



**Workshop Report  
on**



**“Utilities of Process Simulators in Chemical  
Engineering”**

17<sup>th</sup> & 18<sup>th</sup> July, 2018

**ORGANISED BY**



**Chemical Engineering Department  
S. N. Patel Institute of Technology & Research  
Centre Umrakh- Bardoli**

**Sponsored by:**

**Gujarat Council On Science & Technology  
(GUJCOST)**

**Report Prepared by:**

**Dr. Miral R. Thakker  
Prof. Darshan R. Sarang**

## **OBJECTIVE OF WORKSHOP**

To show the usage of process simulators in various subjects of chemical engineering. To spread the awareness of the use of ChemCAD & ASPEN PLUS simulator in Academics and Industries. To show how to study the steady and dynamic behavior of a process using simulator. To provide experience to the participants making the topic more clear.

## **ABOUT VIDYABHARTI TRUST & INSTITUTE**

Vidyabharti Trust is the name associated with education for more than three decades near Bardoli of Surat district and has now evolved as a symbol of quality education dedicated to nurture the talent and aspirations of the bright youth of our nation.

S. N. Patel Institute of Technology & Research Centre is a premier institution approved by the All India Council for Technical Education (AICTE), New Delhi and affiliated with Gujarat Technological University (GTU), Ahmedabad, Gujarat. It was foresight to get talented Engineers in the field of Mechanical, Civil, Electrical, Chemical, Electronics & Communication & Computer Science Engineering. Institute also offer post-graduation courses in the area of Construction Management (Civil), Signal Processing & Communication (E&C) and Production Engineering (Mechanical).

## **ABOUT CHEMICAL ENGINEERING DEPARTMENT**

Chemical Engineering Department was established in year 2014 with an aim to be global centre of excellence in technical education and innovative applications producing excellent professionals with integrity besides being useful to all the stake holders under the guidance of professional and experienced teaching staff.

The Department is also having state of art laboratory facilities (NABL accredited).

Department is having Indian Institute of Chemical Engineers (IIChE) Student Chapter since year 2014. Two hundred four (204) Student members and four (4) faculties are life members of IIChE.

## ORGANIZING COMMITTEE

### **Chief Patron:**

Shri. Manharbhai L. Patel (Managing Trustee)

### **Patron:**

Dr. Neeraj D. Sharma (Principal)

### **Coordinators:**

- 1) Dr. Miral R. Thakker (Head, Chemical Engg. Department)
- 2) Prof. Darshan R. Sarang (Asst. Prof., Chemical Engg. Department)

### **Committee members:**

- 1) Prof. Svapnil H. Kevat (Asst. Prof., Chemical Engg. Department)
- 2) Prof. Vishal U. Shah (Asst. Prof., Chemical Engg. Department)

## ADVISORY COMMITTEE

Dr. Sanjay R. Patel - Asst. Professor, Chemical Engg. Department, SVNIT, Surat.

Prof. Williams J. Koshy- Asst. Professor, Chemical Engg. Department, GEC-Bhuj.

Prof. Hemant M. Jariwala - Asst. Professor, Chemical Engg. Department, GEC-Valsad.

Prof. Ashish Parmar - Asst. Professor, Chemical Engg. Department, SCET, Surat.

Prof. Kevin V. Vadnagra- Asst. Professor, Chemical Engg. Department, FETR-Bardoli.

## WORKSHOP BROCHURE (PAGE-1)

### REGISTRATION FORM

S. N. Patel Institute of Technology & Research Centre, Umrakh-Bardoli, Surat  
Two Days Workshop  
on  
“Utilities of Process Simulators in Chemical Engineering”  
(17<sup>th</sup> & 18<sup>th</sup> July 2018)

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Educational qualification: \_\_\_\_\_

Organization: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Tel./Mobile No.: \_\_\_\_\_

Email: \_\_\_\_\_

Registration Fee: Paid herewith in the form of  
Cash/Cheque/DD Amount: \_\_\_\_\_

Cheque/ DD No.: \_\_\_\_\_

Date: \_\_\_\_\_

Name of the Bank: \_\_\_\_\_

Date: \_\_\_\_\_

Place: \_\_\_\_\_

Signature of  
Applicant

Signature of  
HOD

### Note:

- Cheque/DD should be in favor of “S. N. Patel Institute of Technology & Research Centre”
- Photocopies of registration form may be used. The Registration Form should be sent to the coordinators.

