



## About The STC

Process simulation is a discipline transversal to all the areas of chemical engineering. The future success of the chemical process industries mostly depends on the ability to design and operate complex, highly interconnected plants that are profitable and that meets quality, safety, environmental and other standards. To achieve this goal, the software tools for process simulation and optimization are increasingly being used in industry and academia. The development of many engineering projects demands the simulation studies as like the preliminary feasibility analysis, conceptual design, detailed design with sensitivity analysis, prior to the process operation. The process dynamics of a chemical or physical transformation can be predicted by solving mathematical models that involves the calculation of mass and energy balances coupled with phase equilibrium, transport properties and chemical kinetics. To improve the design, operability, safety, and productivity of a chemical process with minimizing capital and operating costs, the engineers concerned must have a solid knowledge of the process.

This short-term course will target this aspect amongst the others, with an objective to impart process design and developmental skills of chemical process systems, plant simulation and its sensitivity analysis through intensive lectures, case studies and hands on sessions. This course emphasizes the use of process simulators and is designed to give rich hands-on-experience to participants. The problems chosen ranges from simple problems encountered in day to day life to practical/industrial problems. This well-organized STC is divided into two parts with widely used simulators. Part-I includes fundamentals aspects and flowsheeting of chemical processes Part-II includes hands-on sessions with available simulators such as 'ASPEN PLUS' and an open source simulator 'DWSIM'.

## Organizing committee

### Patrons

Prof. N. P. Padhy, Director MNIT Jaipur

### Program Chair

Dr. Sushant Upadhyaya

### Conveners

Dr. Rohidas Gangaram Bhoi

Dr. Md Oayes Midda

### Coordinators

Dr. Virendra Kumar Saharan

Dr. Dipaloy Datta

Dr. Surajit Ghosh

### Contact(s) for registration support

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## SHORT-TERM COURSE UNDER DIAMOND JUBILEE CELEBRATIONS ON

## Process Simulators for Chemical Engineering Applications (DWSIM & Aspen Plus) (March 06–10, 2024)



ORGANIZED BY

Department of Chemical Engineering

Malaviya National Institute of Technology

Jaipur – 302017

## About MNIT

The institute was established in 1963 with the name as Malaviya Regional Engineering College, Jaipur, as a joint venture of the Government of India and the Government of Rajasthan. Subsequently, on June 26, 2002, the college has been given the status of National Institute of Technology and on 15 August 2007, proclaimed as Institute of National Importance through the Act of Parliament. The Institute is fully funded by Ministry of Human Resource Development (MHRD), Government of India. More than 12,000 students have already been graduated since its establishment.



## About Chemical Engg. Dept.

The Department of Chemical Engineering was commenced in the year 1988. The PG Programmes of M.Tech. and Ph.D. in chemical engineering was started in year 2006 and 2004, respectively. The current sanctioned strength of B.Tech. and M.Tech program is 96 and 30, respectively. The department is well equipped with good undergraduate and research laboratories. The department aims to provide students with a balance of intellectual and practical expertise that enables them to serve the worldwide chemical industry as well as the society as a whole. The curriculum has been designed to meet the programme goals and objectives that lay more stress on learning under the guidance of a vibrant and highly qualified faculty.

## Thrust of the STC

This well-organized STC is divided into three parts.

- Part-I includes fundamentals on process simulation with background of thermodynamics, mass and energy balances.
- Part-II consists of basic concepts, design of unit operations, flowsheeting, and hands-on sessions with sensitivity analysis in an open source simulator 'DWSIM'. A demonstration using Aspen plus will also be conducted.
- Part-III includes design and applications of process units with case studies.

### Targeted audience

Short term course may be attended by the following:

**Students** - UG, PG, PhD (Chemical Engineering)

**Faculty of Engineering** - Chemical Engineering

**Other professionals** – Engineers and scientists from Industry and R&D organizations

### Participation Fee (inclusive of GST)

All registered participants will get participation certificate.

The participation fee including GST is mentioned below.

<b>For MNIT Students:</b>	Rs.400
<b>Student UG/PG/PhD Scholars:</b>	Rs.600
<b>Academician:</b>	Rs.1500
<b>Industries &amp; R&amp;D labs:</b>	Rs.2500

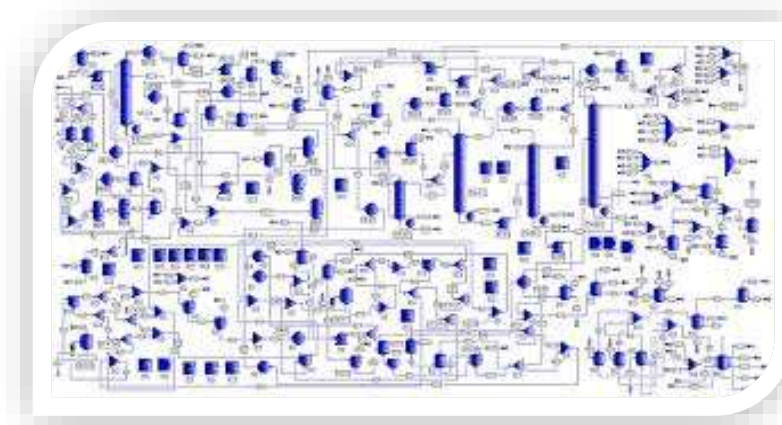
**Payment mode:** NEFT/IMPS

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## Process Simulators for Chemical Engineering Applications (DWSIM & Aspen Plus)

(March 06–10, 2024)



### Registration (Fill the Google Form)

[https://docs.google.com/forms/d/e/1FAIpQLSdZq1rjE1eAAy\\_N9U7CylISnBUIjynqvNbBUV-a3irc8Cxyng/viewform?usp=sharing](https://docs.google.com/forms/d/e/1FAIpQLSdZq1rjE1eAAy_N9U7CylISnBUIjynqvNbBUV-a3irc8Cxyng/viewform?usp=sharing)

Name: .....  
Designation: .....  
Department: .....  
Organization: .....  
Email: .....  
Mobile: .....

### Registration Details:

Transaction/ Reference No. ....  
Date of transaction: .....  
Registration amount: .....