



POWER AND ELECTRICAL TRAINING

Smart Grid Automation, Communication and Observability

5 day course

Classroom, online or in-house

Course overview

A distribution network with no visibility beyond the substation is operated on customer telephone calls. This course covers changing that. Delegates work through distribution automation and the devices that provide switching and sensing in the field, the communication technologies that reach them, and the control systems that turn measurements into operational awareness. Fault location, isolation and supply restoration are covered as the capability that most directly reduces outage duration. Distributed generation and its effect on protection and observability receive detailed treatment, and the course closes on cyber security for operational technology, which a connected network makes unavoidable.

What you will learn

- Describe distribution automation devices and what each provides
- Compare communication technologies for reaching field devices
- Integrate field data into control and monitoring systems
- Implement fault location, isolation and supply restoration
- Assess the effect of distributed generation on protection and visibility
- Apply cyber security controls to operational technology
- Build a staged automation programme with measurable outage benefit

Who should attend

- Distribution network engineers
- Protection, control and automation engineers
- Utility operations and control room staff
- Information and operational technology staff in utilities
- Regulators assessing network investment

Course outline

- 01 Operating a network you cannot see
- 02 Distribution automation devices
- 03 Communication technologies to the field
- 04 Control systems and operational awareness
- 05 Fault location, isolation and restoration
- 06 Distributed generation and its consequences
- 07 Cyber security for operational technology
- 08 Staging an automation programme

Upcoming dates

Dates	Venue	Format	Fee per delegate
12 to 16 October 2026	Online	Online	R8,500
19 to 23 October 2026	Dar es Salaam, Tanzania	Classroom	USD 1,325
21 to 25 December 2026	Maseru, Lesotho	Classroom	R19,950
25 to 29 January 2027	Durban, South Africa	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@afiscience.co.za, or WhatsApp us on **+27 63 479 1136**.

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