

**DRILLING, WELLS AND RESERVOIR ENGINEERING**

Drilling Optimisation and Performance Engineering

5 day course

Classroom, online or in-house

Course overview

Two offset wells in the same field can differ by weeks for no geological reason: one crew tripped faster, one bit was pulled too early, one connection routine wasted minutes on every stand. Performance engineering finds and removes that variation. Delegates learn to benchmark offsets, break invisible lost time out of rig sensor data and build a technical limit for each section. Mechanical specific energy, dysfunction diagnosis for whirl, stick slip and bit balling, parameter roadmaps and bit and BHA selection are treated as tools for sustained penetration rate. Later sessions cover flat time reduction, after action reviews and how to embed learning curves across a campaign. Delegates leave able to run a structured performance review and set credible targets that a contractor can actually meet.

What you will learn

- Benchmark offset wells to separate geological from operational time differences
- Quantify invisible lost time from rig sensor and connection data
- Construct a technical limit for each hole section
- Apply mechanical specific energy to diagnose drilling inefficiency
- Identify whirl, stick slip and bit balling from surface and downhole signatures
- Develop a parameter roadmap for weight on bit, rotary speed and flow rate
- Plan flat time reduction for tripping, casing runs and connections
- Lead after action reviews that feed lessons into the next well

Who should attend

- Drilling engineers responsible for performance improvement
- Drilling superintendents and rig managers
- Bit, BHA and downhole tool application engineers
- Real time operations centre engineers
- Drilling contractor performance and operations leads

Course outline

- 01** Benchmarking offsets and defining the performance gap
- 02** Invisible lost time and rig state analysis
- 03** Technical limit planning by hole section
- 04** Mechanical specific energy and drilling efficiency
- 05** Vibration, stick slip and bit dysfunction
- 06** Parameter roadmaps, bit and BHA selection
- 07** Flat time: tripping, connections and casing running
- 08** Real time monitoring and decision making
- 09** After action reviews and campaign learning curves

Upcoming dates



Dates	Venue	Format	Fee per delegate
21 to 25 December 2026	Casablanca, Morocco	Classroom	USD 1,325
28 December 2026 to 1 January 2027	Maputo, Mozambique	Classroom	USD 1,325
4 to 8 January 2027	Windhoek, Namibia	Classroom	R19,950
11 to 15 January 2027	Pretoria, 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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