



AI-Assisted Fiscal Metering and Custody Transfer Course

3 – 7 October 2027
Johannesburg

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Ref: 265_122835 **Date:** 3 – 7 October 2027 **Location:** Johannesburg **Fees:** 6000 Euro

Overview

AI-Assisted Fiscal Metering and Custody Transfer Course is a five-day foundation course for metering engineers, instrumentation professionals, operations teams, measurement specialists, commercial analysts, and supervisors, who leave with an AI-Assisted Fiscal Metering Assurance Plan. Participants connect meter, prover, flow-computer, pressure, temperature, density, quality, uncertainty, reconciliation, and audit evidence to anomaly investigations and accountable measurement decisions. Agile Leaders Training Center provides training in AI-assisted fiscal metering and custody transfer.

Who Should Attend

- Metering teams responsible for measurement integrity and performance
- Instrumentation teams responsible for meter and transmitter evidence
- Operations teams responsible for process context and intervention
- Measurement specialists responsible for uncertainty and validation
- Commercial teams responsible for reconciliation and transfer evidence
- Supervisors responsible for approval, escalation, and audit readiness

The course assumes participants work with metering or transfer information and leaves out instrument installation, flow-computer programming, laboratory methods, detailed standards certification, and model development.

Departments and Industries

The course supports reviewed fiscal measurement decisions across fluid-transfer operations.

- Fiscal metering and measurement functions
- Instrumentation, operations, and maintenance teams
- Commercial reconciliation and loss-control functions
- Oil, gas, refining, and petrochemical organizations
- Pipeline, terminal, and storage operations
- Utilities and bulk-liquid transfer organizations

Learning Objectives

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



- Apply decision boundaries to AI-assisted fiscal metering use cases
- Analyze meter, prover, process, and quality signals
- Evaluate uncertainty, anomalies, and reconciliation evidence
- Diagnose apparent losses using validated operational context
- Build review, approval, and audit controls
- Build an AI-Assisted Fiscal Metering Assurance Plan

Course Agenda

Day 1: Measurement Scope and Evidence

- Fiscal Measurement Boundary Map
- Metering System and Data Source Register
- Custody Transfer Responsibility Matrix
- Measurement Quality and Access Checklist
- Human Review and Approval Rights Map

Day 2: Meter and Process Signals

- Meter and Prover Performance Trend
- Pressure and Temperature Validation Table
- Density, Composition, and Quality Register
- Flow-Computer Input Consistency Check
- Signal Confidence and Missing Data Grid

Day 3: Uncertainty and Anomalies

- Measurement Uncertainty Contribution Map
- Calibration and Verification Evidence Log
- Meter Anomaly Classification Board
- Drift, Bias, and Threshold Review
- Anomaly Confirmation and Escalation Gate

Day 4: Reconciliation and Assurance

- Mass Balance and Reconciliation Sheet
- Apparent Loss Investigation Tree
- Measurement Adjustment Decision Record
- Audit Evidence and Traceability Pack
- Assurance Indicator and Owner Scorecard



Day 5: Fiscal Metering Practice

- Suggested Exercise: Map Measurement Boundaries and Sources
- Suggested Exercise: Validate Meter and Process Signals
- Suggested Exercise: Assess Uncertainty and Investigate Anomalies
- Suggested Exercise: Reconcile Volumes and Build Audit Evidence
- Capstone Exercise: AI-Assisted Fiscal Metering Assurance Plan

Practical Exercises

The course uses suggested activities that convert measurement evidence into reviewed assurance actions.

- Suggested activity: map custody boundaries, systems, data ownership, quality checks, and approval rights
- Suggested activity: compare meter, prover, pressure, temperature, density, composition, and flow-computer signals
- Suggested activity: document uncertainty contributions, examine calibration evidence, classify anomalies, and set escalation thresholds
- Suggested activity: reconcile quantities, investigate apparent losses, document adjustments, and assemble traceable audit evidence

FAQs

Who suits AI-assisted fiscal metering and custody transfer training?

AI-assisted fiscal metering and custody transfer training suits metering, instrumentation, operations, measurement, commercial, and supervisory teams. It assumes familiarity with measurement records and requires no programming.

How does AI fiscal metering differ from general instrumentation training?

AI fiscal metering focuses on transfer boundaries, measurement evidence, uncertainty, anomalies, reconciliation, assurance, and accountable decisions. General instrumentation training addresses wider device selection and configuration outside this course.

Which data supports AI-assisted custody transfer assurance?

Useful data includes meter factors, prover runs, flow-computer inputs, pressure, temperature, density, composition, quality, calibration, alarms, maintenance, transfers, inventories, adjustments, and reconciliation records.



Why must teams review AI-detected metering anomalies?

Human review checks sensor quality, process transitions, configuration, calibration, maintenance, product changes, uncertainty, commercial consequences, false positives, authorization, and evidence before an anomaly triggers action.

What belongs in an AI-Assisted Fiscal Metering Assurance Plan?

The plan includes boundaries, systems, sources, quality rules, uncertainty, performance signals, anomaly thresholds, reconciliation, loss investigation, adjustment rights, review gates, audit evidence, measures, owners, and escalations.

Conclusion

Participants take back an AI-Assisted Fiscal Metering Assurance Plan connecting measurement boundaries, meter and process signals, uncertainty, anomalies, reconciliation, and audit evidence. The plan makes validation, adjustment rights, and ownership visible. It supports traceable custody-transfer decisions, controlled investigations, and monitored measurement assurance.