



ONGC
ENERGY: Now AND Next

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SPE Workshop on Technology-Driven Production Enhancement :

Unlocking More from India's Mature Fields



Date: 22-23 May 2026 | **Venue:** MCA Club, BKC Mumbai

About the Workshop

Strengthening Marginal and Mature Field Ecosystems: Technology, Innovation, and Collaboration

India's mature oil and gas fields continue to play a critical role in national energy security. However, declining production, increasing water cut, aging infrastructure, and evolving economic and regulatory constraints demand a technology driven rethinking of field development and operations.

This two-day technical workshop brings together operators, service providers, technology developers, regulators, and academia to examine practical, scalable, and future-ready solutions for enhancing production from mature assets.

The program emphasizes digital transformation, advanced well and reservoir engineering, sustainability, and policy enablers for accelerated monetization.



EXPLORE INNOVATIVE TECHNOLOGIES

Discover cutting-edge advancements in drilling, enhanced oil recovery, and digital solutions to optimise field performance.



OPTIMISE COSTS AND EFFICIENCY

Gain valuable insights into cost-effective strategies that improve operational efficiency whilst upholding Asset Integrity and HSE.



LEARN FROM REAL-WORLD SUCCESS

Explore case studies of successful marginal field projects, offering practical insights and best practices for achieving positive outcomes.



EMBRACE SUSTAINABILITY

Learn how to integrate sustainable practices, reduce carbon emissions, and implement renewable energy solutions in marginal field operations.



NAVIGATE REGULATORY CHALLENGES

Stay informed on evolving regulations and risk mitigation approaches to ensure compliance and operational success.



Who should attend?

-  ASSET DEVELOPMENT
-  ACADEMIC AND RESEARCH
-  DECOMMISSIONING AND ABANDONMENT
-  FACILITIES AND PROCESS
-  FIELD DEVELOPMENT PLANNING
-  GEOLOGY AND GEOPHYSICS
-  INTEGRATED OPERATIONS
-  OILFIELD SERVICES



-  PROJECT MANAGEMENT
-  PRODUCTION ENGINEERING
-  PRODUCTION SURVEILLANCE
RESERVOIR ENGINEERING
-  RESERVOIR MANAGEMENT
-  STRATEGIC PLANNING
-  TECHNO-COMMERCIAL
-  TECHNOLOGY AND INNOVATIONS
-  VENTURE CAPITAL
-  WELLS INTEGRITY

Key topics to be covered

Session 1: Embedding Digital Technologies in Oil & Gas

Now and the Future Use of AI, IoT, blockchain, 5G, automation, and data analytics to improve safety, efficiency, predictive operations, and sustainability in oil & gas.

Session 2: Drilling & Completions Techno-Economics – Unlocking Maximum Value

Optimizing drilling and completion of operations through cost analysis, efficient well design, automation, real-time monitoring, and improved operational performance.

Session 3: Latest Advancements in Well Engineering and Completions

Modern technologies such as RSS, MWD, LWD, intelligent completions, hydraulic fracturing, and sand control for improved reservoir access and production.

Session 4: Sustainable and Responsible Technologies for Mature Oil & Gas Field

Application of EOR, CCS, digital monitoring, water recycling, and energy-efficient systems to maximize recovery while reducing environmental impact.

Session 5: Advanced EOR Technologies Transforming Mature Reservoirs

Thermal, gas injection, and chemical EOR methods combined with digital reservoir monitoring to enhance hydrocarbon recovery from aging reservoirs.

Session 6: Role of AI and ML in Manufacturing

Use of AI/ML for predictive maintenance, quality control, automation, defect detection, and production optimization in manufacturing operations.

Session 7: Production & Pipeline Operations

Now and Future Emerging technologies, automation, digital monitoring, and smart pipeline systems for safer, efficient, and reliable production operations.

Session 8: Reservoir Dynamics

Latest Technologies in Subsurface Data Acquisition Advanced MWD, LWD, borehole seismic, fiber-optic sensing, and AI-driven reservoir simulation for better reservoir characterization and production forecasting.

Session 9: Future-ready Facilities Design

Smart, Lean and Sustainable Development of digitalized, energy-efficient, low-emission facilities using AI, IoT, digital twins, and sustainable operational practices.

Session 10: Revolutionizing Logistics

Creating an Intelligent Ecosystem, Integration of AI, IoT, automation, robotics, and data analytics to improve supply chain visibility, warehouse efficiency, and transportation management.



