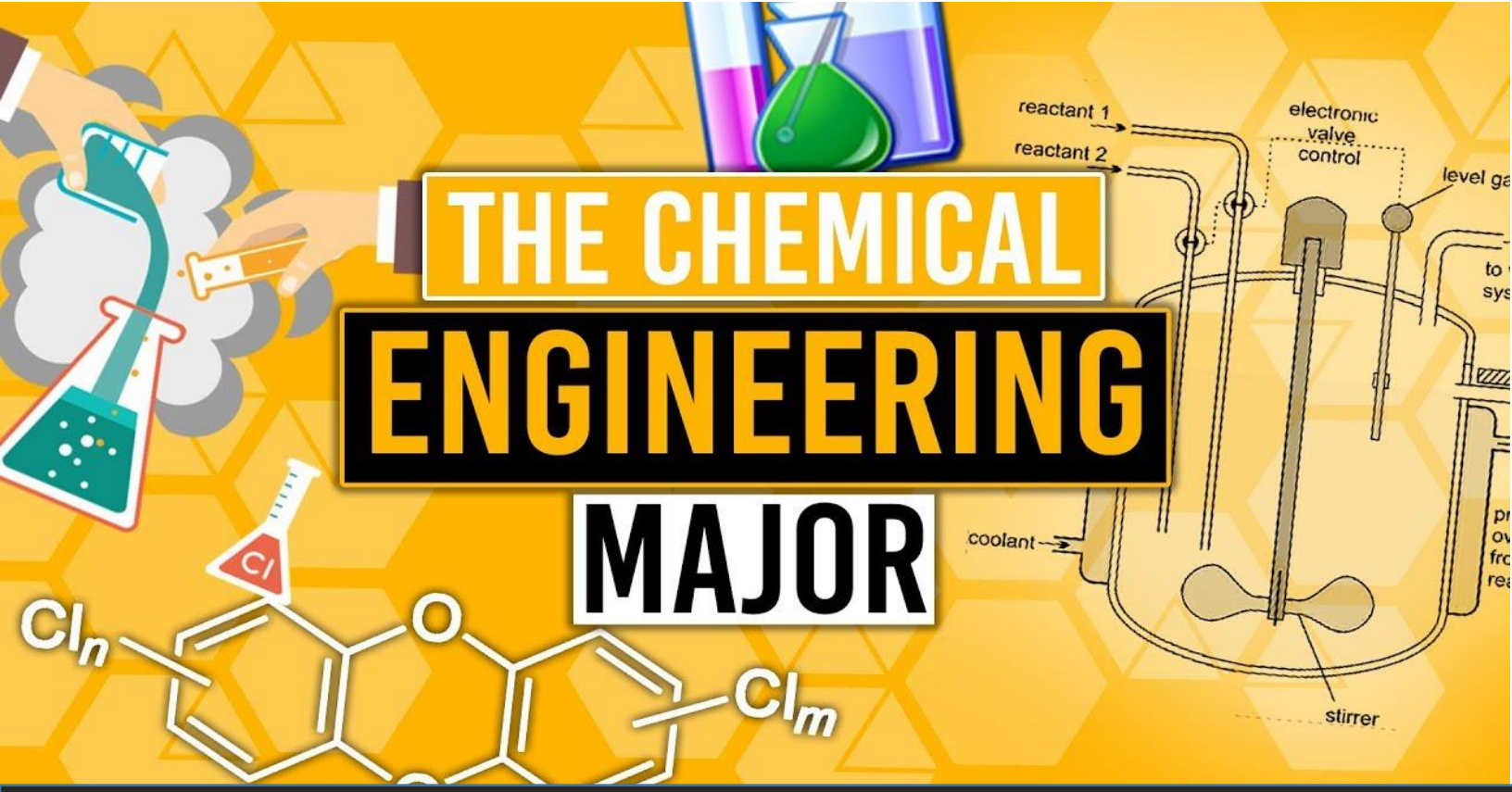

Fundamental of Petrochemicals Plant Economics and Forecasting

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Training & Consultancy

Fundamentals of Petrochemicals Plant Economics and Forecasting

Introduction:

This two part seminar program was designed to serve as a guide to understanding the petrochemical industry.

Part one of the seminar program focuses on one of the core building blocks of the petrochemical industry; ethylene and its derivatives. Sectors covered include;

1. Ethylene Plants,
2. Ethyl Benzene / Styrene Plants,
3. Ethylene Oxide / Glycol Plants,
4. Vinyl Chloride Plants,
5. Ethanolamine Plants and
6. Other Ethylene Derivatives

Part two of the seminar program focus on a second core building block of the Petrochemical industry; aromatics and its derivatives. Sectors covered include

7. Catalytic Reformers,

8. BTX Separation Plants,
9. Xylene Separation Plants and
10. Aromatics Derivatives

Who Should Attend?

People who are making decisions regarding operation, design, and economics of petrochemical plants;

- Plant Managers,
- Process Support Engineers,
- Operations Engineers
- Design Engineers,
- Senior Plant Supervisors.
- Ideal for veterans and those with only a few years of experience who want to review or broaden their understanding in Petrochemical Operations.
- Other professionals who desire a better understanding of subject matter

Objectives:

This seminar's goals are to provide an understanding of the two key building blocks of the petrochemical industry. This seminar would be beneficial to those directly or indirectly involved in the petrochemical industry. To those with experience in the petrochemical industry, this seminar can reinforce their practical experience and broaden their data base. To those new in the petrochemical industry this seminar can Serve as a platform to build their data base of experience.

Course Outline:

Introduction

- Overview of the Petrochemical Industry
- Chemistry of the Petrochemical Industry
- Fundamentals of Distillation
- Optimize Distillation Column Design for Improved Reliability in Operation and Maintenance
- Catalyst Evaluation Techniques

Ethylene Plants

- Overview of Ethylene Plants
- Process Variables
- Ethylene Furnace Review
- Ethylene Furnace Trouble Shooting
- Ethylene Distillation Review

Ethylene Plants Continued

- Designing Distillation Columns for Fouling Service
- Acetylene Reactor Catalyst Review
- Ethylene Plant Economics and Optimization
- Flare Safety Review

Ethyl Benzene / Styrene Plants

- Overview of Ethyl Benzene Plant
- Process Variables
- Overview of Styrene Plants
- Process Variables
- Catalyst Review
- Designing Columns for EB / Styrene Plants

EO / EG Plants

- Overview of Ethylene Oxide Plant
- Overview of Ethylene Glycol Plant
- Process Variables
- Designing Columns for Vacuum Service

VCM Plants

- Overview of Vinyl Chloride Plant
- Process Variables
- Design Distillation Columns for VC Service
- Environmental Concerns

Ethanolamine Plants

- Overview of Ethanolamine Plants
- Process Variables
- Design distillation columns for Ethanolamine Plants
- Design Guidelines for improved products and recoveries

Catalytic Reformer Plants

- Overview of Catalytic Reformer Plants
- Process Variables
- Hydro De-Sulphurization (HDS) units
- Current Advancements in Catalyst
- Designing columns for Catalytic Reformers

BTX Separation Plants

- Overview of BTX Separation
- Liquid / Liquid Extraction versus Extractive Distillation
- Process Variables
- 2nd Stage Gasoline Hydro Treater Units (GHU)
- Designing columns for BTX Separation Plants
- Designing Extractive Distillation Columns
- Benzene and Toluene Derivative Overview

Xylene Separation Plants

- Overview of Xylene Separation
- Crystallization versus Adsorption
- Process Variables
- Designing columns for Xylene Separation Plants

• Xylene Derivative Overview