ABOUT NIT HAMIRPUR

National Institute of Technology Hamirpur is one of the thirty-one NITs of the country, which came into existence on 7th August 1986 as Regional Engineering College, a joint and cooperative enterprise of the Govt. of India and Govt. of Himachal Pradesh. On 26th June 2002, REC Hamirpur was awarded the status of Deemed University and upgraded to National Institute of Technology. NIT Hamirpur is an institute of National importance set up by an act of Parliament namely the National Institute of Technology Act 2007 which received the accent of the President of India on 5th June, 2007.

ABOUT CHEMICAL ENGG. DEPT.

Department of Chemical Engineering was established in the year 2013, with a mission to impart high quality engineering education and to mold the students to meet the ever-growing demand of technical manpower in the field of Chemical Engineering. The department offers three programs B. Tech, M.Tech and Ph.D. The department comprises of several laboratories for the undergraduates catering to the needs of the curriculum.

In addition, computational/ experimental and research laboratories for the postgraduates and doctoral resources are already in place. All the faculties are highly qualified and well dedicated to teaching and research in various fields of chemical engineering as well as in different interdisciplinary areas of engineering.

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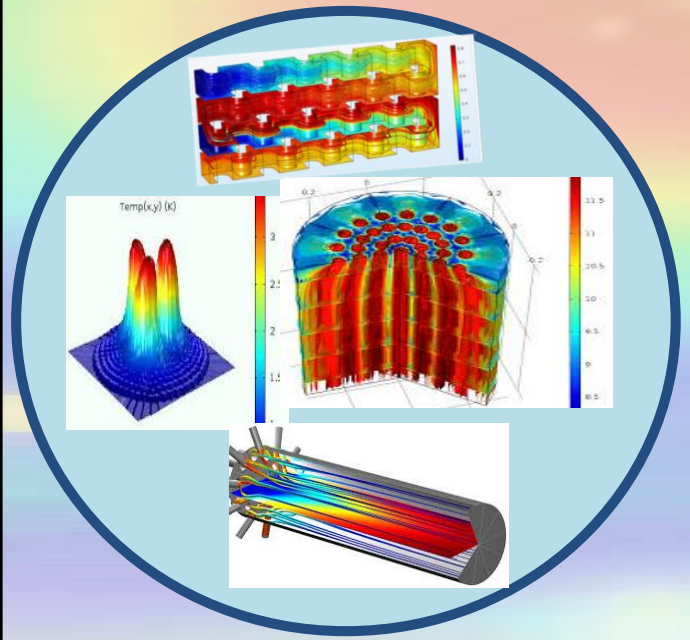
ONLINE SHORT-TERM COURSE

ON

MODELLING AND SIMULATION FOR TRANSPORT PROCESSES

(04 - 08th November 2020)



ORGANIZED BY

Department of Chemical Engineering
National Institute of Technology
Hamirpur – 177005
Himachal Pradesh-India

ABOUT THE STC

Modeling and Simulation has been a primary tool for academicians, researchers, and industrialists. It is a complementary tool to the experimentations where some analytical/computational tools are used to calculate the results of physical phenomena. In this way, actual experimentation can be avoided which is costly and time-consuming instead of mathematical knowledge and computer computation power to solve real-world problems cheaply and in a time-efficient manner. Therefore the short-term course will provide basic ideas and concepts to design a model of any physical experimental set-up and simulation for the results. Subsequently, it will be helpful in translating pilot-plant to industrial scale.

This e-STC has many hands-on training sessions on the modeling of various real-life examples such as reactor, heat exchanger, and microfluidic devices and their simulation to get optimum design parameters for physical set-up. This course will be helpful for UG/PG, Ph.D. students, faculties, and industrialists to enhance their knowledge in the field of modeling and simulation. The participants will be benefited by prominent speakers from reputed institutions and R&D organizations to clear fundamental/analytical and numerical aspects whereas visualization of transport processes through pre-processing, solver, and post-processing through hands-on sessions with available computational tools such as COMSOL Multiphysics, Ansys, MATLAB.

OBJECTIVES OF THE STC

- To provide fundamental knowledge of mathematical modeling required for mass, momentum, and heat transfer processes.
- To get approximate results from analytical/numerical modelling and simulation before actual physical experimentation.
- To validate modeling and simulation results with the experimental data.

THRUST OF THE STC

This well organized STC is divided into two parts.

- It includes fundamentals on modeling and simulation with background of mass, momentum and energy transport processes.
- It consists of basic concepts, pre-processing and post processing with hands on exercises with COMSOL Multiphysics, ANSYS and MATLAB.

WHO CAN APPLY

- **Students-** UG, PG, Ph.D.
- **Faculty Members**
- **Other professionals-** Engineers and scientists from Industry and R&D organizations

PARTICIPATION FEE

- **Student (UG/PG/PhD):** Rs. 200
- **Academia/ R&D Labs:** Rs. 500
- **Industry participants:** Rs. 1000

IMPORTANT DATES

- **Last Date of Registration**: 02/11/2020
- **Confirmation to Participants** : 03/11/2020

HOW TO APPLY

The interested candidates must deposit the registration fee through SBI collect with the following procedure

- Go to SBI collect and choose Himachal Pradesh as state of Institution and type of Institution as educational institute
- Choose NIT Hamirpur from Name of the Institutions and Select payment category as WORKSHOP FDP STC CONFERENCE
- Generate the payment slip and attach it with the registration form available at the following link

https://forms.gle/yimgZ66o8YknbuKs6

*E-Certificate will be provided to those registered participants whose minimum attendance is 75% of the program

Eminent Speakers

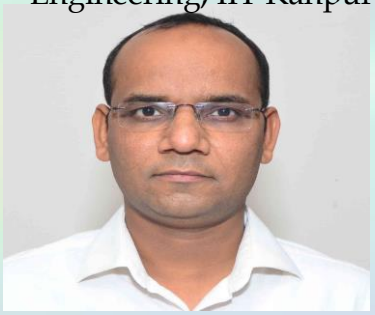
Dr. R. P. Chhabra
Department of Chemical Engineering, IIT Ropar
(Formerly Prof. IIT Kanpur)

Dr. Suman Chakarboraty
Department of Mechanical Engineering, IIT Kharagpur

Dr. Vivek V. Buwa
Department of Chemical Engineering, IIT Delhi

Dr. Naveen Tiwari
Department of Chemical Engineering, IIT Kanpur

Dr. Amit Kumar Dhiman
Department of Chemical Engineering, IIT Roorkee



Dr. Vimal Kumar
Department of Chemical Engineering IIT Roorkee

Dr. Dharitri Rath
Department of Chemical Engineering, IIT Jammu