



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
24 to 28 September 2026	Dar es Salaam, Tanzania	Classroom	R11,995
16 to 20 October 2026	Cape Town, South Africa	Classroom	R11,995
1 to 5 November 2026	Victoria, Seychelles	Classroom	R11,995
12 to 16 November 2026	Port Louis, Mauritius	Classroom	R11,995



Fees and how to register

Online **from R6,500** per delegate, classroom **from R11,995** per delegate, 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@afri-science.co.za, or WhatsApp us on **+27 63 479 1136**.

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