PetroSkills

3D Seismic Attributes for Reservoir Characterization - SARC

COURSE

About the Course

The primary objective of this course is to gain an intuitive understanding of the kinds of seismic features that can be identified by 3D seismic attributes, the sensitivity of seismic attributes to seismic acquisition and processing, and how independent seismic attributes are coupled through geology. We will also discuss alternative workflows using seismic attributes for reservoir characterization as implemented by modern commercial software and practiced by interpretation service companies. Participant discussion centered around case studies, attribute recipes for particular objectives, reservoir workflows and seismic attribute jeopardy exercises will be the main focus of the course.

"The course content was such that it is suitable across experience levels as well as across various geoscience disciplines. Also the Q&A sessions were very useful." - Participant, India

Target Audience

Seismic interpreters, processors, stratigraphers and structural geologists, reservoir engineers, and students of geophysics.

You Will Learn

Participants will learn how to:

- Use attributes to enhance subtle faults and folds, as lithologic indicators, and quality control the choice of processing parameters
- Evaluate and exploit attribute expressions for different depositional environments to better characterize reservoirs by adopting appropriate workflows and multi-attribute tools
- Identify geological features highlighted by attributes, limitations to seismic processing through attributes that may result in smeared attribute images from multi-azimuth and multi-offset data, limits of attribute analysis on data that have been poorly imaged and good and bad color display practices

Course Content

- Introduction to seismic attributes
- Quantiative seismic interpretation
- Coherence attributes
- Curvature attributes

- Seismic resolution and spectral decomposition
- Phase decomposition
- Bandwidtch extension
- AVO analysis and interpretation
- Seismic impedence inversion
- Gas storage and carbon sequestration
- Seismic attributes for shale resource plays
- Geothermal reservoir characterization
- Reservoir characterization case studies
- Seismic facies classification using unsupervised machine learning methods
- Attribute application recipes

Product Details

Categories: Upstream

Disciplines: Geophysics

Levels: Specialized

Product Type: Course

Formats Available: In-Classroom

Instructors: Satinder Chopra

In-Classroom Format

23 Sep '24 27 Sep '24 -	Course	In-Classroom (in London)	$5,685.00