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ESP TROUBLESHOOTING IN ARTIFICIAL LIFT OPERATIONS

Start Date:	04/04/2027	**End Date:**	08/04/2027
Categories:	Oil & Gas	**Venues:**	Cairo
Formats:	In Person	**Instructors:**	

OVERVIEW

This specialized course is designed to equip engineers, operators, and maintenance professionals with the knowledge and skills needed to effectively troubleshoot Electrical Submersible Pump (ESP) systems in artificial lift operations. The course focuses on diagnosing operational issues, identifying root causes of ESP failures, and applying best practices in maintenance and optimization to ensure reliable production.

OBJECTIVES

By the end of this course, participants will be able to: • Understand the key components and operation principles of ESP systems. • Identify common failure modes and symptoms in ESP operations. • Apply systematic troubleshooting techniques to diagnose ESP performance issues. • Interpret ESP performance curves and well parameters for optimization. • Implement preventive maintenance strategies to extend ESP run life. • Utilize field data and software tools to support troubleshooting decisions.

COURSE OUTLINE

1. Fundamentals of ESP Systems in Artificial Lift 2. Common ESP Failure Modes and Root Causes 3. Troubleshooting Techniques and Diagnostic Procedures 4. Monitoring Tools and Data Interpretation 5. Maintenance Best Practices and Optimization Strategies 6. Case Studies and Group Exercises

TARGET AUDIENCE

All supervisory levels, Petroleum engineers, production engineers, artificial lift specialists, field supervisors, and ESP maintenance personnel.

METHODOLOGY

Interactive lectures, real-world case studies, group discussions, practical exercises, and troubleshooting simulations.

CONCLUSION

Participants will gain actionable skills and troubleshooting methodologies that can be applied immediately to improve ESP reliability and field performance.

DAILY AGENDA

Day 1: Introduction to ESP Systems

Overview of artificial lift methods with focus on ESP systems; system components and operating principles; overview of installation configurations.

Day 2: ESP Failure Modes

Detailed study of mechanical, electrical, and operational failure modes; identifying early warning signs and root causes.

Day 3: Systematic Troubleshooting

Troubleshooting workflow and steps; tools and methods; interpreting alarms and performance data; field examples.

Day 4: Optimization and Maintenance

ESP monitoring tools; reading and analyzing performance curves; improving efficiency; planned vs reactive maintenance strategies.

Day 5: Case Studies and Simulations

Hands-on group troubleshooting scenarios; real case reviews; best practices discussion and wrap-up session.

For more information, please contact us:
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