

COURSE CONTENTS

- Chemistry of Crude Oil: Composition and Classification
- **Crude Oil Evaluation Techniques (for fuels/lube/feedstock) using Physico-Chemical and Analytical Methods**
Objectives of evaluation, Dehydration of crude oil, Atmospheric, Vacuum ASTM D-86, D-1160, Lab distillation, inter conversion of data from ASTM to TBP to EFV

Practicals and Hands-on Training on

Preliminary Assay

- **Crude Oil Composition and Characterization**
Density & API, REID vapour pressure, Light end analysis, Pour point, Viscosity, Wax content, Asphaltenes, Carbon Residue, Ash content, Distillation characteristics, (D86 or D285), Base of crude oil Carbon and Hydrogen ratio
- Non-fractionating distillation data

Short Assay

- Crude oil characteristics
- Micro constituents (S, N, Trace Metals)
- TBP Assay
- Yields and Key characteristics of straight run products and residues

Detailed Assay

- Base and detailed characteristics of crude oil
- Micro-constituents (S, N trace metals)
- TBP Assay in atmospheric and vacuum range
- Yields and characteristics of broad distillate cuts in atmospheric and vacuum range (cuts prepared with variations in IBP and FBP)
- Detailed component wise analysis of light distillates and hydrocarbon type composition of middle and vacuum distillates.
- Detailed characterization of long and short residues