

## Training & Certification Program in Process Design Engineering

### Overview:

- Overview of Industry and role of a Process Engineer in various fields.
- Basic design requirements based on the types of plants / projects.
- Overview of Basic Engineering Package.
- Introduction to PFD, P&ID and PDS of equipments.
- Relevant Codes and Standards used in industry.
- Development of PFD: Process & Utility.
- Mass and Energy balance - Design Basis, Sample Calculations and Utility Sizing.
- Interlocks, Control Philosophy, Valves Selection and sizing, Safety valves sizing.
- Development of P&ID: Process and Utility, Line Sizing & Pressure Drop Calculations.
- Pump Selection and sizing.
- Heat Exchanger Design (Thermal Design).
- Distillation Column Design.
- Available Software used in industry and their applications.
- Personality Development & Mock Interviews preparation

# Module Details

## Introduction to Process Engineering

- Introduction
- Overview of an Engineering Organization
- Role of a Process Engineer
- Project Documentation

## Basic Engineering Package:

- Overview of Basic Engineering Package.
- Basic design requirements based on the types of plants / projects.
- Introduction to PFD, P&ID and PDS, Equipment list, line list
- Development of PFD, PFD specification,
- Development of P&ID,
- International Codes & Standards
- Fundamentals of Material Balance
- Fundamentals of Energy Balance
- Process Block Diagram
- Equipment Sizing

## Process Equipments Detail Design:

- Heat Exchangers
- Pumps
- Pressure Vessel
- Separation Column
- Control Valve,
- Reactor Technology
- Line Sizing
- Hydraulic calculations

### **Process Simulation:**

- Butane, LPC Column simulation
- Light Nephtha, CO2 Absorber
- Striper Design

### **Application Procedure**

Submit Dully filled attached Admission Query Form, along with your updated CV at our office or mail it to "[info@smartbrains.in](mailto:info@smartbrains.in)".

Admission would be given only to shortlisted candidates. Please confirm your admission on allotted dates.

### **Documents Required**

- 2 PP Size Photograph.
- 1Photo ID Proof, 1 Address Proof.
- 1 Photo stat of qualifying exam certificate
- 1 hard copy of your CV.

**For further Information and Admissions Contact:**

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