

# St. Xavier's Catholic College of Engineering

Chunkankadai, Nagercoil-629003, Tamilnadu, India.

## Department of Mechanical Engineering

Date & Time : 04<sup>th</sup> Dec. 2025 at 10.30 a.m. – 01.50 p.m.

Venue : CAM Lab, SXCCE

### AGENDA

- 07.01. Confirmation of sixth BoS meeting minutes held on 30<sup>th</sup> May 2025 and Decision/Action Taken report.
- 07.02. Presentation of the proposed curriculum and getting recommendation for approval for the 1<sup>st</sup> & 2<sup>nd</sup> semester courses, detailed draft syllabi of B.E. Mechanical Engineering program and 1<sup>st</sup> semester courses, detailed draft syllabi of for M.E. Energy Engineering for regulation 2026.
- 07.03. Approval of NPTEL course for credit transfer.
- 07.04. Other matters if any.

**Members Present:** enclosed

### Minutes of the Seventh Board of Studies meeting

Seventh Board of Studies (BoS) meeting was conducted on 04-12-2025 by hybrid mode at 10.30 am. Dr. M. Felix Xavier Muthu has initiated the BOS meeting by introducing the external members and internal members. Dr. G. Antony Miraculas, chairman of the Board of Studies (BoS) shared the proposed curriculum and courses of first and second semester UG & first semester PG Mechanical Engineering and started the discussion. The Principal extended a warm welcome to the newly inducted BoS members and expressed sincere appreciation for their willingness to contribute to the academic development of the department. The Principal conveyed confidence that their expertise and insights would greatly strengthen the curriculum and deliberations of the Board.

**07.01. Confirmation of Sixth BoS meeting minutes held on 30-05-2025 and Decision/Action Taken report.**

Sl. No.	Minutes of 5 <sup>th</sup> BOS meeting	Action taken	Remarks
1	The Course Outcomes (COs) for project work should comprehensively address all the Programme Outcomes (POs) to enable effective mapping.	COs for project work CO was reframed.	Confirmed by BoS
2	The evaluation rubrics for Project Work shall be standardized and made common across all departments.	Standard evaluation rubrics was formulated	Confirmed by BoS

**07.02. Presentation of the proposed curriculum and getting recommendation for approval for the 1st & 2nd semester courses, detailed draft syllabi of B.E. Mechanical Engineering program and 1st semester courses, detailed draft syllabi of for M.E. Energy Engineering for regulation 2026.**

The meeting was convened to review and refine the curriculum structure, course content, nomenclature, and academic regulations for the Mechanical Engineering (UG) programme and the M.E. Energy Engineering (PG) programme. The following detailed points were discussed and recommendations were made:

#### **UG Programme: B.E. Mechanical Engineering**

##### 1. Course Outcomes (COs)

- All Course Outcomes across the syllabus must be reviewed thoroughly.
- Avoid repetitive phrases such as “and” occurring multiple times in the same CO statement.
- Ensure consistency and clarity across all COs in the entire curriculum.

##### 2. First Semester

- A consolidated table listing all course categories along with their corresponding credit allocation should be provided at the beginning.
- As an autonomous institution, it was recommended to re-evaluate and possibly reduce the total programme credits to the range of 160–165 credits.

##### 3. Second Semester

- Rename “Computer Aided Drafting” to “Computer Aided Machine Drawing”.
- For Mechanical Engineering students, programming should begin with C language and progress to Python.

##### 4. Third Semester

- The course name “Coding Skills and Soft Skills – Phase I” should be replaced with a specific title. Rephrase the title for subsequent semesters also.

## 5. General Course and Curriculum Modifications

- Rename “Project Management and Professional Ethics” as it functions as an induction-level programme.
- Rename “Hydraulics and Pneumatics” to “Oil Hydraulics and Pneumatics”.

## 6. Internship Guidelines

- Students may be encouraged to undergo international internships.
- Attendance relaxation for internship participants should be included in regulations.

## 7. Syllabus Development

- Each course must contain five Course Outcomes and five Course Objectives.
- Redesign the course “Foundations of Modern Manufacturing” as “Introduction to Mechanical Engineering”, referencing NIT Trichy and Anna University syllabi.

