



ENGINEERING AND TECHNICAL TRAINING

Advanced Process Automation

5 day course

Classroom, online or in-house

Course overview

Beyond single loop control, this course covers the automation layers that determine how a modern plant actually runs. Delegates work through cascade, ratio and feedforward strategies, multivariable and model predictive control, advanced regulatory control, batch control and sequencing, and the integration between the control system and the plant information layer. Alarm management receives substantial attention, because alarm flooding remains one of the most common contributors to operator error during upsets. The course also addresses the practical questions of controller tuning on a live plant, loop performance monitoring and the discipline of managing change to control configuration.

What you will learn

- Design cascade, ratio and feedforward control strategies
- Assess where multivariable and model predictive control is justified
- Configure batch control and sequencing for a defined operation
- Tune controllers safely on a live plant and verify the result
- Monitor loop performance and identify degraded loops
- Apply alarm management principles to reduce flooding and operator load
- Manage change to control configuration under a controlled process

Who should attend

- Control and instrumentation engineers
- Process automation engineers
- Process engineers working closely with control systems
- Technical supervisors in automated plant
- Maintenance staff supporting control systems

Course outline

- 01 Control layers, from regulatory through advanced to optimisation
- 02 Cascade, ratio and feedforward strategies
- 03 Multivariable and model predictive control, and when it pays
- 04 Batch control and sequencing
- 05 Controller tuning on a live plant
- 06 Loop performance monitoring and finding degraded loops
- 07 Alarm management, flooding and operator load during upsets
- 08 Management of change for control configuration

Upcoming dates

Dates	Venue	Format	Fee per delegate
21 to 25 September 2026	Harare, Zimbabwe	Classroom	USD 1,325
23 to 27 November 2026	Port Louis, Mauritius	Classroom	USD 1,325
7 to 11 December 2026	Lusaka, Zambia	Classroom	USD 1,325
22 to 26 February 2027	Windhoek, Namibia	Classroom	R19,950



Fees and how to register

This 5 day course is **R8,500** per delegate online, **R19,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 1,325** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afri-science.co.za, or WhatsApp us on **+27 63 479 1136**.

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