S. N. Patel Institute of Technology & Research Centre, Umrakh-Bardoli, Surat

### TECHNICAL ADVISORY COMMITTEE

- ⇒ Dr. Sanjay Patel, Asst. Prof., Chemical Engineering Department, SVNIT, Surat
- ⇒ Prof. Williams J. Koshy, Asst. Prof., Chemical Engg. Depart., GEC-Bhuj.
- ⇒ Prof. Hemant Jariwala, Asst. Prof., Chemical Engg. Depart., GEC-Valsad.
- ⇒ Prof. Ashish Parmar, Asst. Prof. Chemical Engg. Depart., SCET, Surat.
- ⇒ Prof. Kevin Vadnagra, Asst. Prof. Chemical Engg. Depart., FETR- Bardoli.

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(Principal)

#### Coordinators

Dr. Miral Thakker  
Prof. Darshan Sarang

#### Committee Members

Prof. Svapnil Kevat  
Prof. Vishal Shah

### ADDRESS FOR CORRESPONDENCE

Prof. Darshan Sarang, Asst. Prof., ChED  
SNPIT & RC, Umrakh-Bardoli, Surat  
Phone: 08905424105,  
Email: darshan.sarang@snpitrc.ac.in

Two Days Workshop  
on

Utilities of Process Simulators in  
Chemical Engineering  
(17<sup>th</sup> & 18<sup>th</sup> July 2018)

Sponsored By



### Coordinators

Dr. Miral R. Thakker  
Prof. Darshan R. Sarang



Organized by

Chemical Engineering Department  
S. N. Patel Institute of Technology  
& Research Centre,  
Umrakh-Bardoli, Surat

website : [www.snpitrc.ac.in](http://www.snpitrc.ac.in)

## **WORKSHOP BROCHURE (PAGE-2)**

### ABOUT THE INSTITUTE

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useful to all the stake holders under the guidance of professional & experienced teaching staff. The Department is having state of art laboratory facilities (NABL accredited)

### OBJECTIVES OF THE PROGRAMME

- To show the usage of simulators in various subjects of Chemical Engineering.
- To spread the awareness of the use of ChemCAD & ASPEN PLUS simulator in Academics and Industries.
- To show how to study the steady and dynamic behavior of a process using simulator.
- To provide experience to the participants making the topic more clear.

### FOCUS AREAS

- Process simulation: Basics of ChemCAD and ASPEN PLUS.
- Features of Aspen Plus Simulator.
- Simulation of Major Unit operations like – Separators, Heat Exchangers, Distillation columns using Simulator.
- Case Studies of some Process Manufacturing.

### FOR WHOM

The programme will provide excellent opportunities for

- Students/Teachers of engineering colleges and polytechnics.
- In service professionals / Engineers/ Researchers working in relevant field.

### REGISTRATION FEE DETAILS

The registration fees for participants are given below:

Participants	Amount (in Rs.)
Students	400/-
Academicians	500/-
Registration charges for I.S.T.E./IICHE Members	300/-

### RESOURCE PERSONS

Dr. Miral Thakker  
Prof. Darshan Sarang

### IMPORTANT DATES

- Last date for Application - 11/07/2018
- Confirmation of Seat - 13/07/2018

## INAUGURAL FUNCTION



PLAYING GTU SONG DURING INAUGURATION



CAMPUS DIRECTOR DR. AJAY SHAH LIGHTING LAMP DURING INAUGURATION

**DELIGATES ON DIAS**



- From left to right*
1. Dr. Miral R. Thakker
  2. Dr. Ajay V. Shah
  3. Prof. Williams J. Koshy
  4. Dr. Neeraj D. Sharma
  5. Dr. Piyush S. Jain

