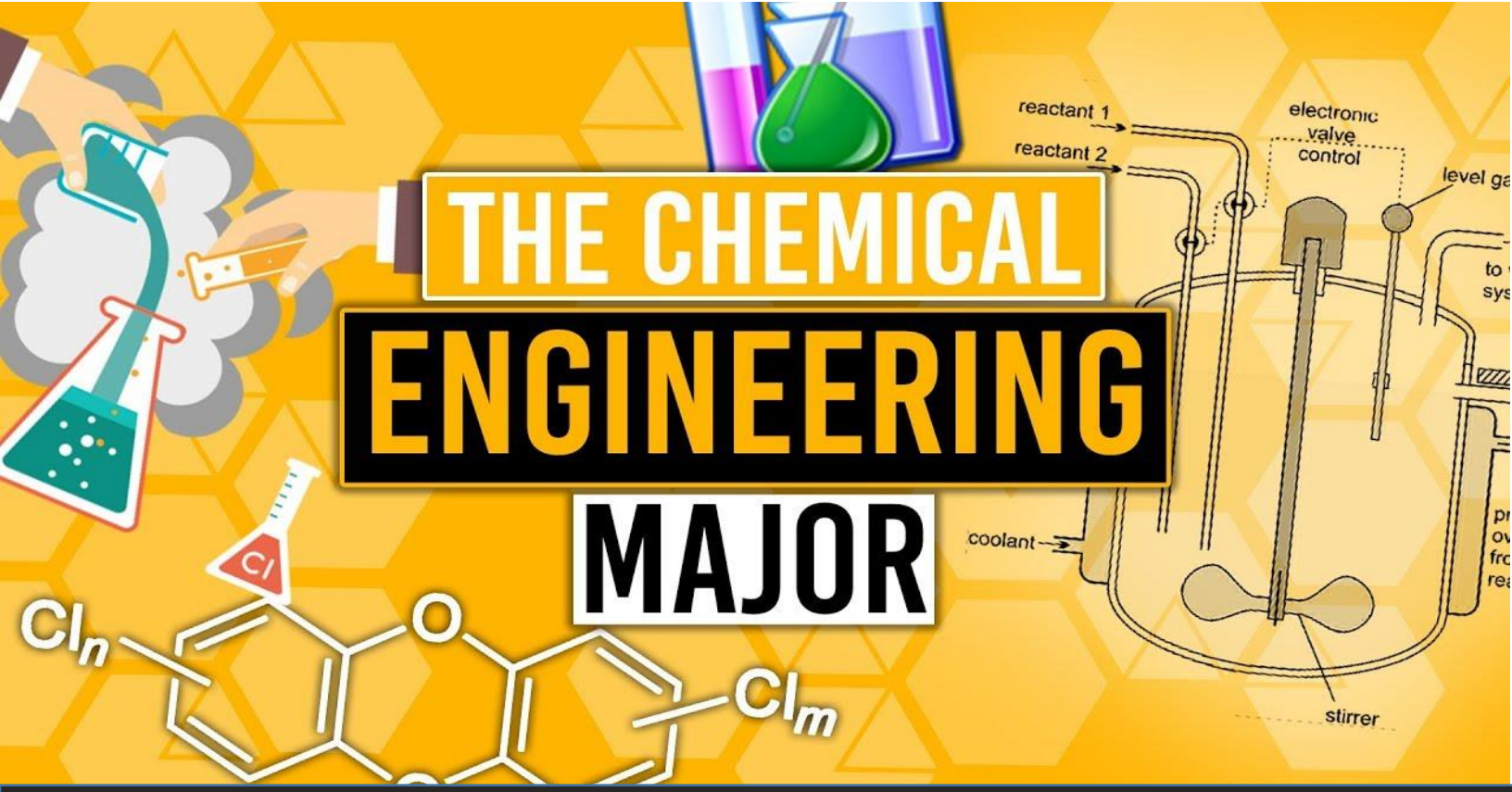

Process Reactor Operation
Troubleshooting Start-up and Shutdown

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Training & Consultancy

Process Reactor Operation Troubleshooting Start-up and Shutdown

Course Description:

The reactors play a capital role in many factory process operations. Basically a reaction is an apparatus or structure in which fissile material can be made to undergo a controlled, self-sustaining nuclear reaction with the consequent release of energy. This course focuses on the essential knowledge for process plants. Specific areas that will be covered in the course are, the basic parts of a reactor, reactor operation, reactor types, auxiliary equipment combined with reactors, and the operator's function in reactor operations.

Who Should Attend?

- Production engineers
- Process engineers
- Technicians
- Senior operators
- Section heads

Course Objectives:

- Describe the chemical reactions, processes of the variables and temperature of the process reactors.
- Analyse the reaction mechanism involved in process reactors
- Learn knowledge on the process control unit , emergency cases troubleshooting catalyst deactivation
- Observe the gas oil including their start-up guidelines and emergency procedure
- Familiarize with the safety regulations and explain catalytic reformer unit including its chemical reactions
- Apply start-up and shutdown procedures with depth understanding of the catalyst regeneration procedure

Course Schedule:

Day 1

- Process, basis of design and chemical reactions
- Process variables process
- Temperature of process reactors
- Gas and oil : start-up guidelines and emergency procedures

Day 2

- Reactor principles
- Design and general operation
- Charging reactors and effects
- Temperature and pressure
- Components of a reactor and auxiliary equipment
- Stirred Tank Reactors and Batch Stirred Tank reactors
- General operations

Day 3

- Process reactors: reaction mechanism
- Operating variables and pressure
- Temperature
- Dehydrogenation process
- Operation and troubleshooting of process reactors (process variables, Hydrogen Ratio, R/G and LHSV)

Day 4

- Process control, deactivation and procedures: process control unit
- Emergency cases
- Troubleshooting Catalysts Deactivation
- Start-up and shut down procedures
- Hydro Cracking Unit (chemical reaction and reaction mechanism)

Day 5

- Features & Functions, Catalysts, Troubleshooting
- Process Variables
- Hydrogen/Hydrocarbon Ration
- Feed Preparation
- Catalysts Deactivation/Positioning
- Emergency Cases
- Troubleshooting and Run-away Temperature