Inaugural Session

Date & Time: 22nd May 2026, 09:30 -10:30

Venue: Courtyard Hall, MCA

Safety Briefing and Durga Vandana

Welcome Address:

- **Pankaj Kumar**, Director (P), ONGC

Keynote Address:

- **Dr Neeraj Mittal**, Secretary, MoPNG (Virtual)
- **Ranjit Rath**, CMD, OIL
- **Vinod Seshan**, Joint Secretary (E), MoPNG
- **OP Sinha**, Director(E), ONGC
- **Saloma Yomdo**, Director(E&D), OIL



Panel Session: Addressing Key Challenges in Mature Oil & Gas Field

Date & Time: 22nd May 2026, 11:00 - 12:30

Venue: Courtyard Hall, MCA

- **T K Sengupta**, Former Director (Offshore), ONGC
- **Vikas**, MD, BRPL
- **Lalit Aggarwal** – Managing Director, South Asia, SLB
- **Emin Babazade**, BP
- **Barnaby Philips**, RIL

Moderators: Kaustav Mukherjee, Oliver Wyman



Technical Session

Session 1: Embedding Digital Technologies in Oil & Gas – Now and the Future

Chair: Chandra Sekhar Davuluri, ONGC and Co-Chair: Manav Kanwar, SKO Energy Solution

Date & Time: 22nd May 2026, 13:30-14:30

Venue: Courtyard Hall, MCA

1. A physics-guided AI agent for lifecycle-based ESP selection and performance analysis: A case study by **Aman Sharma- ONGC**.
2. Digitalization and low carbon optimization of mature fields - A case study of Bhaskar Field by **Rakesh Godawat- Sun Petrochemicals Pvt Ltd**.
3. A step-change in drilling – driving performance, increasing drilling efficiency, safety, and sustainability through digital workflows and real-time analytics by **Chandan Majumdar & Mayank Jain- SLB**
4. Enabling Survey-independent Digital Well Modeling: A physics-guided FBHP Estimation Framework for Scalable Offshore Production Optimization by **Vaibhav Deshpande & Ashwini Sankliya- SLB**.

Session 2: Drilling & Completions Techno-Economics - Unlocking Maximum Value

Chair: Amit Desai, ONGC and Co-Chair: Bhimesh Vudathu, RIL

Date & Time: 22nd May 2026, 14:30-15:30

Venue: Courtyard Hall, MCA

1. Design of novel biodegradable enzyme-based fluids for mitigation of drilling damage in oil and gas wells drilled with water-based and oil-based fluids, using predictive performance models, by **Debayan Ghosh- Epygen Labs FZ LLC**.
2. Derrick floor to digital drilling: Five decades of transformation in the offshore industry by **Nidhish Kumar and Akshay Manjramkar- Jindal Drilling and Industries Ltd**.
3. Light well intervention for mature assets by **Abdul Kader- Baker Hughes**.
4. A risk-based framework for compaction joint deployment in sand control lower completions by **Dipesh Nihalani- BP TSI**.

Session 3: Latest Advancements in Well Engineering & Completion

Chair: Ajay Ratan, ONGC and Co-Chair: Arpit Singhal, Halliburton

Date & Time: 22nd May 2026, 15:45-17:15

Venue: Courtyard Hall, MCA

1. Digital Intelligent Artificial Lift (DIAL) System Deployment in Mature Offshore Wells: A case study from Mumbai High Field by **Amit Mishra- ONGC**.

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2. Acidizing on Wireline Yielding a Sustained Production Increase by **Dylan Lee Pennington- StimStixx Technologies**.
 3. SuperSonic Pump (SSP) Technology by **Shanly George- LOT Ingenieria Tecnologia Petrolera S.A. (LOTSAs)**.
 4. Value creation in Mature Gas-lifted Assets, **Arjun Guglani- Weather ford**.
 5. Applicability of Fishbone Stimulation in tight vertical permeability reservoirs for improving recovery by **Izhaan Chogule- BP TSI**.
 6. Crown Completions™ Software, a digitized well design platform by **Hrishikesh Bagade- Wellkin Energy Private Limited**.