**FLORAL WELCOME OF DELIGATES**





DR. MIRAL THAKKER WELCOMING DIRECTOR DR. AJAY SHAH



DIRECTOR DR. AJAY SHAH WELCOMING PROF. WILLIAMS KOSHY



PROF. DARSHAN SARANG WELCOMING PRINCIPAL DR. NEERAJ SHARMA



PROF. VISHAL SHAL WELCOMING DR. PIYUSH JAIN



PROF. DARSHAN SARANG WELCOMING PROF. KEYUR SHAH



PROF. DARSHAN SARANG WELCOMING PROF. KAMAL RANA

## SCHEDULE DAY-1

TIME	17 <sup>th</sup> July 2018	
9:30 am-10:00 am	REGISTRATION	
10:00 am -10:30 am	High Tea	
10:30 am -11:00 am	Inauguration	
11.00 am -12.00 pm	Introduction to Process Modelling, Simulation and Optimization	Prof. Williams J. Koshy Assistant Professor, GEC-Bhuj
12.00 pm -1.00 pm	Introduction to CFD using COMSOL Multiphysics	Prof. Swapnil Kevat Assistant Professor, SNPIT&RC
1.00 pm - 2.00 pm	Lunch	
2.00 pm - 3.30 pm	Flow sheeting in ChemCAD, Process Design of distillation column & cost estimation in ChemCAD	Prof. Kevin Vадnagra Assistant Professor, FETR-Bardoli
3:30 pm – 3:45 pm	Tea	
3:45 pm - 4.45 pm	Case studies in ChemCAD	Prof. Darshan Sarang Assistant Professor, SNPIT&RC

## SPEAKERS (DAY-1)



DR. AJAY SHAH WELCOMING PRO. WILLIMAS KOSHY



PROF. DARSHAN SARANG WELCOMING PROF. KEVIN VADNAGRA

**LECTURE SESSION DAY-1**



PROF. WILLIAMS KOSHY DELIVERING LECTURE



PROF. SVAPNIL KEVAT DELIVERING LECTURE

**LUNCH TIME**



**FELICITATION DAY-1**



PROF. DARSHAN SARANG FELICITATING PROF. SVAPNIL KEVAT



DR. MIRAL THAKKER FELICITATING PROF. WILLIAMS KOSHY

**SCHEDULE DAY-2**



TIME	18 <sup>th</sup> July 2018	
10:00 am -10:30 am	<b>High Tea</b>	
10:30 am-11:30 am	Anatomy of Aspen Plus	Prof. Hemant Jariwala Assistant Professor, GEC-Valsad
11:30 am-1:00 am	Introduction to Aspen Hysys for Chemical Engineers	Prof. Ashish Parmar Assistant Professor, SCET- Surat
1.00 pm - 2.00 pm	<b>Lunch</b>	
2:00 pm-4:00 pm	Case studies in Hysys	Prof. Darshan Sarang Assistant Professor, SNPIT&RC
4:00 pm- 4:15 pm	<b>Tea</b>	
4:15 pm - 4:30 pm	<b>Valedictory</b>	

## SPEAKERS DAY-2



PROF. DARSHAN SARANG WELCOMING PROF. ASHISH DESAI



DR. MIRAL THAKKER WELCOMING PROF. HEMANT JARIWALA

**LECTURE SESSION (DAY-2)**



PROF. HEMANT JARIWALA & PROF. DARSHAN SARANG DELIVERING LECTURE



PROF. ASHISH PARMAR DELIVERING LECTURE



STUDENS ENJOYING SESSION

**FELICITATION DAY-2**



PROF. ROHINI SINGH FELICITATING PROF. ASHISH PARMAR



PROF. SVAPNIL KEVAT FELICITATING PROF. HEMANT JARIWALA



DR. NEERAJ SHARMA FELICITATING PROF. DARSHAN SARANG

## FEEDBACK OF STUDENTS

### **Ashka Chauhan**

Attending Workshop on topics like CHEMCAD, ASPEN PLUS and many others has been an interesting program. We have completely benefited by this. More and more seminars should be arranged like this to get known to software's like this which helps in future in our field.

### **Rajendra Patel**

Two days' workshop organized by GUJCOST has been such an interesting session for students who learned basic of simulators, Introduction to Modelling, Simulation & Optimization of Aspen Plus and much more. The skill of tutors have enhanced the students to approach for more and more questions and made it a remarkable one.

### **Parth Patel**

The 2 days of workshop held by GUJCOST which was very nice I think we need to improve our knowledge in basic software's like ChemCAD. So, if possible then arrange STTP (Short Term Training Programme). I found most interesting & useful thing that is ChemCAD and Aspen Plus.

### **Krishna Savani**

The Class of Chemical Engineering achieved maximum benefit from the experts who had much more experience in the world of simulators. Student demanded the organizers to organize the same workshops again for some other software's & teach us further for other topics to explore.

