Research Areas in Petroleum Reservoir Engineering Department

1. Reservoir Characterization:

- Studying petrophysical properties of reservoir rocks
- Integrating seismic and geological data.
- Advanced core and well log analysis using software as: NeuraLog and IP.

2. Reservoir Simulation:

- Building 3D models to forecast reservoir performance
- Simulating primary, secondary, and enhanced recovery methods
- Using software such as, CMG, PETREL.

3. Enhanced Oil Recovery (EOR) Techniques:

- Gas injection
- Chemical injection
- Thermal methods

4. Advanced Geological Modeling:

- Integration of geological and static modeling
- Creating spatial property models using modern software
- Uncertainty assessment in reservoir models

5. Artificial Intelligence and Data Analytics in Reservoir Engineering:

- Applying machine learning
- Big data analysis for reservoir behavior
- history matching in simulations

6. Reservoir Performance and Production Analysis:

- Pressure test analysis and curve building
- Production rate and decline analysis