

Comprehensive Process Plant Optimisation and Energy Conservation

Duration: 5 Days

Language: en

Course Code: IND14 - 110

Objective

Upon completion of this course, participants will be able to:

- Understand key elements of process plant optimisation and energy conservation.
- Enhance contributions to sustainable plant profitability.
- Identify and implement energy-saving opportunities.
- Equip participants with tools for technical and economic evaluations.
- Improve plant reliability and reduce operational risks.

Audience

This course is intended for:

- Process plant technical professionals: engineers, technicians, and operators
- Plant engineers, supervisors, and maintenance personnel
- Project engineers and consulting engineers
- Personnel involved in improving process plant profitability and energy efficiency

Training Methodology

The course uses a workshop format, combining formal lectures, interactive examples, and practical sessions. Emphasis is placed on real-world applications and problem-solving, allowing participants to engage in discussions and share experiences. Comprehensive course materials are provided to support learning and future reference.

Summary

This comprehensive course focuses on optimising process plant operations to enhance efficiency, reliability, and profitability while conserving energy. Participants will gain practical

skills and knowledge to implement optimisation techniques and advanced technologies, ensuring sustainable plant performance and energy management.

Course Content & Outline

Section 1: Overview of Optimisation Technologies

- Introduction to Optimisation Technologies for Process Plants
- Elements of Optimisation Procedures
- Constraints in Optimisation: Production, Operation, Economy, and Environment
- Correlation between Process Optimisation and Control
- Practical Workshops and Solutions

Section 2: Reliability, Availability, and Effectiveness

- Relationship between Plant Reliability and Availability
- Optimisation of Plant Reliability and Maintenance
- Effectiveness Analysis of Equipment
- Workshops on Plant Effectiveness Solutions

Section 3: Best Practices for Energy Consumption

- Strategies for Reducing Energy Consumption
- Global Standards and Benchmarking Guidelines
- Energy Management in Process Plants
- Workshops on Heat Production and Steam Optimisation

Section 4: Maintenance Management System

- Optimisation of Piping Systems, Pumps, Compressors, and Fans
- Predictive Maintenance and Spare Parts Management
- Workshops on Repair and Alteration Programs

Section5: Minimisation of Equipment Failure

- Risk-Based Inspection (RBI) and Fitness For Service (FFS) Analysis
- Planned Equipment Replacement and Plant Economy Optimisation
- Course Summary and Review

Certificate Description

Upon successful completion of this training course, delegates will be awarded a Holistique Training Certificate of Completion. For those who attend and complete the online training course, a Holistique Training e-Certificate will be provided.

Holistique Training Certificates are accredited by the British Assessment Council (BAC) and The CPD Certification Service (CPD), and are certified under ISO 9001, ISO 21001, and ISO 29993 standards.

CPD credits for this course are granted by our Certificates and will be reflected on the Holistique Training Certificate of Completion. In accordance with the standards of The CPD Certification Service, one CPD credit is awarded per hour of course attendance. A maximum of 50 CPD credits can be claimed for any single course we currently offer.

Categories

Energy and Oil & Gas, Manufacturing

Tags

management, energy, Optimisation, Plant

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