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 ADDDED course

ON

COMPUTER AIDED SIMULATION IN CHEMICAL ENGINEERING (VAC1857)

Venue: Process Systems Laboratory, SMV G17

Date: 5th September to 26th September

No. of. Participants: 65

Registration Fee: INR 600 +GST

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VAC1857, FALL SEMESTER 2026-27

PROGRAMME SCHEDULE

Class No	Date (Day)	Time	No of Hours	Topic(s)	Faculty
1	05.09.2026 (Saturday)	9.00 AM to 1.00 PM	4	• Waste heat recovery Heat pumps for waste heat recovery	Prof G P R
2	05.09.2026 (Saturday)	2.00 PM to 6.00 PM	4	• Introduction to process simulators - Aspen Plus & Hysys; • Thermodynamic model selection	Prof. L M N
3	06.09.2026 (Sunday)	9.00 AM to 1.00 PM	4	• Waste heat recovery in distillation	Prof. B K N
4	06.09.2026 (Sunday)	2.00 PM to 6.00 PM	4	• Estimation of energy and CO_2 emissions	Prof. G P R
5	12.09.2026 (Saturday)	9.00 AM to 1.00 PM	4	• Simulation of waste heat recovery systems	Prof. B K N
6	12.09.2026 (Saturday)	2.00 PM to 6.00 PM	4	• Waste heat reduction in vacuum systems	Prof. G P R
7	26.09.2026 (Saturday)	9.00 AM to 1.00 PM	4	• AI in Process Engineering	Prof. SRD
8	26.09.2026 (Saturday)	2.00 PM to 6.00 PM	4	• Test and Feedback Session followed by Valedictory	Prof. G P R Prof. B K N

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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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