VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

SCHOOL OF CHEMICAL ENGINEERING (SCHEME)

IN ASSOCIATION WITH

SOCIETY OF PETROLEUM ENGINEERS - VIT

PRESENTS

VALUE ADDED PROGRAM

ON

COMPUTER AIDED SIMULATION IN CHEMICAL ENGINEERING (VAC1815)

Venue: Process Systems Laboratory, SMV G31/online

Date: 5th March to 20th March

No. of. Participants: 60

Registration Fees: INR. 500 per head

Registration Link: https://events.vit.ac.in/

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VAC1815, WINTER SEMESTER 2021-22

PROGRAMME SCHEDULE

Class No	Date	Time	No of Hours	Topics will be covered	Faculty
1	05.03.2022	10.00 am to 01.00 pm	3	Introduction to process simulators -Aspen Plus & Hysys; Thermodynamic model selection	MP
2	05.03.2022	2.00 pm to 5.00 pm	3	Use of simple models; thermodynamic properties evaluation	LMN
3	06.03.2022	10.00 am to 01.00 pm	3	Process equipment simulation: Mixer; Splitter – Sensitivity Analysis	MP
4	06.03.2022	2.00 pm to 5.00 pm	3	Heat Exchanger – Design and Rating	BKN
5	12.03.2022	10.00 am to 01.00 pm	3	Heat exchanger networks using Aspen Energy Analyser	BKN
6	12.03.2022	2.00 pm to 5.00 pm	3	Pinch analysis	BKN
7	13.03.2022	10.00 am to 01.00 pm	3	Flash drum (Hysys); Multi-stream heat exchanger	MP
8	13.03.2022	2.00 pm to 5.00 pm	3	Binary mixture separation using distillation	MP
9	19.03.2022	10.00 am to 01.00 pm	3	Multicomponent separation (Using Hysys)	BKN
10	19.03.2022	2.00 pm to 5.00 pm	3	Reactor: CSTR; PFR; CSTR/PFR combination	MP
11	20.03.2022	10.00 am to 01.00 pm	3	Economic analysis	BKN
12	20.03.2022	2.00 pm to 5.00 pm	1+2	Dynamic simulation study & Test	BKN

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COURSE OBJECTIVE:

This course aims to provide students rich hands on experience on the use of simulation tools such as MATLAB; ASPEN PLUS; COMSOL MULTIPHYSICS in addressing Chemical Engineering Problems so that the students will be able to simulate the design of new plants, debottlenecking, optimizing the performance of units.

COURSE OUTCOME:

- To analyze physical and chemical phenomena involved in various processes
- To develop mathematical models for various chemical processes
- To solve real life problems from industry using the simulation tools.

WHO MAY BENEFIT:

The course will be beneficial to B.Tech Chemical Engineering Students

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RESOURCE PERSONS

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CO ORDINATORS

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FOR FURTHER DETAILS, CONTACT-

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