

€ TRAINING

Conference on Fluid Flow Control in the
Process Industry

13 - 17 October 2024
Istanbul (Turkey)





Conference on Fluid Flow Control in the Process Industry

REF: C599 DATE: 13 - 17 October 2024 Venue: Istanbul (Turkey) - Fee: 5850 Euro

Introduction:

This conference explores the essential principles and advanced techniques for controlling fluid flow in the process industry. It empowers participants to design, manage, and optimize fluid flow systems, ensuring efficient and safe operations in industrial environments.

Conference Objectives:

By the end of this conference, participants will be able to:

- Understand the fundamental principles of fluid flow in industrial processes.
- Apply techniques for controlling fluid flow efficiently.
- Design systems that optimize fluid flow for improved operational performance.
- Manage and troubleshoot common fluid flow issues in process industries.
- Ensure safety and compliance in fluid flow operations.

Targeted Audience:

- Process Engineers.
- Mechanical Engineers.
- Operations Managers.
- Maintenance Professionals.
- Industrial Safety Specialists.

Conference Outline:

Unit 1:

Principles of Fluid Flow:

- Understanding fluid dynamics and flow types laminar vs. turbulent.
- The role of pressure, velocity, and flow rate in fluid flow control.
- Analyzing fluid properties and their impact on flow behavior.

- Basic equations governing fluid flow Bernoulli's equation, Darcy-Weisbach.
- Common fluid flow challenges in industrial applications.

Unit 2:

Flow Control Devices and Valves:

- Overview of control valves, flow meters, and regulators.
- Selecting the right valve for specific process applications.
- Principles of valve operation and control strategies.
- Maintenance and troubleshooting of flow control devices.
- The role of automation in fluid flow control systems.

Unit 3:

Designing Efficient Fluid Flow Systems:

- Key considerations in designing fluid flow systems for industrial processes.
- Optimizing piping layout to reduce pressure losses and improve flow.
- Balancing system capacity and flow rate for energy efficiency.
- Case study: Design optimization in fluid flow systems.
- Preventing and mitigating flow-related operational issues.

Unit 4:

Troubleshooting and Maintenance of Fluid Flow Systems:

- Common issues in fluid flow systems and their causes.
- Techniques for diagnosing flow inefficiencies and irregularities.
- Preventative maintenance strategies for flow control equipment.
- Leveraging technology for real-time monitoring and maintenance.

Unit 5:

Safety and Compliance in Fluid Flow Operations:



- Understanding safety regulations in fluid handling and flow control.
- Implementing safety protocols to avoid accidents and leaks.
- Compliance with environmental standards in fluid system operations.