engineering Mechanics and 26PCMET204 Mechanics of Solids were approved. DCC's suggestion regarding introducing the Fundamentals of Electrical and Electronics in Semester 3 as 26GCEST305 Introduction to Electrical, Electronics and AI as theory course and 26PCMEL308 Electrical and Electronics Lab (Lab Course name to be revised considering the syllabus and approved in next BoS meeting) was approved.															
5	Addressing the discussion listed under Sl. No. 9 Considering the credit of the course and allocated hours to the course it was decided not to introduce CAD as part of 26GCEST203 Engineering Graphics.															
6	Addressing the discussion under Sl. No. 12, 26PCMET503 Mechatronics was approved to be included as a core course in semester 5.															
7	Addressing the discussion listed under Sl. No. 7 by the Industry expert, as an initiate to reduce the academia - industry gap, Mechatronics course to be considered for renaming in the next BoS meeting ("Mechatronic Systems and Automation" or "Intelligent Manufacturing Systems") along with an updated, industry-aligned syllabus, and to be introduced as a main subject in Semester 5. It was decided to finalize the syllabus and the course name in the next BoS meeting.															
8	Addressing the discussion under Sl. No. 13 Semester 5: "26PCMEL508 Mechanical Engineering Lab" is renamed as "26PCMEL508 Measurements and Vibration Lab"															
9	Addressing the discussion listed under Sl. No. 15, after a detailed syllabus review it is decided to offer Thermal Engineering in Semester 5 and Heat and Mass Transfer in Semester 6 to ensure continuity in syllabus content with Thermodynamics offered in Semester 4.															
10	Addressing the discussion listed under Sl. No. 17, "26PCMEL507 Thermal Engineering lab I" was renamed as "26PCMEL507 Thermal Engineering Lab" and "26PCMEL608 Thermal Engineering 2" lab was renamed as "26PCMEL608 Heat Transfer Lab".															
11	Addressing the discussion listed under Sl. No. 18 it was decided to revise the syllabus of the course "26PBMET603 Industrial Systems" Engineering to align with the GATE syllabus and rename it as "26PBMET603 Operations Management" and is to be offered in Semester 6. "26PEMET741 Industrial Engineering" to be offered as elective instead of "26PEMET741 Management for Engineers" under Elective 4.															
12	Addressing the discussion listed under Sl. No. 20 it is decided to recommend to the academic council to increase the credit allocation to Project Phase 1 and Phase 2. It is decided to recommend to the academic council a standardization based on a sample structure provided in															

	Appendix A for Internship/Project options in the final year and their evaluation criteria.
13	Addressing the discussion listed under Sl. No. 21 it is decided to follow NPTEL/SWAYAM norms for evaluating MOOC courses and allow credit transfer based on NPTEL/SWAYAM certification for the 2026 curriculum.
14	Addressing the discussion listed under Sl. No. 22 regulations regarding MOOC courses were reviewed by the department and it is decided to retain the option of choosing MOOC courses instead of regular courses in Semester 7 and 8. This decision is made in consideration of the time needed for creating online course content by the department for the regular courses offered, so as to enable students to take these courses in online mode without leaving them with an only option of selfstudy.
15	Addressing the discussion listed under Sl. No. 23 The assessment criteria for Self Study courses was reviewed and decided as same as that for regular courses except for attendance. The course in this category is to be evaluated through Assignments and two internal assessment tests. It is decided to recommend to the academic council to restructure the internal marks distribution for such courses, so as to be based only on assignments and internal assessment tests without any weightage for attendance component (as in the case of regular courses).
16	Addressing the discussion listed under Sl. No. 24, in discussion with the department of basic science and humanities, it is decided to revise the syllabus of mathematics course in Semester 4 giving more weightage for Numerical Methods. Semester 4 mathematics course is reframed as "26GBMAT401 Probability Distributions and Numerical Methods "
17	Addressing the discussion listed under Sl. No. 25, it is decided to recommend to the academic council to include Financial management as an HMC elective in Semester 8 "26UEHUT804 Financial management".
18	Addressing the discussion listed under Sl. No. 27, it is decided to offer 26PEMET521 Finite Element Analysis an Elective 2 in semester 5 and 26PEMET 634 Computational Fluid Dynamics as Elective 3 in Semester 6
19	It is decided to follow the institute regulations in regard to value added, add on and skill development courses. Internship framework and evaluation is also decided to be followed as per the regulations.
Sl.No	Recommendations to Academic Council
1	BoS recommends increasing the credit allocation to Project Phase 1 and Phase 2. BoS recommends a standardization based on a sample structure provided in Appendix A for Internship/Project options in the final year and their evaluation criteria.
2	BoS recommends restructuring the internal marks distribution for self study courses in the final year, so as to be based only on assignments and internal assessment tests without any weightage for attendance component (as in the case of regular courses).
3	BoS recommends the inclusion of a clear distinction between Self study and Online courses of Semester 7 and Semester 8 in the institution regulations in regard to course delivery and continuous assessment.
4	BoS recommends to include Financial management as an HMC elective in Semester 8 "26UEHUT804 Financial management"

[Handwritten Signature]

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Annexure I – Semester VII & VIII Major Project / Internship Framework (Proposed)

The following framework was submitted by a BOS member (Rakesh) as a suggested structure for consideration by the Department, and has not yet been formally adopted. A follow-up meeting was requested to discuss this in detail.

