

Process Plant Optimization, Revamping and Debottlenecking Course

Venue Information

Venue: London UK

Place:

Start Date: 2026-02-03

End Date: 2026-02-07

Course Details

Net Fee: £4750.00

Duration: 1 Week

Category ID: OAGTC

Course Code: OAGTC-19

Syllabus

Course Syllabus

Introduction :

This intensive five-day Process Plant Optimization, Revamping and Debottlenecking training course is designed to equip engineers, plant managers, and process operators with the critical skills and knowledge required to enhance the efficiency, reliability, and profitability of their process plants. Through a blend of theoretical insights and practical applications, participants will learn to apply systematic techniques for optimization, revamp existing facilities to meet evolving operational requirements, and identify and eliminate bottlenecks that impede plant performance. Our comprehensive curriculum is crafted to address the complexities of modern process plants and prepare participants to meet the challenges of an ever-changing industrial landscape.

plant operations, enhance reliability, and increase profitability.

- **Identify and Address Plant Inefficiencies:** Recognize common misconceptions, scope for optimization, and employ various tools to analyze and improve plant operations.
- **Integrate Process Simulation:** Leverage process simulation tools in operational analysis to optimize design and improve decision-making.
- **Develop Debottlenecking Strategies:** Formulate cost-effective strategies and action plans to eliminate bottlenecks and implement capacity creep solutions.
- **Enhance Process Plant Reliability:** Implement techniques for root cause failure analysis, fault trees, and optimize materials inventory and turnaround planning.
- **Understand Management Systems:** Appreciate the role of management and enterprise information systems in optimizing plant operations and risk management.
- **Optimize Offsites Operations:** Address the optimization of offsites operations, including design, storage, and inventory management.
- **Revamping Strategies:** Analyze various strategies for plant revamping, understanding the role of R&D in product development and capacity enhancement.
- **Evaluate Key Operational Parameters:** Discuss and analyze maintenance, energy, utilities, environmental, safety, economic, and project management aspects in process plants.

Course Outlines :

Day 1: Introduction to Process Plant Optimization

- Overview of process plant optimization, revamping, and debottlenecking
- Understanding the scope and tools for optimization
- Introduction to process simulation and its role in operational analysis

Day 2: Systematic Techniques and Debottlenecking

- Applying systematic techniques for plant optimization
- Identifying bottlenecks and formulating debottlenecking strategies
- Case studies on successful plant optimizations

Day 3: Reliability, Management Systems, and Risk Management

- Techniques for enhancing process plant reliability
- The importance of management information systems
- Introduction to risk management in process plant operations

Day 4: Offsites Operations and Utilities Management

- Optimizing offsites operations, design, and inventory management
- Utilities management, rehabilitation mechanisms, and strategies
- Workshop on applying learned concepts to a project

Day 5: Revamping Strategies and Comprehensive Analysis

- Discussion on revamping strategies and R&D's role in capacity enhancement
- Analyzing maintenance, energy, utilities, environmental, and safety parameters
- Wrap-up session: Project presentations, feedback, and course evaluation