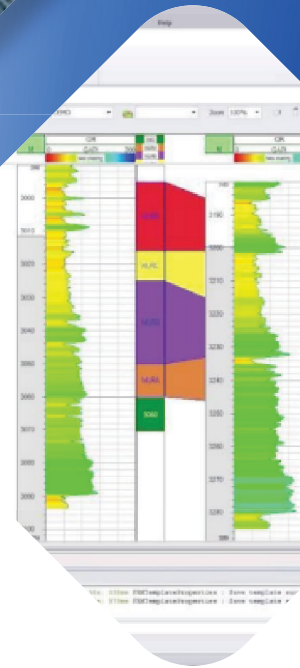




# ADVANCED TECHNIQUES IN RESERVOIR MODELLING AND PREDICTIVE SURVEILLANCE OPERATIONS



## Course Objective:

Edvantage Learning aims to equip learners with a comprehensive understanding of reservoir modeling, from basic principles to advanced simulation studies. Participants will explore techniques like history matching, sensitivity analysis, and decline curve analysis, learning to integrate these insights into real-world surveillance and field development plans. By the end of the course, learners will have the tools to evaluate well integrity, interpret simulation results, and apply these concepts to optimize reservoir management.

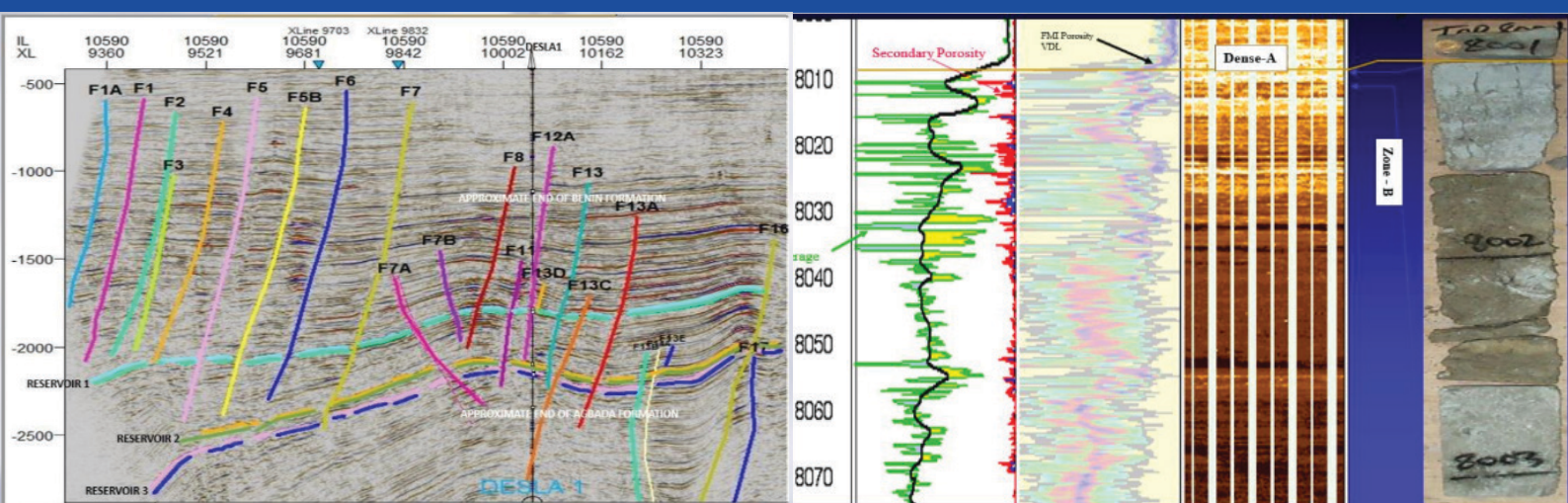
# Prerequisites:

For new learners, a basic understanding of reservoir engineering and oil field operations is recommended. Professionals with experience in oil & gas operations, surveillance, or reservoir management will benefit from deepening their knowledge through advanced simulation techniques and case studies.

**Duration:** 1 Week

## Why Join:

- 🎯 **Boost Career in Reservoir Engineering:** Gain cutting-edge skills in reservoir modeling and simulation, which are essential for higher-level roles in oil and gas operations.
- 🎯 **Hands-on Advanced Techniques:** Master advanced tools like sensitivity analysis and history matching, increasing your capability to contribute to complex field developments.
- 🎯 **Industry-Relevant Case Studies:** Learn through global case studies, applying real-world solutions to industry challenges.
- 🎯 **Strategic Decision-Making Skills:** Enhance your ability to interpret surveillance data and field development plans, positioning yourself as a key decision-maker in well integrity and reservoir optimization.



# Agenda:

## **Day 1: Reservoir Modelling - Fundamentals and Applications**

1. Introduction to Reservoir Modelling.
2. Steps Involved in Reservoir Modelling.
3. Mathematics behind Reservoir Simulation.
4. Implications to Reservoir Surveillance Operations.

## **Day 2: Advanced Simulation Study of a Black Oil Reservoir - I (Modelling and History Matching)**

1. Overview of the Oil Field. Data file overview.
2. Modelling Approaches.
3. History Matching.
4. Base Case Prediction and Interpretation.

## **Day 3: Advanced Simulation Study of a Black Oil Reservoir - II (Sensitivity Analysis and Surveillance Operations)**

1. Sensitivity Analysis for different scenarios.
2. Integration with Production Facilities.
3. Decline Curve Analysis.

## **Day 4: Advanced Simulation Study of a Black Oil Reservoir - III (Results Reporting), Case Studies**

1. Charting and Analysis
2. Field Development Plan Preparation.
3. Global Case Studies with respect to key challenges throughout.
4. The Way Ahead

# Frequently Asked Questions (FAQs)

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## What is the duration of the course?

The course is a 1-week program designed to cover both fundamental and advanced concepts in reservoir modeling and surveillance operations.

## Who should take this course?

This course is ideal for reservoir engineers, petroleum engineers, and oil and gas professionals looking to enhance their expertise in reservoir modeling and well integrity planning. It is also suitable for new learners with a basic understanding of reservoir engineering concepts.

## What are the fees for the course?

\$150 USD or ₹9,000 INR. (Discount for first 10 participants)

## Will study materials be provided?

Yes, all necessary study materials, including lecture notes, case studies, and relevant technical information, will be provided to participants.

## Will I have access to course recordings?

Yes, participants will have access to recorded sessions for future reference and revision throughout the program.

## Do I need prior experience in reservoir engineering?

While prior experience in reservoir engineering is beneficial, new learners can still enroll, provided they have a basic understanding of oil field operations and engineering concepts.

## What kind of certificate will I receive?

Upon successful completion of the course, participants will receive a certificate of completion, which will validate their knowledge and skills in advanced reservoir modeling and integrity surveillance.

## Contact Us

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