

**Sarvajanik Education Society**  
**Sarvajanik College of Engineering & Technology**



**Report**

**One Week Workshop**

**on**

**“The First Course in Aspen Plus & Aspen HYSYS”**

**13-17<sup>th</sup> December, 2016**

**Organized by**  
**Chemical Engineering Department,**  
**Sarvajanik College of Engineering & Technology, Surat.**

**Coordinated by**

**Prof. Ashish Parmar**

**Prof. Anand Upadhyay**

Chemical Engineering Department zealously strive to provide students, exposure to industrial environment by way of Industrial training, expert lectures, plant visit, technical workshops and also groom them for being extraordinary individuals with positive attitude and great personality.

### **About Course**

Understanding the dynamic behavior of chemical processes/operations is important from both design and process control perspectives. Simulation is a cost effective method for design and understanding the behavior of process/operations when compared to the study through experiments. Process simulation can be used for visualizing plant processes, perform heat and mass balances of process flow sheet, design of new plants, suggesting modifications and expansions of existing plants (retrofitting), helping engineers to develop better understandings of how plant operates, reducing costs and increase profits, predicting operating efficiencies and anticipating problems, troubleshooting process and control problems, assisting operations in planning for production changes and disruptions, training operators etc.

The primary aim of workshop is to provide know how of ASPEN Plus and ASPEN HYSYS along with necessary insight into required background for simulation of chemical processes and operations. The theoretical sessions has covered the fundamentals of related topics such as Thermodynamic models and their applications in property predictions of various compounds, Flash, Distillation, Heat Exchanger, Reactors, Pumps and Compressors. The laboratory sessions covered to deal with problems encountered in chemical engineering practice using ASPEN Plus and ASPEN HYSYS.

Out of 28 registered participants, 19 have successfully completed the workshop by fulfilling the criteria of 75% attendance, submission of assignment and online test. We have used moodle platform for online test and assignment submissions for evaluation of participants' knowledge gain during the workshop.

### **ACKNOWLEDGEMENT:**

As coordinators of the workshop, we acknowledge the support provided by every single faculty & staff members of the department to make the event successful. We are also thankful to Head of the Department Dr. Rakhi Mehta, Honorable Principal madam Dr. Vaishali Mungurwadi and SES management for extending all the supports required. We especially convey the gratitude towards the subject experts Prof. Vaishali Umarigar and Prof. Jignesh Joshi for sparing their precious services, time and sharing expertise with participants.

Last, We would like to thank all the participants without whom the workshop could not have been executed.

Ashish Parmar

Anand Upadhyay

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Course Schedule			
DATE	TIME	TOPIC	Faculty
13-12-2016	9:30 to 11:30	Introduction to ASPEN HYSYS : Flowsheeting	Anand Upadhyay
	1:00 to 3:00	Introduction to ASPEN Plus : Flowsheeting	Ashish Parmar
14-12-2016	9:30 to 11:30	Selection of Property Model: Equation of state	Jignesh Joshi
	1:00 to 3:00	Simulation of flash drum	Ashish Parmar / Anand Upadhyay
15-12-2016	9:30 to 11:30	Heat Exchanger	Ashish Parmar / Anand Upadhyay
	1:00 to 3:00	Pump and Compressor	Ashish Parmar / Anand Upadhyay
16-12-2016	9:30 to 11:30	Intorductio to Distillation	Jignesh joshi
	1:00 to 3:00	Simulation of Distillation column	Ashish Parmar / Anand Upadhyay
17-12-2016	9:30 to 11:30	Introduction to Reactors	Vaishali Umrigar
	1:00 to 3:00	Simulation of Reactors	Ashish Parmar / Anand Upadhyay