ASPEN PLUS® SIMULATION SOFTWARE - A BASIC COURSE FOR BEGINNERS

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PRE-REQUISITES : People having Chemical Engineering background who have passed the following courses: Mass Transfer, Heat Trans fer, Chemical Reaction Engineering, Fluid Mechanics, Chemical Engineering Thermodynamics, and Mechanical Operations.

INTENDED AUDIENCE : Final year UG chemical engineering students and PG students having chemical engineering background. People from chemical process industries may also get benefitted with this course.

INDUSTRY SUPPORT: All chemical process industries such as Reliance petrochem, Shell, IOCL,etc.

COURSE OUTLINE :

Aspen Plus is a process modeling tool used for process monitoring, optimization and conceptual design, especially by chemical process industries. This is a simple course on Aspen Plus Simulation engine that will teach one how to model the most common unit operations of a chemical plant. Basic unit operations such as Pump, Reactor, Valve, Heater, Distillation Column etc. will be demonstrated which would be helpful for students, teachers, engineers and researchers in the area of R&D and Plant Design/ Operation. The course is didactic, with a lot of applied theory and case studies. At the end of the course one will be able to setup a simulation, run it, get design parameters, optimize and get results. This is highly recommended for those who are willing to take a career in simulation/modeling via software.

ABOUT INSTRUCTOR :

Prof. Prabirkumar Saha received his Bachelors of Engineering degree in Chemical Engineering from Jadavpur University, India in 1992 and his Masters of Technology and Ph. D. degrees in Chemical Engineering from the Indian Institute of Technology Madras, in 1994 and 1998, respectively. His research interest covers process control and liquid membrane based separation process. Prof. Saha is a recipient of Fulbright-Nehru Award for International Education Administrators. He is a Senior Life Member of American Institute of Chemical Engineers.

COURSE PLAN :

Week 1: Basic Process Modelling

Week 2: Basic Process Modelling

Week 3: Basic Process Modelling

Week 4: Process and property analysis

Week 5: Process and property analysis

Week 6: Process and property analysis

Week 7: Case studies

Week 8: Case studies

Week 9: Case studies

Week 10: Case studies

Week 11: Case studies

Week 12: Case studies