

# PROCESS DYNAMICS AND ADVANCED MODEL-BASED CONTROL TRAINING

- Loop Tuning and Advanced Regulatory Control
- Introduction to Multivariable Model Predictive Control

Experience our industry-leading expertise in process control









### OVERVIEW

This training provides a comprehensive blend of theory and hands-on practice, using virtual simulators and real industry cases to delve into process control regulation.

This training provides you with the opportunity to enhance your technical skills, tackle realworld challenges, and apply your knowledge directly to your professional environment.

Join us to advance your expertise and master the tools needed for effective problem-solving in process control.

More details on the second page

## DATES

From September 16 to September 18, 2024

+MPC Primer training on September 19, 2024

## LOCATION

Enero Solutions - 420 rue Guy, Montreal

## INSCRIPTION

Contact: sales@enerosolutions.com

Cost: \$2,640

Cost with MPC Primer training: \$3,340 Cost for MPC Primer training only: \$900

## INTENDED AUDIENCE

Anyone looking to expand their expertise in troubleshooting and interventions related to process control problems.

# Your ally for process optimization Your efficiency expertise partners

## PROGRAM:

#### DAY 1:

- Introduction to Process Variability and Control
- Introduction to Process Regulation
- Understanding of Different Process Dynamics

Exercises on a Virtual Process Simulator\* to Analyze **Process Variability** 

#### DAY 2:

- Continued Understanding of Process Dynamics
- Overview of PID Loop Tuning, Optimal Variability Reduction, and Lambda Tuning Method (IMC)
- Introduction to Control Loop Performance and **Strategies**

Exercises on a Virtual Process Simulator\* to Tune Various PID Loops

#### **DAY 3:**

- Control Advanced Strategies (Cascade. Feedforward, Adaptive Control, etc.)
- · Process Troubleshooting, Variability Analysis, and Problem-Solving

Exercises on a Virtual Process Simulator\* to Implement Advanced Strategies

## DAY 4 (optional): Multivariable Model Predictive Control (MPC) Primer

- Overview of MPC technology, structure and functionality
- Explanation of MPC implementation, tuning and performance enhancements

Examples of using small, fast MPC's embedded in the DCS to produce great ROI

\*Our simulator is specially designed to provide you with a virtual environment featuring processes, allowing you to visualize and practice the various concepts covered.

## INSTRUCTORS:



**VAL PARISIEN** Senior Technical Lead. Process Performance Enero Solutions

# 8 YRS OF EXPERIENCE

in advanced process control and optimization

#### Expertise in:

· Energy process simulation, advanced control, and process optimization (thermal power plant and steam network, combustion equipment, industrial processes, pipeline and station, pumping programming)



JAMES BEALL Principal Advanced Controls Consultant Enero Solutions

# **42 YRS** OF EXPERIENCE

in advanced process control and optimization Expertise in:

• Automation and Process Control Engineering, Instrumentation and Control Valve Optimization, Advanced Regulatory Multivariable Control, Control Project Implementation and Consulting, Production Energy Efficiency Improvements, Advanced Loop Tuning and **Troubleshooting** 