Session 4: Sustainable and Responsible Technologies for Decarbonization

Chair: Reghu P, ARP108 and Co-Chair: Ketan Pednekar, Scottish Development International

Date & Time: 22nd May 2026, 17:15-18:15

Venue: Courtyard Hall, MCA

1. Feasibility study of carbon storage in Cambay Shale through Thermodynamic analyses by **Keka Ojha- IIT ISM Dhanbad**.
2. Carbon Capture and Storage (CCS): Infrastructure and design considerations for CO₂ Pipelines by **Ayushi Gupta- ONGC**.
3. Enhancing CO₂ sequestration forecasting in deep saline aquifers: An optimized machine learning and deep learning approach with CMG simulation data by **Sreenivasan B & Archana Balikram- IIT ISM Dhanbad**.
4. Towards Sustainability: Innovative Solutions for Gas Turbines by **Brett Scurfield- Solar Turbine**.

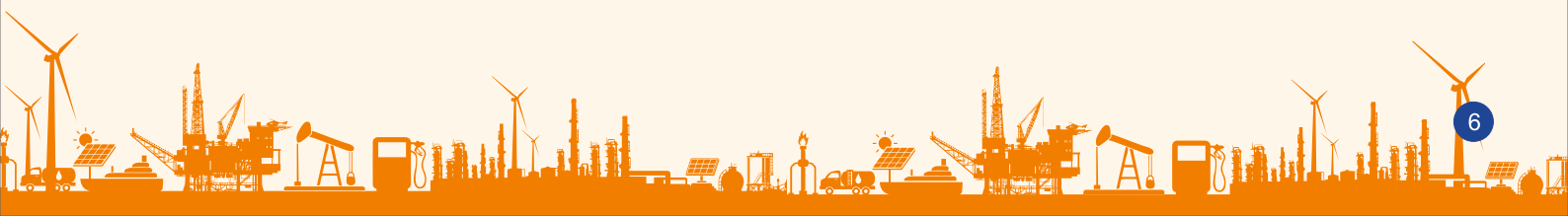
Session 5: Advanced EOR Technologies Transforming Mature Reservoirs

Chair: S Roychaudhury, Antelopus Selan Energy Ltd and Co-Chair: Deepak Agarwal, SLB

Date & Time: 23rd May 2026, 09:30-10:30

Venue: Courtyard Hall, MCA

1. Enhanced Oil Recovery in Matured Fields - Case study of Baola and Modhera Fields by **Rakesh Godawat- Sun Petrochemicals Pvt Ltd**.
2. Polymer Flooding and Conformance Control: Expanding Chemical EOR Solutions in Carbonate Reservoirs by **Shital Khot- SNF Flopam India Pvt Ltd**.
3. Integrated Reservoir Surveillance and Simulation- Driven Optimization of polymer flooding for enhanced Recovery in a mature heavy oil field, Western Onshore India by **Pavan Beerugonda - ONGC**.
4. EOR in Mature fields of India: A Panacea or Placebo by **Sujit Mitra- ONGC**.



Session 6: Role of AI and ML in Operations and Manufacturing

Chair: NK Mitra, SPE and Co-Chair: Keka Ojha, ONGC

Date & Time: 23rd May 2026, 09:30-10:30

Venue: Boundary Hall. MCA

1. Physics-informed machine learning framework for Predictive Pipeline Corrosion Monitoring and Digital Integrity Visualization by **Neeraj Kumar- ONGC**.
2. Spatio-Temporal Machine Learning workflow for Production Forecasting and Reservoir Interaction Analysis in a Mature Offshore Gas Reservoir by **Adrija Chakraborty, Shlok Rai, Santdeep Kumar, Sunil Parmar, Arun Kumar Singh- ONGC**.
3. A Cost-sensitive Machine Learning model for reducing budget overrun in well construction projects by **Jinu Jose- BP**.
4. Enhanced Rov-assisted underwater inspection for structural integrity assessment of Offshore Structures by **Johns T Mathai, Kannappa Palaniappan P, Anantha Krishnan M M, Asha Thomas- IROV Technologies Private Limited**.

Session 7: Production & Pipeline Operations - Now and Future

Chair: Ravi Shankar, ONGC and Co-Chair: Deepak Bhatnagar, ONGC

Date & Time: 23rd May 2026, 10:45-12:00

Venue: Courtyard Hall, MCA

1. Modular Multiphase Pump & Casing Gas Compression Technology by **Shanly George- Compact Compression Inc.**
2. Asset Integrity Digitalization and integrating with CMMS at FPSO by **Manish N Joshi- Shapoorji Pallonji Bumi Armada**.
3. Successful Revival - Long Shut-in Offshore Well by **Rigless CD-ESP: A case study of Well R-12A#5** by **Sanjeeb Goswami- ONGC**.
4. Revitalizing Mature Assets: Advanced candidate selection and refracture design for production uplift in Sadra Field by **Shashank Narayan- SLB**.
5. Pratibimb: India's First Digital twin for an ONGC Asset - Delivering 350% ROI through real-time production optimization by **Anup Sarraf- ONGC**.

Session 8: Reservoir Dynamics: Latest Technologies in Sub-surface Data Acquisition

Chair: NK Verma, Ex ONGC and Co-Chair: Angeni Jayawickramarajah, bp

Date & Time: 23rd May 2026, 10:45-12:00

Venue: Boundary Hall MCA



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1. A case study on Boundary Extension Evaluation using Integrated Offset-Well Data and a Dynamic Opportunity Index in a Mature Onshore Basin by **Anushka Nischal- Oilmax Energy.**
 2. New insights in a mature field: Application of an integrated subsurface toolkit to unlock the future of Mumbai High Field, Western Offshore Basin, India by **Peter Cook- BP.**
 3. VisiTrak Ultra HD Service: Increasing production potential through far-field reservoir architecture mapping by **Kanad Kulkarni- Baker Hughes.**
 4. Production enhancement through Novel Rig-less Intervention Strategy and simultaneous exploration by **Vivek Garg- ONGC.**
 5. Rejuvenation of a mature offshore field using innovative oil migration modeling through simulation and enhancing production through infill drilling and shallow perforations by **Mahadev Kaulaskar- ONGC.**

Session 9: Future-ready Facilities Design: Smart, Lean and Sustainable

Chair: Subhojit Bose, ONGC and Co-Chair: A Sen, Mc Dermott

Date & Time: 23rd May 2026, 12:00-13:00

Venue: Courtyard Hall, MCA

1. AI-Enabled Intelligent Trunkline Dispatch Optimization for Future-Ready Surface Production Facilities by **Avi Jakkulwar- ONGC**
2. Smart, Lean and Sustainable Platform Design & Implementation: A Case Study by **Ashish Shukla- L&T**
3. Standardisation of well platform by **Amitabh Nag- Mc Dermott**
4. Conductor Supported Platforms for Western Offshore Basin by **Himanshu Gupta- bp**

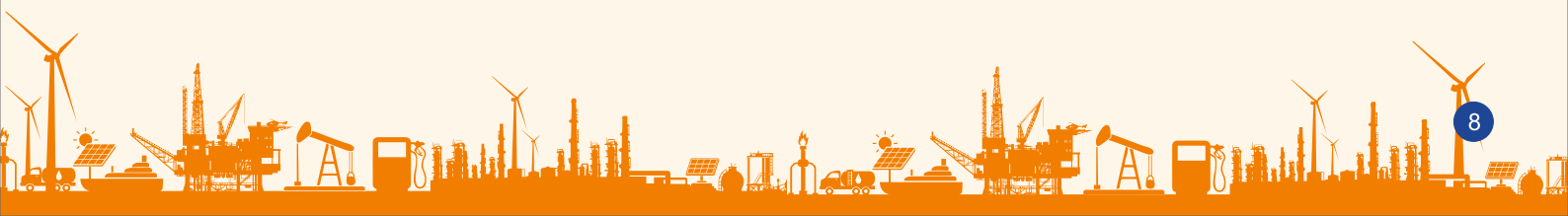
Session 10: Revolutionising Logistics: Creating an Intelligent Ecosystem

Chair: MB Pillai, ONGC and Co-Chair: Pramod Sapra, Shapoorji Pallonji Bumi Armada

Date & Time: 23rd May 2026, 12:00-13:00

Venue: Boundary Hall, MCA

1. Optimization-driven Offshore Logistics Planning: Improving vessel utilization and operational efficiency in ONGC Offshore Operations by **Animesh Kund- ONGC.**
2. Drone usage in Western Offshore for logistics by **Shyam Randive- Lizmontagens, India.**
3. Integrated sand control and water management in mature fields: Open Hole Gravel Pack with EquiFlow® Autonomous Inflow Control Device (AICD) Technology by **Halliburton.**
4. Short radius drilling technology for mature field re-entry: Articulated BHA enables precise injector well placement by **Halliburton.**