Semester VII Options: Option 1 = Major Project (Phase I) | Option 2 = Internship

Semester VIII Options: Option 1 = Major Project (New) | Option 2 = Internship | Option 3 = Major Project Phase II (Continuation)

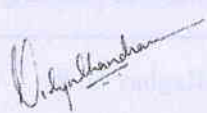
Path	Semester VII	Semester VIII	Feasibility	Remarks
A	Project Phase I	Project Phase II	Best pathway	Standard 2-semester major project
B	Internship	New Major Project	Feasible	One-semester project after internship
C	Internship	Internship	Feasible	Extended internship (8–12 months total, or two internships)
D	Project Phase I	New Major Project	Not recommended	Student abandons one project and starts another
E	Project Phase I	Internship	Possible but undesirable	Project remains incomplete
F	Internship	Project Phase II	Impossible	No Phase I exists

Rule 1: If a student registers for Major Project in Semester VII, continuation as Major Project Phase II in Semester VIII is mandatory.

Rule 2: If a student registers for Internship in Semester VII, the student may choose either Major Project (new) or Extended Internship in Semester VIII.

Proposed Evaluation Matrix

Path	Semester VII	Semester VIII	Evaluation Type
Project I → Project-II	Proposal + Progress	Final Thesis + Viva	Continuous project evaluation
Internship → Project	Internship Assessment	One-Semester Project	Separate evaluations
Internship → Internship	Internship-I	Internship-II	Industry-based continuous evaluation and Separate institute level evaluation


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Attendance Sheet

Attendees			
Sl. No	Category	Name	Signature
1	HoD (Chairperson)	Dr. Vidya Chandran	offline
2	Subject Experts	Dr. K Arul Prakash	online
		Dr. Santhakumar Mohan	online
3	Expert Nominated by Vice Chancellor	Dr. Manoj Kumar P	online
4	Representative from Industry	Mr. Motti Iype Thomas	online
5	Alumni Representative	Dr. Anties K. Martin	online
Faculty Members from Department			
Sl. No	Name	Designation	Signature
1	Dr. Mahesa Rengaraj R.	Professor	offline
2	Dr. Raghav G. R.	Associate Professor	offline
3	Dr. Gibin George	Associate Professor	offline

4	Mr. Francis Thomas	Assistant Professor	offline
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6	Mr. Nikhil Ashok.N.	Assistant Professor	offline
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ATTENDANCE SHEET – BOARD OF STUDIES MEETING

15/07/2026

Sl. No.	Name	Designation	Signature
1	Dr. Vidya Chandran	Associate Professor	
2	Dr. Arul Prakash	Professor, Dept. of Applied Mechanics, IIT Madras.	online
3	Dr. Santhakumar Mohan	Professor Mechanical Engineering, IIT Palakkad.	online
4	Dr. Manoj Kumar P.	Professor & HOD, Department of Mechanical Engineering, PSG Institute of Technology and Applied Research, Coimbatore	online
5	Mr. Motti Iype Thomas	Global Director Sales , Fluitron IPL LLC,Dubai, United Arab Emirates.	online
6	Dr. Anties Martin	Applications Manager at COMSOL, Chennai, Tamil Nadu, India	online
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13	Mr. Rakesh.A.	Assistant Professor	online
14	Mr. Noel Joseph Gomez	Assistant Professor	<i>Noel Gomez</i> 15/09/2026
15	Mr. Vishnu.H.	Assistant Professor	<i>Vishnu H</i>
16	Mr. Ajith Kumar R.	Assistant Professor	<i>Ajith</i>
17	Mr. Suraj R.	Assistant Professor	<i>Suraj</i>
18	Mr. Dinil Babu C.	Assistant Professor	<i>Dinil</i>
19	Mr. Anoob Jose	Assistant Professor	<i>Anoob</i>
20	Mr. Deepak Xavier	Assistant Professor	online
21	Dr. Rakesh P R	Assistant Professor	<i>Rakesh P R</i>
22	Dr. Krishnaprasad S Menon	Assistant Professor	<i>Krishnaprasad</i>

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HoD