

Seismic Techniques Throughout the Life of Oil & Gas Reservoirs

From May 27th to May 31th, 2024

Who should attend?

The course would be beneficial for professionals and individuals involved in the oil and gas industry, mainly:

- Geophysicists.
- Geologists who want to benefit from understanding how seismic data integrates with geological concept.
- Reservoir Engineers, Petroleum Engineers, Exploration and Production Managers would understand how seismic techniques can support their daily work and can contribute to decision-making processes.
- Data scientists and analysts involved in oil and gas industry.

Instructor

Abdelkader CHAOUCH

Duration

5 days

French / English

(according to the majority request)

Venue

OGIM Premises-Monastir

Fees per Participant:

(Course - Lunch and 2 coffee breaks included)

For resident: 2 800 DT

For non-resident: 850 €

***+150 € : for airport reception and local transfer to our premises during the training on request.**

Course Objective

The main objective of the course is to develop a comprehensive understanding of oil and gas reservoirs, their components, the complexity of their characterisation and the crucial role that seismic techniques play during the life of these reservoirs.

Course Content

The course starts with a definition of reservoirs components and the need for a comprehensive management during a long period of time. Within this management, seismic techniques play a pivotal role during the E & P chain.

The course passes in review each phase of the chain and indicates the critical data for reservoir characterisation that the seismic can provide during this phase.

Seismic data are the main source of information for reservoir investigation during the exploration phase with structural, stratigraphy interpretations and acoustic inversion.

During early stages of development and production, the integration of well data will refine reservoir parameters and introduce new ones.

Then comes reservoir monitoring with 4-D seismic surveys.

When enhanced oil recovery (EOR) is necessary, more accurate representation of subsurface structures and properties need to be performed. Seismic attributes can play this role.

Well seismic can give valuable information around drilled wells during production and optimise new well placements.

Seismic data serves as a key input for building and updating reservoir models.

Today, emerging techniques play an important role in reservoir characterisation. Machine learning can be applied to analyse vast amounts of seismic data and extract meaningful patterns. Machine learning and Artificial Intelligence (AI) contribute to improved reservoir characterization by enhancing the identification of geological features, lithology variations, and fluid distributions.

Instructor Resume :

Abdelkader Chaouch has 26 years of experience in a major oil and gas company in the field of seismic exploration. He also run consultancy activities for over 7 years mainly in the management of 3-D seismic surveys. In addition to his engineering activities, Abdelkader gained a strong experience as a university and high school lecturer teaching fundamentals and advanced seismic techniques for B.Sc. and M.Sc. students such as 3-D seismic, A.V.O., Seismic attributes for reservoir, etc.. Abdelkader holds a Civil Engineer Diploma, a M.Sc. in Geology, and a Ph.D. in Applied Geophysics from the University of Pierre et Marie Curie in Paris - France. His professional experience covers seismic surveys pre-planning, field operations in land and marine environment, supervision of seismic data processing with different contractors, seismic interpretation in extensional and compressional domains and well seismic.

