



EMERGING TECHNOLOGIES TRAINING

Robotics Applications in Energy and Infrastructure Projects

3 day course

Classroom, online or in-house

Course overview

Robots reach industry through inspection long before they reach production, because the first honest case is usually a place a person should not have to go. This course starts there. Delegates work through the environments that justify a robot: confined spaces, height, live plant, radiation and subsea, and the operational question each poses. Platform types follow, including crawlers, drones, remotely operated vehicles and manipulators, with the payloads each can carry. Inspection sensing is covered: visual, thermal, ultrasonic thickness and gas detection. Autonomy is treated honestly, from teleoperation through assisted control to genuinely autonomous survey. Data handling, defect reporting and integration with the asset register follow. Regulatory and permit considerations are addressed, including flying near live infrastructure. The course closes on procurement, on operator training and on the cases where a robot is not the answer.

What you will learn

- Identify environments where a robot is genuinely justified
- Match platform type to the environment and the payload needed
- Select inspection sensing for the defect being sought
- Judge the level of autonomy a task actually supports
- Handle inspection data and report defects into the asset register
- Meet regulatory and permit requirements near live infrastructure
- Procure, train operators and recognise when a robot is wrong

Who should attend

- Infrastructure engineers
- Maintenance managers
- Utility operations leads
- Project engineers
- Asset management specialists

Course outline

- 01 Where a person should not go
- 02 Confined space, height and live plant
- 03 Radiation and subsea environments
- 04 Crawlers, drones, vehicles and manipulators
- 05 Visual, thermal and ultrasonic sensing
- 06 Gas detection and payload limits
- 07 Teleoperation to autonomous survey
- 08 Data, permits, procurement and limits

Upcoming dates

Dates	Venue	Format	Fee per delegate
4 to 6 November 2026	Kampala, Uganda	Classroom	USD 995
8 to 10 February 2027	Kigali, Rwanda	Classroom	USD 995
24 to 26 February 2027	Online	Online	R6,500



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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