



ENGINEERING AND TECHNICAL TRAINING

Process Plant Troubleshooting and Problem Solving

5 day course

Classroom, online or in-house

Course overview

Plant problems are rarely solved by the first explanation offered, and the cost of acting on a wrong diagnosis is usually higher than the cost of the original fault. This course builds a structured troubleshooting method for process plant. Delegates work through problem definition, data gathering and the assessment of instrument credibility, hypothesis generation and elimination, and the use of mass and energy balances to locate a fault. Root cause techniques are applied to real plant scenarios, and the course closes on the organisational half of the problem: recording findings, implementing a durable fix and preventing recurrence rather than repeating the repair.

What you will learn

- Define a plant problem precisely enough to be solvable
- Gather data and assess whether the instruments reporting it are credible
- Generate and eliminate hypotheses systematically
- Use mass and energy balances to locate a fault
- Apply root cause analysis techniques to plant scenarios
- Distinguish a durable fix from a repeated repair
- Record findings so the next occurrence is solved faster

Who should attend

- Process, production and plant engineers
- Operations supervisors and shift leaders
- Maintenance and reliability engineers
- Technical support staff
- Graduate engineers in operating plant

Course outline

- 01 Defining the problem, and why most troubleshooting fails here
- 02 Data gathering and instrument credibility
- 03 Hypothesis generation and structured elimination
- 04 Using mass and energy balances to locate a fault
- 05 Root cause analysis applied to plant scenarios
- 06 Common failure patterns in process equipment
- 07 Durable fixes against repeated repairs
- 08 Recording findings and preventing recurrence

Upcoming dates

Dates	Venue	Format	Fee per delegate
2 to 6 November 2026	Kigali, Rwanda	Classroom	USD 1,325
16 to 20 November 2026	Online	Online	R8,500
7 to 11 December 2026	Dar es Salaam, Tanzania	Classroom	USD 1,325
21 to 25 December 2026	Harare, Zimbabwe	Classroom	USD 1,325



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@afiscience.co.za, or WhatsApp us on **+27 63 479 1136**.

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