



POWER AND ELECTRICAL TRAINING

Electrical Power Distribution and Protection Coordination

3 day course

Classroom, online or in-house

Course overview

A three day course on designing an industrial distribution network and setting the protection that makes it selective. Delegates work through medium and low voltage system design, fault current and short circuit calculation, and the selection of relays, fuses and circuit breakers for each part of a network. Coordination is the heart of the course: delegates build and interpret time current grading curves, so that a fault clears at the device nearest to it rather than tripping half the plant. Earthing, bonding and system grounding are covered as design decisions with direct safety consequences, and the course closes on switchgear selection and protection testing, addressing the switchgear and coordination problems commonly found on industrial sites across the region.

What you will learn

- Design medium and low voltage distribution networks for industrial facilities
- Select and coordinate protective relays, fuses and circuit breakers
- Perform fault current calculations for distribution system protection
- Interpret protection coordination curves and time current grading studies
- Apply earthing and bonding principles to distribution system design
- Set earth fault and differential protection for transformers and feeders
- Investigate a mis operation and correct the settings that caused it

Who should attend

- Electrical engineers
- Protection engineers
- Substation engineers
- Plant electrical supervisors
- Design engineers working on distribution projects

Course outline

- 01 Medium and low voltage distribution system design
- 02 Fault current analysis and short circuit calculations
- 03 Protective relay types and application
- 04 Protection coordination and time current grading
- 05 Earth fault, differential and transformer protection
- 06 Earthing, bonding and system grounding
- 07 Switchgear selection and protection testing
- 08 Investigating relay mis operation and correcting settings

Upcoming dates

Dates	Venue	Format	Fee per delegate
11 to 13 November 2026	Gaborone, Botswana	Classroom	R14,950
11 to 13 January 2027	Online	Online	R6,500
17 to 19 February 2027	Durban, South Africa	Classroom	R14,950
29 to 31 March 2027	Mbabane, Eswatini	Classroom	R14,950



Fees and how to register

This 3 day course is **R6,500** per delegate online, **R14,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 995** 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@afriscience.co.za, or WhatsApp us on **+27 63 479 1136**.

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