

6-7 NOVEMBER 2024

JW MARIOTT HOTEL

RIO DE JANEIRO, BRAZIL



Digital Transformation

Digital Transformation represents a vast and complex landscape with numerous opportunities for the Oil and Gas industry, but also pitfalls. While there seems to be a consensus that Digital Transformation is the path to achieve the industry's goals and ambitions, the methods and technologies applied are up for debate.

Across the industry, digital adoption is everywhere as operators, service providers, contractors, equipment suppliers, regulators, and software and hardware vendors are gradually embracing the recent technologies. Technologies such as various forms of artificial intelligence (AI), cloud, industrial internet of things (IIoT), edge, drones, robotics, automation, and augmented reality are all being evaluated and deployed with the end goal of improving operational performance and meeting the increasingly strict expectations for sustainability.

This SPE workshop aims to explore several digital transformation opportunities and technologies that can benefit Brazilian E&P operations, through highlighting cases of technology adoption, development, and uptake, both in terms of successes and failures.



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Society of Petroleum Engineers

Technical Agenda (as of 15 October, 2024)

WEDNESDAY, 6 NOVEMBER

0730-0825

**Registration Check-In
Continental Breakfast**

0825-0830

Chairperson's Welcome and Introduction

0830-1000

Session 1: Exploration and Production Development (Using Data to Improve Decision Making)

Chairs:

Augusto Borella, Intelie
Carolina Barros, Kongsberg Digital
Giovanna Carneiro, SLB

Stepping into the Future of Oil & Gas Production Surveillance: The Libra 4.0 Digi-tal Twin Project

Jose Sergio de Araujo Cavalcante Filho, Petrobras

Optimizing Capex/Opex Strategies Using Data Physics Models: A Comprehensive Approach to Well Conversions, Reactivations, Injection Distribution and In-Fill Drilling

Carlos Calad, Tachys

Unlocking the Power of Historical Drilling Data Using GenAI Approach

Ahmad Hussein, SLB

1000-1030

Coffee Break

1030-1230

Session 2: Digitally Enabled Organizational Transformation - The Role of People, Process and Organizational Change in Delivering Digital Transformation

Chairs:

Tony Edwards, Stepchange Global Consultancy Ltd
Diogo Pinto, Equinor

Benchmarking of Digital Transformation in 80+ Operational Asset - What Have We Learned About the Key to Successful DT Implementation

Tony Edwards, Stepchange Global

Unlocking Digital Potential: Aligning People, Technology, Process, and Strategy

Poliana Texeira Barbosa, Petrobras

Leading Talents in the New Digital Era

Maria Teresa Cardenas and Nara Padilha Tsuboi, SLB

1200-1330

Lunch

1330-1500

Session 3: Asset (Equipment) Performance Management (APM) applied to Production and Facility Operations

Chairs:

Henrik Sture, SLB
Leonardo Machado, Shape Digital

Transforming Operations through Advanced Analytics: Búzios Integrated Operations Center - IOC Approach on Asset Performance Management

Diogo Bettoni, Petrobras

Adopting new Technologies for Gas Pipeline Asset Management

Conrad Fonseca, TAG (Transportadora Associada de Gás S.A.)

Enhancing plant performance utilizing GenAI and Modular Asset Performance Solutions

Lina Paola Charry Tovar, SLB

1500-1530

Coffee Break

1530-1700

Session 4: From Proof of Concepts (POCs) to Full Scale Deployment of Digital Solutions

Chairs:

Carolina Barros, Kongsberg Digital
Priscila Pestana, SLB

Leveraging Data Plataforms to Escape the POC Trap

Haroldo Teixeira, Petrobras

Scalability of Concepts to Usable Products - Real Case Experience

Francesco Giorgetti, SierraCol

Rapid Scale-Up of Workflow Automation Concepts Underpinned by a Knowledge Graph Digital Twin: Four Examples Implemented in Offshore Facilities

Joel Chacon, Eigen

Hybrid Models to Accelerate Field Development Planning - How Hybrid Models Provided 10X Acceleration in Well Placement Incorporate Multiple Realizations

Ashwin Venkatraman, Resermine Inc

1700-1800

Networking Reception

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THURSDAY, 7 NOVEMBER

0730-0830

Continental Breakfast

0830-1000

Session 5: Key New Emerging Technologies and Case Studies

Chairs:

Luiz Fernando Guedes dos Santos, Shell
Augusto Borella, Intelie
Robinson Luiz Souza Garcia, Petrobras
Marian Teresa Labrador Moreno, Halliburton

AI Powering Digital Transformation in Asset Integrity

Paulo Martins,
Abyss Solutions

Real-Time Well Performance Monitoring and Reservoir Intelligence: The Potential of Powerline Completion String in Digital Oil Field Applications

Abdolnabi Hashemi,
TDE Group

Improving Efficiency in Offshore Asset Inspection: Automated Integrity Analysis Using Machine Learning and Computer Vision

Maikon Bressani and Michelle Soares Pereira Facina,
Petrobras

1000-1030

Coffee Break

1030-1200

Session 6: Energy Transition: CCUS, Geothermal and Others

Chairs:

Giovanna Carneiro, SLB
Carlos Calad, Tachyus

Digital Twin of Geothermal Assets - An Open-Source Approach for the Geothermal Sector

Pejman Shoeibi Omrani, TNO

Digital CCUS - Managing Risk From Planning to Operations

Ines Cecilio, SLB

Using AI and System Optimization to Accelerate Conceptualization and Reduce CO2 Emissions in Offshore Projects

Rafael Castro,
Deep Seed Solutions

Data Analytics Applications in Wind Farms

Pedro Paiva,
Rio Energy

1200-1330

Lunch

1330-1500

Session 7: Digital Oil Field Applications in Production Performance and Remote Operations

Chairs:

Joao Tadeu Vidal de Sousa, SIDI
Tony Edwards, Stepchange Global Consultancy Ltd

Application of Data and Information Technologies to Enable, Manage and Operate by Exception Processes that Enhance Remote Operations in High Well Count Operational Assets

Fred Clarke,
Stepchange Global

Digital Twin of Production Systems: Asset Management and Optimization

Carolina Barreto,
ESSS

Autonomous Robotics at Scale

Henrik Sture / TBD,
SLB / Rockwell
Automation

1500-1530

Coffee Break

1530-1700

Session 8: Mature Fields

Chairs:

Carlos Calad, Tachyus
Francesco Giorgetti, Sierracol

A Physics Embedded ML Workflow for Production Allocation in Multi-layered Waterflood

Juan Valencia,
Tachyus and Pan
American

Pillars of Success for Implementing Digital Transformation Projects in Mature Fields

Fabiola Forza,
Seacrest Petroleo

Scaling Digital Solutions in Brownfield assets for Improved Recovery and Maintenance

Alex Chambers,
Cognite

Autonomous Waterflood Management: AI-Driven Innovations for Operational Excellence and Sustainability

Shripad Biniwale, SLB



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SPE recognizes the legitimate serving of alcoholic beverages in the process of conducting business and social activities. We also recognize that the use and consumption of alcohol carries with it the requirement for all attendees to consume those beverages responsibly.

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WORKSHOP FORMAT

Workshops maximize the exchange of ideas among attendees and presenters through brief technical presentations followed by extended Q&A periods. Focused topics attract an informed audience eager to discuss issues critical to advancing both technology and best practices.

Many of the presentations are in the form of case studies, highlighting engineering achievements and lessons learned. In order to stimulate frank discussion, no proceedings are published and members of the press are not invited to attend.

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