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Prof. D. K. Singh,
Director, BIT Sindri Dhanbad

Patrons:

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Project Coordinator TEQIP-III
Prof. S. P. Singh,
HOD, Chemical Engineering Department

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Prof. U. Prasad, BIT Sindri
Prof. S. P. Singh, BIT Sindri
Prof. Vineet Kumar, IIT (ISM) Dhanbad
Dr. L.A. Kumaraswamidhas, IIT (ISM) Dhanbad
Dr. P.V. Suresh, NIT Warangal
Prof. P. Ghosh, IIT BHU

Organizing Secretaries:

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Mr. Arvind Singh

Organizing Committee:

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Mr. Ajay Oraon
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About Sindri and BIT Sindri

Sindri is an industrial township within the Dhanbad municipal limits of Jharkhand state. Sindri is well known because of a large Fertilizer factory (Fertilizer Corporation of India Limited - FCI). ACC Limited, Steel Authority of India Limited (SAIL), Projects & Development India Limited (PDIL), formerly Planning & Development Division of FCI and Coal Mines of the Bharat Coking Coal Limited, a subsidiary company of Coal India Limited.

BIT, Sindri was first started as College of Mechanical and Electrical Engineering in 1949. The institute grew and flourished rapidly during the early days under the dynamic leadership of Prof. D. L. Deshpande, the then Director, who is regarded as the architect of the institute. The institute is located at a distance of 28 kms from Dhanbad railway station linked by rail as well as road. It has a sprawling campus of about 450 acres of land near the eastern bank of river Damodar. The institute is fully residential for students as well as teaching and non-teaching staff.

The institute is controlled administratively by the Department of Higher, Technical Education & Skill Development, Govt. of Jharkhand. The Institute mainly aims at providing valuable human resources for the industry and society through excellence in technical education and research for sustainable development. The college offers B.Tech. courses in 10 disciplines of engineering namely Mechanical, Electrical, Metallurgy, Production, Chemical, Electronics & Communications, Civil, Mining, Computer Science, Information Technology besides many M.Tech. specializations. The college possesses modern amenities which include multimedia auditoriums, seminar rooms, class rooms, a state-of-the-art well-stocked rich E-library, well-equipped modern laboratories and campus wide network & State of Art Siemens lab which is regarded as Centre of Excellence to meet the industry demand. The wide range of activities on campus, like, good sports facilities, self motivated staffs & students for pursuit of excellence provides a pleasant and intellectually stimulating, proactive, conducive environment to feed their curiosities / interest and help them to prepare for the professional, academic and social life.

About Department

The Department of Chemical Engineering was established in the year 1956. The department offers four years B.Tech. degree course and M.Tech. with specialization in Chemical Plant Design in Engineering. The department has several well-equipped laboratories for undergraduate and postgraduate programs. The specialized laboratories include: Unit Operations Lab, Process Control Lab, Petroleum Refinery Engineering Lab, Plastic Technology Lab, Unit Process Engineering Lab, Chemical Engineering Thermodynamics Lab.

A Five Day Workshop on Flow and Process Simulation in Process Industries

(FAPSIPI - 2018)

29 Oct – 02 Nov 2018



Sponsored by
TEQIP-III

Coordinators

Dr. Sanjay Kumar
Dr. B. Sujan Kumar
Dr. Subhajit Patra

Department of Chemical Engineering,
BIT Sindri, Dhanbad - 828123,
Jharkhand, India.



Overview of Workshop

DETAILED:

Process simulation is used for the design, development, analysis, and optimization of technical processes such as: chemical plants, chemical processes, environmental systems, power stations, complex manufacturing operations, biological processes etc. Now a days the simulation studies have huge demand in many engineering projects since the preliminary feasibility analysis, conceptual and detailed design leads to so many savings in economy, time, raw materials as well as energy conservation until the process operation. Chemical process simulation involves the calculation of mass and energy balances coupled with phase equilibrium and with transport and chemical kinetics equations.

