

Overview of Oil & Gas Reservoir Characterization from Geological and Petrophysical Perspectives

Overview:

Global petroleum exploration and production (E&P) industry continues to invest vast resources in studying the hydrocarbon-bearing rock formations in the Earth's crust at various scales of observation ranging from Basin Analysis (hundreds of kilometres) down to microscopic and sub-microscopic scales, with an ultimate goal of finding and producing oil & natural gas in quantities sufficient to meet the energy needs of the world! These studies are called Subsurface Reservoir Characterization.

This Foundation Level Course focuses on geologically guided petrophysical evaluation of subsurface rock formations by analysing different types of data acquired from wells drilled in different phases of E&P. Data acquisition and interpretation will be discussed in detail. The attendees of this Course are expected to also gain significant insights, skills and knowledge about some of the most important functions of the oil & gas exploration and production business. The Course will showcase how a multi-disciplinary (science and engineering) integrated approach in studying hydrocarbon prospects in Earth's subsurface helps enhance success in finding and producing oil & gas thereby reducing the business economic risk. The Course highlights geological & petrophysical evaluation of subsurface rock formations by analysing different types of data acquired from wells drilled in different phases of E&P. Such studies provide critical information on the characteristics of the various rock formations and the properties of hydrocarbons and other fluids contained within. Data acquisition and interpretation will be discussed in detail. Solutions available by using modern formation evaluation technologies such as nuclear magnetic resonance (NMR) and borehole imaging will be discussed by presenting case histories. Critical importance of- and the significant value added by laboratory core petrophysical measurements for reservoir characterization will also be discussed. Strengths as well as limitations of various technologies deployed in reservoir characterization will be highlighted throughout the course presentations.

Course participants will learn these topics through lectures and hands-on exercises. Also, case studies and assignments will be shared to stimulate motivation of participants for further studies as well as career choices/development.

Dates, Venue and the Course Focus	<p>July 10-14, 2018, SPPU, Pune Subsurface rock formations; oil & gas E&P basics; reservoir description & characterization from geological and petrophysical perspectives; reservoir types; using advanced technologies. Number of participants for the course will be limited to fifty.</p>
You Should Attend If...	<ul style="list-style-type: none"> • You are a student of geology/physics/chemistry/petroleum- or other engineering enrolled in M.Sc./M Tech./Ph. D programs OR a Faculty for any of these programs in reputed academic and technical institutions. • You are a professional working in the oil & gas exploration and production industry (Operator/ oilfield Service Companies) including research organizations.
Fees	<p>Participants from abroad: US \$500 Indian Industry/ Research Organizations: ` 30000 Indian Academic Institutions: ` 10000 The above fee includes all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges, 24 hr free internet facility. The participants will be provided with accommodation on payment basis.</p>

The Faculty



Vivek Chitale is an internationally recognized oil & gas E&P professional, settled with family at Houston USA since 1997. After completing his M.Sc. in geology at the University of Pune (1980) Vivek pursued advanced studies at Texas Tech University USA and received PhD in geology (1986). He then returned to India and joined Oil India Ltd's Rajasthan Exploration Project. Vivek has worked as geologist, petrophysicist and in various Leadership roles in the E&P industry for well-known organizations such as Oil India, Halliburton, Enron Oil & Gas, Kuwait Oil, and BP. He has also published several papers on the global forums of SPWLA, AAPG and SPE that show how the integration of core analysis with modern e-log technology helps find solutions to the challenges involved in subsurface reservoir characterization. He has served AAPG, SPWLA and SPE globally in the roles of Distinguished and/or Invited Speaker.

Course Co-ordinator

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