

Industrial Alarm Management and Rationalisation Training Course

17 – 21 January 2027
Johannesburg

AGILE LEADERS
Training Center

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Ref: 1856_238818 **Date:** 17 – 21 January 2027 **Location:** Johannesburg **Fees:** 6000 Euro

Overview

Industrial Alarm Management and Rationalisation Training Course is a one-week professional programme for control and instrumentation engineers, process engineers, operations supervisors, control-room leaders, safety professionals and automation specialists. Participants learn to manage alarms as a lifecycle rather than a configuration task, linking alarm philosophy, identification, rationalisation, detailed design, operation, maintenance, monitoring, management of change and audit. The course uses current concepts from IEC 62682:2022, the ISA-18 series and EEMUA 191 without claiming certification. Participants leave with an Alarm Management Improvement File. Agile Leaders Training Center develops practical industrial alarm governance and performance capability.

Who Should Attend

- Control, instrumentation and automation engineers
- Process engineers and operations technologists
- Control-room supervisors and operator-training leaders
- Process-safety and functional-safety professionals
- Maintenance, reliability and management-of-change coordinators

Participants should understand process operations and control-system terminology. The course does not authorise safety-system changes, replace site risk assessment or confer standards certification.

Departments and Industries

The course supports operations, process engineering, control and instrumentation, automation, maintenance, reliability, process safety and technical assurance teams in oil and gas, chemicals, power, water, manufacturing, mining, pharmaceuticals and other process industries.

Learning Objectives

- Explain the alarm-management lifecycle and governance roles
- Build an alarm philosophy with practical decision rules
- Conduct alarm identification and rationalisation workshops
- Assign priorities, setpoints, deadbands and delays consistently
- Control nuisance, chattering, standing and stale alarms
- Analyse floods, bad actors and performance metrics
- Structure management of change, audit and continuous improvement

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Course Methodology

The programme uses standards mapping, philosophy templates, rationalisation scenarios, priority matrices, alarm records, trend data, flood timelines, bad-actor analysis and improvement workshops. Daily outputs combine into an Alarm Management Improvement File containing governance, rationalisation, design, monitoring and assurance tools.

Day 1: Alarm Lifecycle, Philosophy and Governance

- Purpose of an alarm and the required operator response
- Alarm lifecycle stages and interfaces with control and safety systems
- Roles, responsibilities, ownership and decision authority
- Alarm philosophy structure, definitions and design principles
- Building the site alarm-management baseline

Day 2: Identification, Rationalisation and Prioritisation

- Determining whether an alarm is necessary and actionable
- Documenting cause, consequence, response and available time
- Using consequence and time-to-respond in priority decisions
- Classifying alarms and identifying safeguards and dependencies
- Running and recording a rationalisation workshop

Day 3: Detailed Alarm Design and Human Factors

- Alarm messages, presentation and operator decision support
- Setpoints, deadbands, on-delays, off-delays and debounce logic
- Shelving, suppression, out-of-service states and dynamic alarming
- Startup, shutdown, batch and operating-mode considerations
- Designing alarms for clarity, consistency and maintainability

Day 4: Performance Monitoring and Bad-Actor Analysis

- Alarm rate, priority distribution and standing-alarm measures
- Detecting chattering, fleeting, stale and frequently occurring alarms
- Reconstructing alarm floods and operator workload
- Using historian data to rank bad actors and recurring patterns
- Building a performance dashboard and action backlog

Day 5: Maintenance, Change, Audit and Improvement

- Testing, repair, documentation and alarm-system maintenance
- Management of change for settings, logic and operating context
- Periodic assessment, formal audit and evidence requirements
- Governance of packaged-system and vendor alarms
- Completing a prioritised alarm improvement roadmap

Practical Outputs

- Alarm philosophy outline
- Rationalisation decision worksheet
- Alarm priority matrix
- Detailed design and shelving checklist
- Alarm performance dashboard
- Audit and improvement roadmap

Frequently Asked Questions

Does the course provide certification to IEC or ISA standards?

No. It uses recognised lifecycle terminology for professional development and does not confer certification.

Is this a PLC programming course?

No. It focuses on operator alarms, governance, rationalisation, design quality and performance.

Will participants rationalise alarms?

Yes. They practise necessity, consequence, response, priority and documentation decisions using scenarios.

Does the course cover alarm floods?

Yes. Participants reconstruct floods, assess workload and identify bad actors and improvement actions.

What is the main workplace output?

Participants complete an Alarm Management Improvement File and implementation roadmap.