Department of Chemical Engineering

KPR Institute of Engineering and Technology

KPRIET
Learn Beyond

Twelfth Board of Studies Meeting

Venue: Daffodil, Imperial Hall, KPRIET.

Date: 30-05-2025

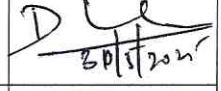
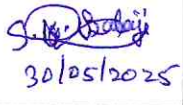
Time:10.00 AM

Agenda

1. Welcome Address.
2. Review of Minutes of Previous BoS Meeting and Action Taken.
3. Consideration and Approval of Professional Electives and Open Electives under Regulations R2021.
4. Proposal and approval for Additional Credit Courses (e.g., Industry Oriented Course, Value Added Course and MOOC Courses).
5. Consideration and Approval for Capsule Courses.
6. Proposal and approval of Semester I & Semester II Curriculum and Syllabus for R2025 Regulations.
7. Any Other Matters.

Members Present

S. No.	Name of the member with Designation	Category	Signature
1.	**Dr. S. Balasubramanian** Professor & Head Department of Chemical Engineering KPRIET, Coimbatore - 641407.	Chairman Board of Studies	30/5/2025
2.	**Dr. P. Kalaichelvi** Professor Department of Chemical Engineering National Institute of Technology Trichy - 620015.	Anna University Nominee	Online
3.	**Dr. Udaya Bhaskar Reddy Ragula** Associate Professor Department of Chemical Engineering Amrita Vishwa Vidyapeetham Amrita Nagar Coimbatore - 641112.	Academic Experts (Outside the Parent University)	Online
4.	**Dr. L. Muruganandam** Professor Department of Chemical Engineering Vellore Institute of Technology Vellore - 632014.	Academic Experts (Outside the Parent University)	Online

5.	**Mr. J. Ashwin Nirmal** Engineer - Process WOOD India Engineering Project Pvt. Ltd. Chennai - 600113.	Industry Experts	Online
6.	**Dr. A. K. Priya** Professor Department of Chemical Engineering KPRIET, Coimbatore - 641407.	Faculty Member	Online
7.	**Dr. S. Karunakaran** Associate Professor Department of Chemical Engineering KPRIET, Coimbatore - 641407.	Faculty Member	
8.	**Dr. G. Surendran** Associate Professor Department of Chemical Engineering KPRIET, Coimbatore - 641407.	Faculty Member	Online
9.	**Dr. E. Nakkeeran** Associate Professor Department of Chemical Engineering KPRIET, Coimbatore - 641407.	Faculty Member	
10.	**Dr. R. Umapriya** Assistant Professor III Department of Chemical Engineering KPRIET, Coimbatore - 641407.	Faculty Member	
11.	**Dr. M. Laxmi Deepak Bhatlu** Assistant Professor III Department of Chemical Engineering KPRIET, Coimbatore - 641407.	Faculty Member	Online
12.	**Mr. K. Murugesan** Assistant Professor II Department of Chemical Engineering KPRIET, Coimbatore - 641407.	Faculty Member	
13.	**Mr. N. Arunkumar** Assistant Professor II Department of Chemical Engineering KPRIET, Coimbatore - 641407.	Faculty Member	
14.	**Dr. S. Pranav** Assistant Professor II Department of Chemical Engineering KPRIET, Coimbatore - 641407.	Faculty Member	Online
15.	**Ms. L. Dharani** Assistant Professor I Department of Chemical Engineering KPRIET, Coimbatore - 641407.	Faculty Member	
16.	**Mr. S. K. Balaji** II B.Tech. Chemical Engineering KPRIET, Coimbatore - 641407.	Student Member	

17.	**Mr. B. Chazvino Praise** II B.Tech. Chemical Engineering KPRIET, Coimbatore - 641407.	Student Member	30/05/25

Minutes of the 12th Meeting of The Board of Studies (BoS)

The meeting started with the Chairman, Department of Chemical Engineering welcoming the members of the Board of Studies. The Vision, Mission of the Institute and the Department were presented. The points in the agenda were presented one-by-one and the following were discussed.

