



AI AND DIGITAL TRANSFORMATION TRAINING

AI for Quality Control and Manufacturing Analytics

5 day course

Classroom, online or in-house

Course overview

Machine learning has genuine application in manufacturing quality, particularly in visual inspection and in predicting failures from process data. It also has a substantial record of pilots that never reached production. This course covers both. Delegates work through the data requirements that determine whether a model is possible at all, visual inspection and defect classification, predictive quality from process parameters, anomaly detection, and the integration of a model into a production decision. Attention is given to model drift, the retraining regime a deployed model requires, and the validation expected where a model affects product release.

What you will learn

- Assess whether the available data supports a model at all
- Apply machine vision to defect detection and classification
- Build predictive quality models from process parameters
- Apply anomaly detection to process and equipment data
- Integrate a model output into a production decision
- Manage model drift and plan the retraining regime
- Validate a model where it affects product release

Who should attend

- Quality and manufacturing engineers
- Data analysts and scientists in industry
- Process and automation engineers
- Operations managers evaluating analytics investment
- Continuous improvement practitioners

Course outline

- 01 Where machine learning genuinely helps in manufacturing
- 02 Data requirements and whether a model is possible
- 03 Machine vision for defect detection and classification
- 04 Predictive quality from process parameters
- 05 Anomaly detection on process and equipment data
- 06 Integrating model output into a production decision
- 07 Model drift and retraining
- 08 Validation where a model affects product release

Upcoming dates

Dates	Venue	Format	Fee per delegate
5 to 9 October 2026	Dar es Salaam, Tanzania	Classroom	USD 1,325
4 to 8 January 2027	Maputo, Mozambique	Classroom	USD 1,325
1 to 5 February 2027	Online	Online	R8,500
8 to 12 February 2027	Windhoek, Namibia	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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