## 8. Engineering Drawing

- Include introduction to perspective projection in Unit 5.
- Replace the verb “produce” in CO4.
- Prescribe Venugopal as Textbook and Jeyapoovan as Reference.

## 9. Engineering Mechanics

Include latest ‘Pazhinisamy M., Engineering Mechanics, 3rd Edition, Charulatha Publications’ as a reference book.

## 10. Computer Aided Machine Drawing

- Add Fits and Tolerances; consider inviting an automobile specialist for a guest lecture.
- Add conversion of 2D drawings to 3D modelling.

## 11. Engineering Makerspace Studio

- Replace traditional carpentry tasks with wood carving and laser cutting.
- Add assembly and disassembly of an automobile gearbox.

## 12. Additional Programme Recommendations

- Verticals to be structured based on alumni and industry inputs.
- Add Industry 4.0 as an elective.
- Include more AI/ML electives relevant to Mechanical Engineering.

## **PG Programme: M.E. Energy Engineering**

### 1. First Semester

- Add Optimization and Statistics in Mathematics.

- Include a course on Energy Auditing.
- Include the following micro credit course:
  - Research Article Replication Practice – 1 credit
  - Energy MATLAB Simulation – 1 credit

## 2. Third Semester

- Restrict Semester III to three courses since they have to do project work.
- Remove the industry-oriented course from Semester III.
- Move “Waste to Energy” from core to elective under the name “Waste Management and Energy Generation”.

## 3. Instrumentation for Energy Systems

- Rename the course to “Instrumentation and Control”.
- Remove all content on air pollutants from Unit 4.
- Replace “Liquid Biofuels” with “Future Fuels” in Unit 5.

## Conclusion

The above recommendations were discussed and accepted for further revision and implementation, subject to approval by the academic bodies.

### 07.03. Approval of NPTEL course for credit transfer.

<b>Academic Year</b>		2024-2025		
<b>Semester</b>		5		
<b>Course Code and Title</b>		24ME130 ADVANCES IN ADDITIVE MANUFACTURING OF MATERIALS		
<b>Duration in Weeks</b>		12		
<b>Sl. No.</b>	<b>Register Number</b>	<b>Name</b>	<b>Marks As Per NPTEL Certificate out of 100</b>	<b>Grade As Per AU Norms</b>
1	962223114046	MICHEAL JONES R	66	B+
2	962223114061	SANJAY M	75	A

<b>Academic Year</b>		2024-2025		
<b>Semester</b>		7		
<b>Course Code and Title</b>		24ME130 Metal Additive Manufacturing		
<b>Duration in Weeks</b>		12		

Finally, The Chairman of BOS thanked the expert members and the faculty members for their valuable suggestions and support. Around 02.00 pm the meeting concluded with cheerful conversation.

Sl. No.	Name of the Expert	Category	Signature
1	Dr. A. Krishnaveni, Professor & Head (PG & Part Time) Department of Mechanical Engineering, Government college of Engineering, Tirunelveli	University Nominee	
2	Dr. N. Siva Shanmugam, Professor, Department of Mechanical Engineering National Institute of Technology, Tiruchirappalli – 620015	External stakeholder (Subject Expert)	 04.12.2025
3	G. Jims John Wessley, Associate Professor (and Head), Department of Aerospace Engineering, Karunya Institute of Technology and Sciences, Coimbatore	External stakeholder (Subject Expert)	
4	Nishanth Joseph. J Head, IT projects – Supply chain and warehouse logistics, Bangalore.	External stakeholder (Industrial Expert)	
5	Dr. M.A. Aravindh, Scientist 'D', Ministry of New and Renewable Energy, Government of India, New Delhi	External stakeholder (Alumni Member)	

  
4/12/2025  
**HoD (MECH)**  
Dr. G. Antony Miraculas

  
**DEAN (ACADEMICS)**  
Dr.R.P.Anto Kumar  
Prof. Dr. R. P. ANTO KUMAR, M.E., Ph.D.,  
Dean (Academics)  
Member Secretary (Academic Council)  
St. Xavier's Catholic College of Engineering  
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**PRINCIPAL**  
Dr.J.Maheswaran  
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