



**CHAITANYA BHARATHI  
INSTITUTE OF TECHNOLOGY**

An Autonomous Institute | Affiliated to Osmania University  
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COMMITTED TO  
RESEARCH,  
INNOVATION AND  
EDUCATION

**45**  
years

## **CHEMICAL ENGINEERING DEPARTMENT**

### **Minutes of the 12<sup>th</sup> BoS Meeting**

#### **Minutes of the 12 th BOS meeting held on 23rd April 2024**

The 12th BOS meeting was conducted in hybrid mode as per the requests and availability of the external members. The meeting started at 9:30 AM as per the schedule given.

#### **Agenda I: Introductory remarks by HOD (Chairman Board of Studies)**

Dr M Mukunda Vani, Head of the Department and Chairman, BOS, cordially invited the Members of the newly constituted BOS and briefed about achievements of the department, activities undertaken in the department during the previous academic year (2023-24)

#### **Agenda II: Introduction of the Members present by HOD**

##### **BOS Members Present**

##### **External Members:**

##### **Offline:**

1. Dr. Kishalay Mithra, Professor, IIT Hyderabad
2. Dr Ram Prasad, Technical Fellow in Product analytics, Carrier, Hyderabad
3. Dr Srinivas Appari, Associate Professor, BITS-Pilani, Pilani campus, Rajasthan

##### **Online:**

4. Dr. Sunil Kumar, Professor, Department of Chemical Engg, IIT Tirupati
5. Lakshminarayanan Samavedham, Associate Professor in the Department of Chemical and Biomolecular Engineering National University of Singapore

##### **Internal Members**

1. Dr. M. Mukunda Vani, HOD Chemical Engineering and Chairman BOS.
2. Dr P.V. Naga Prapurna, Associate Professor, Chemical Engineering Dept.
3. Dr M Mallaiyah, Associate Professor, Chemical Engineering Dept.
4. Sri. I. Balakrishna, Sr Assistant Professor, Chemical Engineering Dept.

All other faculty members of the Chemical Engineering Department.

#### **Agenda III: To review and approve the R22 Scheme for V to VIII semesters.**

The Scheme for semesters V to VIII was approved by the BoS.

Credits, Lecture hours and other details in the scheme are verified. The following are the highlights.

- i. Members expressed that the Artificial intelligence in Chemical Engineering subject can be offered in VII semester after completing Process Control subject.

#### **Agenda IV: To review and approve V to VIII semesters syllabus**

The syllabus of V to VIII semesters are discussed at length. The following suggestions are made by the BoS members.

- i. All the subjects can have five (5) Course outcomes.

- ii. Numerical methods can be incorporated into the curriculum – either as a part of other department course (Mathematics) or in Process Modeling and Simulation Lab course.
- iii. Numerical methods course content and related projects can be included in the lab course to enable the students learn and implement simulation based assignments.
- iv. Numerical Methods can be taught as a separate course along with associated Lab. ODE 45 and ODE 15S can be included in the syllabus.
- v. MATLAB coding may be taught during the courses of Chemical Reaction Engineering-I and II, Heat Transfer, Mass Transfer Operations, etc.
- vi. Few open-source software are available for reaction engineering courses, like GASEQ and DETCHEM, which may be introduced during the respective chapters.
- vii. Python and Aspen HYSYS may be used in the Process Modeling and Simulation course.
- viii. Exposure to Climate Science can be done if possible.
- ix. Scopes 1, 2 and 3 emissions can be included in Sustainable Engineering course.
- x. Add industrial perspective into Safety and Hazard Analysis course.
- xi. Pressure swing Adsorption for Carbon capture can be included in MTO-II.
- xii. In the subject Artificial Intelligence in Chemical Engineering, time series modelling, ARX algorithm can be included, and Unit 2 and Unit 5 can be interchanged. Also, fundamentals of Deep learning can be introduced.
- xiii. Applied AIML can be offered as an elective.
- xiv. In Process control, time series modelling can be introduces in unit 5.

**Agenda V:** To approve Honors and Minor degree courses.

The committee is apprised of the list of courses for Honors and Minor degree during the AY 2023-24. Approval was obtained for the courses. Details of the students who enrolled for Honors degree and Minor degree in the year 2023-24 is furnished.

**Agenda VI:** Any other matter with the permission of the Chair

It was suggested that the MATLAB course can be offered as a winter upskilling course if it cannot be accommodated in any regular course.

As there are no other items to be discussed, the meeting ended on a positive note and the coordinator, BoS committee Mr. I Bala Krishna proposed vote of thanks to the members present.



I Bala Krishna  
Coordinator, BoS,



(Dr M Mukunda Vani)  
Head and Chairman BoS.