

# **Advanced ESP Operations and Troubleshooting**

#### **COURSE OVERVIEW**

This advanced course on Electrical Submersible Pump (ESP) Operations and Troubleshooting provides engineers and technicians with essential skills for managing and resolving issues in ESP systems used in oil and gas production. It covers ESP principles, components, and types, focusing on system design, performance optimization, and monitoring. Participants will learn advanced troubleshooting techniques to address motor failures, pump inefficiencies, power issues, and mechanical faults using tools like data logs, vibration analysis, and telemetry to diagnose and resolve problems efficiently.

### WHO SHOULD ATTEND?

The target audience for this course includes engineers, technicians, and professionals working in the oil and gas industry, particularly those involved in the operation, maintenance, and troubleshooting of Electrical Submersible Pump (ESP) systems. It is also suitable for project managers, field supervisors, and maintenance staff who need to enhance their understanding of ESP system design, optimization, and performance monitoring. In addition, the course is also beneficial for professionals aiming to develop expertise in diagnosing and resolving complex ESP issues.

## **COURSE OUTCOMES**

Delegates will gain knowledge and skills to:

- Understand ESP systems, components, and applications in oil and gas.
- Operate ESPs using VSDs and real-time monitoring to enhance performance.
- Troubleshoot and resolve ESP operational issues.
- Analyze data to optimize pump efficiency and solve problems.
- Implement maintenance plans to reduce downtime and extend equipment life.
- Gain hands-on experience in ESP operations and troubleshooting.
- Follow safety protocols and industry standards to minimize risks.
- Communicate technical information to engineers, operators, and management.

### **KEY COURSE HIGHLIGHTS**

At the end of the course, you will understand:

- In-Depth Understanding of ESP Systems
- Real-Time Monitoring Techniques
- Variable Speed Drive (VSD) Applications
- Comprehensive Troubleshooting Methods
- Data Analysis and Optimization
- Preventative Maintenance Framework
- Safety and Compliance Training
- Hands-On Experience
- Technical Communication Skills
- Latest Industry Trends

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

- 1. A GTC end-of-course certificate
- 2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded











