

Proposed Session Themes

GEO India 2010

I. Petroleum Systems and Basin Analysis

- Basin scale Play Evaluation and Risk Assessment
- New and Emerging Exploration Technologies
- New Perspective on the early evolution of Deep water systems in Indian Subcontinent
- Geochemical exploration for oil and Gas- Methods and Case Studies
- Role of Microbes in Petroleum Systems
- Source rocks in deep water depositional systems
- Biogenic Gas Systems- Indian Analogues
- Paleogeographic and paleoclimatic studies in source rock evaluation
- Modeling petroleum Charges in complex basins

II. Deep Water Slopes and Basin Systems

- Process related architectural changes in deep water deposits
- Characterisation of seals in deep water systems
- Carbonate-dominated deep water depositional systems
- Understanding reservoir connectivity in deep water systems
- Stratigraphic architecture and evolution of play fairways
- Shelf-Slope dynamics and controls on the evolution of siliciclastic depositional systems

III. Structural Entrapment and Hydrocarbon Plays

- Advances in structural geology applied to petroleum exploration
- Structure and sedimentology associated with mobile substrates
- New Insights in allochthonous Salt and Shale Tectonics
- Tectonics of Active and Passive Petroliferous Margins
- Fault Seal and transmissibility in petroleum entrapment
- Integration of structural geology and diagenesis
- Impact of fractures and stress on hydraulic behavior of deformed reservoirs
- Structural modeling and balancing in complex geological set ups
- Exploration studies in Himalayan-Arakan Yoma and other mountain chains

IV. Sedimentological Processes and Stratigraphic Models

Sedimentological Processes in Growth Fault regimes

Advances in Siliciclastic sequence stratigraphy and reservoir architecture

Biostratigraphy in resolving E&P problems – Case studies

Physical and numerical modeling of sedimentological processes and Stratigraphic architecture

Advances in chronostratigraphic and paleoecological analysis- Case studies

Prediction of Hydrocarbon Play elements by Earth System Analysis

Carbonate Facies models and sequence Stratigraphy

Mixed Carbonate and siliciclastic margins

Facies and production issues in tight gas sand reservoirs

Advances in non-marine, shallow marine, and shelf siliciclastic facies models

High resolution chronostratigraphic calibration and application to basin analysis, tectonics and paleoclimate

Paleoclimatic Changes- Impact on Stratigraphic interpretation and modern climate changes

V. Reservoir Modeling and Characterisation

Techniques of reservoir characterization and modeling

Advances quantitative stratigraphy and model construction-outcrop to subsurface

EOR and Bypassed reservoirs-Advances and Case studies

Carbonate-Clastic diagenesis and impact on reservoir quality

New trends in Carbonate reservoir Characterisation

High resolution seismic imaging applied to sequence Stratigraphy

Development strategies and associated production problems in thin multilayered reservoirs

Extracting more oil from aging fields – Advances and Case studies

Advances in logging tools – application in reservoir characterization and flow behavior studies

Exploration and development of heavy oil and other unconventional accumulations

VI. New and Expanded Plays in Indian Subcontinents and Global Basins

Regional E&P of Indian Subcontinent in Plate Tectonics context

Regional E&P studies in east and west coast basins of India

Exploration in Foreland Basins and associated thrust belts

Giant Discoveries of 21st Century

Subsalt Plays of the world

Regional E&P of Africa and Middle East

Regional E&P of Southeast Asia, China, and Australia

VII. Environmental Concerns in Petroleum Exploration and Exploitation

Innovative methods for management of produced water and gases

Karst hydrology and impact of production activities on ground water systems

Application of near surface and borehole geophysics to site characterization and Remediation

Climate Change Impact on petroleum facilities- planning for sustained energy flow

Empirical modeling and data sets comparing Icehouse vs. Green house worlds

Global climatic Changes –Past and Present

VIII. Alternate Energy Developments in 21st Century

Geology of Gas Hydrate Systems – Exploration and Exploitation issues

Future generation and geological Carbon sequestration-Success and Future Challenges

Geothermal and other energy systems and exploitation

Economics of Alternate Energy

IX. New Technology Leveraging in E&P Business

Changing Human-Machine interface in G&G studies

Advances in visualization and interpretation technology for improved E&P solutions

Seismic imaging and image processing advances in E&P

New Logging and Well Completion tools and techniques

New trends in Data management and mining

Advances in reservoir definition and hydrodynamics

Advances in Non-Seismic methods in E&P

X. Frontier Exploration Areas in Indian Subcontinent

Deep waters and Super Deep waters in Indian Offshore

Himalayan and Assam-Arakan Thrust fold Belts

Cambrian and Pre-Cambrian Exploration

Mesozoics and Sub Trappean Exploration

Subtle Traps and Stratigraphic Exploration

XI. E&P Business and Regulatory Policy in India

PEL-to-NELP- to -OALP regime in Indian E&P Scenario

Emergence of private-public partnership in E&P business in India

Geo-politics and the Energy Industry
Sustaining In-flow of E&P workforce to meet future challenges
Attrition of workforce- Issues and possible solutions

XII. Hydrocarbon from Shale and Coal

Oil Shale Exploration and exploration- Issues and Challenges
Basin Centered Gas – Exploration Case studies
Coal-Bed Methane exploration and Exploitation
Underground Coal gasification – Advances and future potential
CTL and GTL technologies- Status and future trends

XIII. Gondwana Basins and Exploration activities therein

Paleogeographic reconstruction of Gondwana basins
Stratigraphic architecture , evolution Geochemical studies in onshore and offshore

XIV. Geospatial Technology and Astrogeology

Advances and application of GIS and remote sensing to petroleum exploration and production
GIS and remote sensing in geo-hazard mapping and environmental assessment

XV. Student Presentation