BLACKBIRD FOR TRAINING

Practical Seismic Attributes Analysis & Interpretation

26 – 30 September 2027
Istanbul (Turkey)



Practical Seismic Attributes Analysis & Interpretation

Ref: 321633_166178 **Date:** 26 – 30 September 2027 **Location:** Istanbul (Turkey) **Fees:** 4900 GBP

Why This Course

Seismic attributes are powerful tools for enhancing reservoir characterization and subsurface interpretation. This intensive 1-week program equips geoscientists and reservoir engineers with the skills to select, generate, and interpret seismic attributes effectively. Through hands-on exercises, practical workflows, and industry-standard software, participants will learn to integrate seismic attributes into comprehensive reservoir models, improving interpretation accuracy and supporting informed exploration and production decisions.

What You'll Learn and Practice

By attending this program, you will be able to:

- Understand the principles and applications of key seismic attributes.
- Select appropriate attributes for specific geological and structural settings.
- Conduct multi-attribute analysis and visualization to reveal subsurface features.
- Apply machine learning techniques to enhance attribute interpretation.
- Integrate seismic attributes into comprehensive reservoir characterization workflows.

The Program Flow

Day 1: Fundamentals of Seismic Attributes

- Introduction to seismic attributes and their importance
- Classification and types of seismic attributes
- Understanding seismic resolution and bandwidth
- Attribute generation workflows

Day 2: Structural and Stratigraphic Attributes

- Coherence and variance attributes
- Curvature attributes
- Dip and azimuth attributes
- Spectral decomposition techniques



Day 3: Reservoir Characterization Attributes

- Amplitude-based attributes
- Acoustic and elastic impedance inversion
- AVO Amplitude Versus Offset attributes
- Attributes for fracture detection

Day 4: Multi-Attribute Analysis

- Co-rendering and RGB blending techniques
- Principal Component Analysis PCA
- Self-Organizing Maps SOM
- Machine learning applications in attribute analysis

Day 5: Integrated Interpretation Workflows

- Attribute-based facies classification
- Direct Hydrocarbon Indicator DHI analysis
- Integrating seismic attributes with well data
- Case studies and industry best practices

Individual Impact

Participants will leave the course with:

- The ability to select optimal seismic attributes for specific geological settings.
- Proficiency in multi-attribute analysis and visualization techniques.
- Skills to integrate seismic attributes into reservoir characterization workflows.
- Enhanced interpretation accuracy and efficiency in identifying subsurface features.

Organizational Impact

Organizations will benefit from:

- Improved reservoir models based on more accurate seismic interpretations.
- Enhanced decision-making for exploration, development, and production strategies.
- Greater efficiency in subsurface analysis and risk reduction.
- The ability to leverage advanced seismic attribute workflows for competitive advantage.



Training Methodology

- Hands-on exercises using industry-standard seismic software
- Practical case studies and interpretation workflows
- Collaborative problem-solving and group analysis
- Integration of machine learning techniques for advanced attribute analysis

Beyond the Course

By the end of the one week, participants will be fully prepared to:

- Apply seismic attribute analysis to complex geological settings confidently.
- Integrate multiple attributes and data sources for comprehensive reservoir characterization.
- Use advanced visualization and machine learning techniques to enhance interpretation.
- Support informed exploration and production decisions with high-quality seismic insights.