Poster Session

S.No.	Category	Full Name	Affiliation Organization	Abstract Title
1	Session 1: Embedding Digital Technologies in Oil & Gas – Now and the Future	Mudavath Priyatham Naik	ONGC	Machine Learning-Based Refinery Quality prediction & Profit Optimization
2		Guru Charan Sattiraju	SLB	ESP Power Analyzer
1	Session 2: Drilling & Completions Techno- Economics - Unlocking Maximum Value	Shriya Srivastava	MIT-WPU	Experimental Investigation of Agro-Based Drilling Fluid Additives for Fluid Loss Control in Water-Based Drilling Fluids
2		Priyesh Shailesh Kulkarni	MIT World Peace University, Pune	Hybrid Physics–AI Residual Learning Framework for HPHT-Aware Rheology Modelling and Stability Assessment of Non-Damaging Drilling Fluids
1	Session 4: Sustainable and Responsible Technologies for Decarbonization	Vinod Kumar Madem	SPE Geothermal Technical Section	Repurposing India's Mature Hydrocarbon Assets for Geothermal Energy - An Integrated Geological- Engineering Technological Framework
1	Session 5: Advanced EOR Technologies Transforming Mature Reservoirs	Mr. Shital Khot	SNF Flopam India Pvt Ltd.	Revitalizing Mature Oilfields With Polymer Flooding: Insights And Success Factors From Indian Operators
2		Muhannad Khalid Alsiddig Ali	Indian Institute of Technology (Indian School of Mines), Dhanbad	Numerical Investigation of Injection Well Strategies for Enhancing Thermal Recovery in Repurposed Mature Oil Reservoir Using CMG STARS
3		Anshuman Goswami	MIT WPU	Advanced EOR approaches for mature reservoir
1	Session 8: Reservoir Dynamics: Latest Technologies in Sub-surface Data Acquisition	Mahesh Narendra Uke	Nowrosjee Wadia College, Pune	Reservoir Rock characterization of Jhuran shale

Workshop on “**Streamline Flooding for Infill Drilling Model for Better Recovery**” conducted by Sh Rajender Marathe, Ex ED MH Asset/IRS, ONGC

Chair: Bhaskar C Nettem, ONGC and B Ravishankar, ONGC

Venue : Courtyard Hall, MCA

Time 23rd May 14:30 hrs to 17:00 hrs

This workshop will focus on key aspects of waterflooding and reservoir management, including:

- Importance of waterflooding in improving recovery from mature brown fields
- Streamline modelling and flood front visualization
- Finite difference approaches for heterogeneous reservoirs
- Pollock algorithm applications
- Practical demonstration of Python-based waterflooding models for infill drilling



Closing Session

Squeezing the Stone: India's Mature Field Frontier

Date & Time: 23rd May 2026, 14:00-15:00

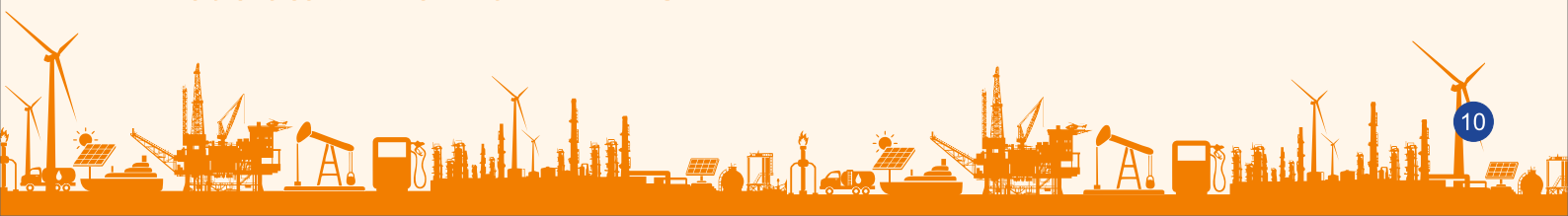
Venue: Courtyard Hall, MCA

Speaker

- **Neeraj Lal, ED-AM B&S Asset, ONGC**
- **Rajiv Nischal, SPE**
- **Bhaskar C Nettem, ED-AM MH Asset, ONGC**
- **Deepak Agarwal, SLB**



Moderator: Vivek Rahi- KPMG



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Exhibitor



REGISTRATION

SPE Member	INR 15000/- Inclusive of GST
Non-SPE Member	INR 20000/- Inclusive of GST
Steamline Flooding for Infill Drilling Model for Better Recovery Workshop	INR 2000/- Inclusive of GST

Steering Committee



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Director (P) ONGC



Niladri K Mitra
SPE Chairperson



Tapas K Sengupta,
Former Director (Offshore), ONGC



Ravi Shankar
ED Chief HRS Mumbai, ONGC



Subhojit Bose
ED-Chief P&DD, ONGC



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Bhaskar C Nettem
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Reghu Padmanabha
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Mumbai Section



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