Aspen Plus is a Chemical Industry's Leading Process Simulation Software moreover, a process modeling tool for conceptual design, optimization and performance monitoring for the chemical, polymer, specialty chemical, metals and minerals, coal power industries etc. It can also be used to evaluate alternate plant configurations, modernizing, revamping existing plants, debottlenecking, assist in planning for production changes and assessing the compliance with environmental regulations.

ANSYS Fluent is the most powerful computational fluid dynamics (CFD) software. With this, one can optimize product's performance faster. Fluent includes well-validated physical modeling capabilities that deliver reliable and accurate results across the widest range of CFD and multiphysics applications.

IN SHORT:

This workshop is aimed to provide hands-on experience to the participants on the use of process and flow simulation software – ASPEN PLUS and Ansys CFD. Here, the participants will be benefited through Lecture Sessions along with Laboratory Exercises, as well as Seminar Discussions with most eminent speakers. Some of real life examples will be demonstrated as case studies.

PRE-REQUISITES:

- * Basic fundamentals of Heat and Mass Transfer.
- * Basic knowledge in Fluid Dynamics.
- * Enthusiasm to learn about new technologies
- * Participants are requested/expected to bring their laptop.

TOPICS COVERAGE:

Aspen Plus:

- * Introduction to Process & Flow Simulation and their Pre-requisites.
- * Modelling methodology & Numerical Schemes.
- * Bench marking, Analysis, Optimization
- * Validation

Ansys Fluent:

- * Introduction to Ansys Workbench
- * Problem definition in Ansys Workbench
- * Material Properties and Meshing
- * Simulation approach
- * Post-Processing and Analysis

Target Participants

This workshop is open to the all the Faculty of Chemical, Mechanical, Petroleum and Petrochemical Engineering from various Institutes, Industries, R&D Organizations and Research scholars, PG & UG Students. A certificate of participation will be given to each registered participant on conclusion of the workshop.

INVITED SPEAKERS

1. Prof. Vineet Kumar, Chemical Engineering Department, IIT (ISM) Dhanbad.
2. Dr. P. V Suresh, Chemical Engineering Department, NIT Warangal
3. Prof. Avanti Sahu, Chemical Engineering Department, NIT Rouekela.
4. Dr. V. Ram Sagar, Chemical Engineering Department, NIT Warangal.
5. Dr. Soubihik Kumar Bhaumik, Chemical Engineering Department, IIT (ISM) Dhanbad.
6. Prof. P. Ghosh, Mechanical Engineering, IIT BHU, Varanasi.

ACCOMMODATION

The participants may be provided accommodation in the institute alumni house and/or hostel depending on the availability on payment basis.

REGISTRATION

Registration fee for faculty members, researchers and industry professionals Rs. 2000/-

For students 750/-

Duly filled in registration form should be sent to coordinator's email ID.

TEQIP- III Sponsored

A five day workshop

on

Flow and Process Simulation in Process Industries

FAPSIPI – 2018

29 Oct – 02 Nov 2018

Department of Chemical Engineering, BIT Sindri, Dhanbad

Registration Form

Name (Mr./Ms./Mrs./Dr.):

Highest Qualification:

Gender (Male/Female):

Institute/Industries:

Designation:

Contact Address:

Mobile: +91- Mail Id:

Accommodation required**: YES / NO

Payment Details

Mode of Payment (Cash/D.D./Cheque/Online) :

Demand Draft No: Cheque no: Challan No.:

Date: Total amount (in INR):

(Demand draft should be drawn in favour of “Organizing Secretary FAPSIPI 2018”, payable at Bank of India, Sindri - 828120 Dhanbad).

Registration fee can also be deposited through following bank details:

Bank Account No.: 472020110000167 (Bank of India)

IFSC Code: BKID0004732

Amount (in words):

Declaration

I am interested in attending this workshop. All the information provided by me is correct.

.....
Signature of Applicant

** Accommodation will be arranged in the institute alumni house and/or hostel depending on the availability on payment basis.