

## **PE-103 Fundamentals of Petroleum Engineering**

**Introduction:** Petroleum engineering and petroleum industry. Origin, discovery, development and future prospects of Hydrocarbons. Petroleum play. Distribution of petroleum resources on local and international level. Important units.

**Reservoir:** Reservoir rock and flow properties. Introduction to Formation evaluation.

**Drilling:** The onshore and offshore operations. The rig functions, introduction to well planning, bits, introduction of drilling fluid and casing accessories.

**Production:** Introduction to production, processing and transportation. Well completion. Flow in pipes and surface production facilities. Introduction to Production forecasting, reserve categories. Environmental concerns. Corrosion and its control.

### **Recommended book(s)**

#### **Text Books:**

1. John R. Fanchi , Richard L. Christiansen, "Introduction to Petroleum Engineering", 1st Edition, Wiley, 2016.

#### **Reference Books:**

1. Andrew Clennel Palmer, "Introduction To Petroleum Exploration And Engineering", 1st Edition, World Scientific, 2016.