



POWER AND ELECTRICAL TRAINING

Condition Monitoring of Power System Equipment

5 day course

Classroom, online or in-house

Course overview

Replacing power system plant on age replaces serviceable equipment and leaves deteriorating equipment in service. This course covers deciding on evidence instead. Delegates work through the degradation mechanisms of transformers, switchgear, cables and rotating plant, and the monitoring technique that reveals each: dissolved gas analysis, partial discharge, thermography, dielectric response and online monitoring systems. Data interpretation across a fleet rather than a single asset is a central theme, along with setting alarm thresholds that do not simply generate noise. The course closes on converting condition data into a ranked maintenance and replacement programme a capital committee will fund.

What you will learn

- Identify the degradation mechanisms of each major plant type
- Select the monitoring technique that reveals a given mechanism
- Interpret dissolved gas, partial discharge and thermographic data
- Apply dielectric response and online monitoring appropriately
- Set alarm thresholds that signal rather than generate noise
- Interpret condition data across a fleet
- Convert condition data into a ranked, fundable programme

Who should attend

- Asset managers and asset strategy engineers
- Condition monitoring specialists
- Utility and industrial electrical engineers
- Maintenance and reliability engineers
- Capital planning staff

Course outline

- 01 Replacing on evidence rather than on age
- 02 Degradation mechanisms by plant type
- 03 Dissolved gas analysis
- 04 Partial discharge monitoring
- 05 Thermography and dielectric response
- 06 Online monitoring systems
- 07 Alarm thresholds and avoiding noise
- 08 Fleet interpretation and a fundable programme

Upcoming dates

Dates	Venue	Format	Fee per delegate
12 to 16 October 2026	Online	Online	R8,500
19 to 23 October 2026	Lusaka, Zambia	Classroom	USD 1,325
4 to 8 January 2027	Pretoria, South Africa	Classroom	R19,950
8 to 12 February 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@afriScience.co.za, or WhatsApp us on **+27 63 479 1136**.

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