RESOLUTIONS

1. Action taken on the minutes of the 11th BoS meeting

Sl. No.	Suggestions	Suggested By	Action Taken
1.	Inclusion of virtual lab experiments from MoE NMEICT.	BoS Members	Approved and integrated into lab courses from AY 2025–26; URL (https://www.vlab.co.in/broad-areachemical-engineering) shared with faculty and lab staff.
2.	Approval of industry-oriented, value added, capsule, and NPTEL courses	BoS Members	Courses are added to existing list of courses.
3.	Addition of "Flow Simulation for Beginners" as a capsule course; OpenFOAM, the open-source software was recommended	Dr. L. Muruganantham and Dr. Udaya Bhaskar Reddy Ragula	Course syllabus under preparation; OpenFOAM shall be included in advanced CFD topic.
4.	Use of user-defined functions in DWSIM; OpenFOAM for microscale simulations	Dr. L. Muruganantham	Shall be integrated into the R2025 curriculum and syllabus as part of the upcoming academic revision
5.	Importance of safety-related software; LCA using OpenLCA	Mr. Ravi Ramasamy and Dr. Udaya Bhaskar Reddy Ragula	Based on feedbacks, suggestions will be incorporated in upcoming new R2025.

Sl. No.	Suggestions	Suggested By	Action Taken
6.	Introduce "Data Analytics for Chemical Engineers" using Power BI	Dr. Udaya Bhaskar Reddy Ragula	Introduce "Data Analytics for Chemical Engineers" using Power BI
7.	Presentation of CO-PO attainment; target to be revised	Dr. S. Balasubramanian	CO-PO attainment target revisions are under review by department and will be finalized for the R2025.
8.	Revise COs and Assessment Pattern; separate pattern for analytical/case-studybased courses	Dr. S. Balasubramanian and Dr. P. Kalaichelvi	Shall implemented in the proposed R2025 syllabus framework for analytical and design-based courses in line with Institute level recommendations.
9.	Include experienced faculty (>5 course deliveries) for question paper setting	Dr. P. Kalaichelvi	Complied. Criterion updated in question paper setters' policy; circulated to departments.
10.	Include employment details in Program Exit Survey	Dr. P. Kalaichelvi	Survey format update with employment status section is communicated to IQAC and waiting to receive the finalized version for implementation.
11.	Appreciation for R2025 curriculum initiatives	BoS Members	Noted; institutional recommendations were collected for policy documentation.
12.	Flexible mark schemes for design courses	Dr. Udaya Bhaskar Reddy Ragula	Noted. Assessment policy is communicated and shall be confirmed in discussion with the Institute IQAC cell and CFAC for consideration
13.	Credit allocation for non-academic activities to be institute-level decision	Dr. P. Kalaichelvi	Forwarded to Institute Academic Council for centralized decision.

Sl. No.	Suggestions	Suggested By	Action Taken
14.	Start Program Core subjects from second semester	BoS Members	R2025 curriculum is in progress. The core subjects shall be introduced based on the institute level recommendations.
15.	Suggestion for open-book exams and case-based assignments	Dr. S. Balasubramanian, Dr S. Karunakaran, Dr. Udaya Bhaskar Reddy Ragula, and Dr. P.Kalaichelvi	One course per semester to pilot open-book/internet-based assignments; review postimplementation in upcoming R2025
16.	GATE preparation support to enhance employability	Mr. Ravi Ramasamy	Special sessions and mentoring planned; shall be added to the academic calendar.
17.	Clarification on Revised Bloom's Taxonomy inclusion	Dr. P. Kalaichelvi, Dr. S. Balasubramanian	Already implemented; reinforced through faculty orientation.
18.	Include software tools (MATLAB, Aspen Plus, DWSIM) from V Semester	Ms. S. Aishwarya (2nd Year Student) and Ms. B. Umamaheshwari (4th Year Student)	Software tools shall be formally embedded by the subject teachers in R2025 regulations and syllabus.
19.	Offer U21CH703 Process Equipment Design in 6th Semester	Ms. B Umamaheshwari (4th year, Student)	The course shall be considered for relocation to the 6th semester, subject to the outcome of the ongoing curriculum and syllabus analysis for R2025.
20.	Check content overlap in safety related electives	Mr. G. Kumaran (4th year, Student)	Curriculum committee reviewing content overlap; adjustments to be finalized.
21.	Organize Faculty Development Program on Machine Learning for Chemical Engineers with Dr. Arun K Thangarila	Dr. P. Kalaichelvi	FDP is proposed for upcoming semester break/vacation. The FDP will be coordinated by Dr AK Priya