## ACKNOWLEDGEMENT

We would like to thank **GUJCOST** and **DST** for providing financial assistance to the institute for conducting this two days' workshop. We are also thankful to **Vidyabharti Trust and S. N. Patel Institute of Technology & Research Centre, Umrakh- Bardoli** for providing platform to arrange such an informative workshop.

## PRESS COVERAGE

**બારડોલીની S.N.P.I.T R.C. ઉમરાખમાં GUJCOST દ્વારા કેમિકલ શાખામાં બેદિવસના વર્કશોપનું આયોજન**

બારડોલી : વિદ્યાભારતી ટ્રસ્ટ ઠેકાણ કાર્યરત સીતારામભાઈ નારાયણ પટેલ ઇન્સ્ટિટ્યૂટ ઓફ ટેકનોલોજી અને રિસર્ચ સેન્ટર ઉમરાખના કેમિકલ એન્જિનિયરિંગ વિભાગમાં તા: 17-18 જુલાઈ 2018 ના રોજ વર્કશોપનું આયોજન કરવામાં આવ્યું છે. આ વર્કશોપ GUJARAT COUNCIL OF SCIENCE & TECHNOLOGY (GUJCOST) દ્વારા સ્પોન્સર થયેલ છે. વર્કશોપનો વિષય UTILITIES OF PROCESS SIMULATORS IN CHEMICAL ENGINEERING છે. ગુજરાતની પ્રતિષ્ઠિત સંસ્થામાંથી કેમિકલ એન્જિનિયરિંગ શાખાના પ્રોફેસર ઉપસ્થિત રહી વિદ્યાર્થી તેમજ પ્રોફેસરને માર્ગદર્શન આપશે. આ વર્કશોપમાં ગુજરાતના કેમિકલ શાખાના ફેકલ્ટી તેમજ વિદ્યાર્થીઓ ભાગ લઈ શકશે.

4th JULY, 2018 GUJARAT GUARDIAN NEWS PAPER, BARDOLI EDITION

**ઉમરાખમાં GUJCOST અને DST દ્વારા કેમિકલ એન્જિનિયરિંગ ડિપાર્ટમેન્ટ દ્વારા વર્કશોપનું આયોજન**

**વર્કશોપમાં દુપ વિદ્યાર્થીઓએ કેમિકલ એન્જિનિયરિંગના અલગ અલગ વિષયના ૪ તજજ્ઞોના જ્ઞાન અને કૌશલ્યનો લાભ લીધો હતો**



બારડોલી: એસ.એન.પટેલ ઇન્સ્ટિટ્યૂટ ઓફ ટેકનોલોજી એન્ડ રીસર્ચ સેન્ટર ઉમરાખ ખાતે તારીખ ૧૭-૧૮ જુલાઈ ૨૦૧૮ દરમિયાન GUJCOST અને DST દ્વારા પ્રાયોજિત અને કેમિકલ એન્જિનિયરિંગ ડિપાર્ટમેન્ટ દ્વારા Utilities of Process Simulators Hand on Practice દ્વારા અભિદર્શન કરવામાં આવ્યું હતું. વર્કશોપમાં દુપ વિદ્યાર્થીઓએ કેમિકલ એન્જિનિયરિંગના અલગ અલગ વિષયના ૪ તજજ્ઞોના જ્ઞાન અને કૌશલ્યનો લાભ લીધો હતો. વર્કશોપના સફળ આયોજન, Participants ના હકારાત્મક પ્રતિસાદ બદલ વિદ્યાભારતી ટ્રસ્ટ તથા એસ એન

પટેલ ઇન્સ્ટિટ્યૂટ ઓફ ટેકનોલોજી એન્ડ રીસર્ચ સેન્ટરે કેમિકલ એન્જિનિયરિંગ ડિપાર્ટમેન્ટને હાર્દિક શુભેચ્છાઓ પાઠવી આભાર પાઠવેલ છે. આ ઉપરાંત સેમેસ્ટર ૮ ના ૯૮ ટકા પરિણામ બાદ સોમવારે પ્રદર્શિત થયેલ સેમેસ્ટર ૮ માં પણ કેમિકલ એન્જિનિયરિંગ ડિપાર્ટમેન્ટના વિદ્યાર્થીઓએ ૯૪.૩ ટકા પરિણામ મેળવી સમગ્ર બારડોલી પ્રદેશમાં સંસ્થાને ગૌરવ પ્રદાન કર્યું છે.

25th JULY, 2018 GUJARAT MITRA NEWS PAPER, BARDOLI EDITION