2. Minutes of the 12th BoS meeting:

1. Dr. P. Kalaichelvi inquired about the inclusion of the Digital Technologies course in the first semester. Dr. S. Balasubramanian clarified that it is an institute-wide course, and for Chemical Engineering, it is customized to focus on relevant digital technology applications. However, based on the Institute level recommendations the course title and content will be finalized.
2. Dr. L. Muruganandham raised a query regarding the inclusion of C programming in Semester I and asked about Python Programming. Dr. S. Balasubramanian explained that Python programming is integrated and proposed under the title Artificial Intelligence for Chemical Engineers in Semester II.
3. Dr. L. Muruganandham suggested to integrate both combining C and Python in Semester I. Dr. S. Balasubramanian clarified that the course structure is based on data input, data processing and data output visualization with lab components with the use of library such as Pandas and NumPy in Python.
4. Dr. S. Balasubramanian shared that a specialization track is proposed for interested students under Honors with Specialization in Regulation 2021.
5. Dr. L. Muruganandham sought clarification regarding the availability of open electives for Chemical Engineering students. Dr. S. Balasubramanian responded with the list of available open elective courses in Regulations 2021. Dr. L. Muruganandham asked about the interdisciplinary components adopted in regulations 2021 for final year project. Dr. Balasubramnian responded with the examples of interdisciplinary final-year projects.
6. Dr. L. Muruganandham requested the detailed curriculum structure. Dr. S. Balasubramanian shared the overview of curriculum structure for Semesters I and II and mentioned that the finalization of subjects and curriculum structure are in progress and it will be shared to all the BoS members once it is finalized.
7. Dr. L. Muruganandham inquired about the total number of credits under regulation 2025 and Dr. S. Balasubramniana stated that the total credits to be obtained in B.Tech. wChemical Engineering is 160 as per AICTE.
8. Dr. L. Muruganandham raised a question about duration and credit allocation for internship followed by that he also recommended 12 weeks of internship for enhanced industry exposure. Dr. S. Balasubramanian stated that 8 –12 weeks are currently proposed in Regulations 2025 and it is under discussion at Institute level and it will be shared once it is finalized.
9. Dr. L. Muruganandham asked about the support mechanism for slow learners. Dr. S. Balasubramanian explained traditionally extra classes were arranged and followed with the slow learners. He also expressed that a customized learning method can be proposed for the students based on available resources. and welcomes additional suggestions. Dr. L. Muruganandham supported implementing one-on-one mentoring by faculty members to the

slow learners.

10. Dr. L. Muruganandham appreciated the R-2025 curriculum and remarked that its implementation would be highly beneficial.
11. Dr. S. Udhaya Bhaskar Reddy shared his experience on teaching the course "Introduction to Chemical Engineering". He proposed to offer it in semester II instead of semester I, stressing that the first year students shall be introduced to foundational concepts alone.
12. Dr. S. Udhaya Bhaskar Reddy suggested to introduce the course "Artificial Intelligence in Chemical Engineering" in Semester III, as students in early semesters may lack sufficient knowledge on data and its structure. He proposed introducing "Python Programming for Chemical Engineers" in Semester III. Dr. S. Balasubramanian agreed to take the suggestion based on Institute level recommendations.
13. Mr. S. K. Balaji, II B.Tech. Chemical Engineering student pointed out that "Chemistry for Technologists" was not included in Semester I and suggested its addition for Chemical Engineering students. He appreciated the integration of laboratory components in basic sciences courses (Physics, Chemistry, etc.)
14. Mr. N. Arunkumar stated that the Introduction of AI course may be too early for the students.
15. Dr. S. Karunakaran requested the inclusion of "Process Calculations" in Semester II.
16. Dr. L. Muruganandham proposed adding "Chemical Process Industries" in Semester II for practical exposure.
17. Dr. S. Karunakaran asked about the inclusion of Machine Learning and Data Structures in the Chemical Engineering curriculum. Dr. L. Muruganandham explained these are covered under AI, as they are its subsets.
18. Dr. P. Kalaichelvi suggested that the "Introduction to Chemical Engineering" course could be designed to serve as a foundation for introducing "Artificial Intelligence in Chemical Engineering" in Semester II.
19. Dr. P. Kalaichelvi emphasized the importance of at least one Industrial Visit (IV) for first-year students as part of the "Introduction to Chemical Engineering" course. Dr. S. Balasubramanian stated that five industrial visits are proposed in Regulations 2025 and it will be followed.
20. Dr. P. Kalaichelvi suggested aligning internships with specialization verticals to enhance relevance and learning outcomes.
21. Meeting ended with Thank note to all the members participated in the discussions.

20/07/2025

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