

Oil & Gas Automation & Digitalization Conference 2022

Opportunities to Boost Profitability and Strategies to Maximize Efficiencies in Oil and Gas Production

AGENDA 2022

Day 1

Monday, 14 November 2022

US Eastern Time Zone (ET)

9:45 **Welcome Speech**

10:00 **Decarbonizing the Energy Sector: Role of Emerging technologies and Green fuels**

- The path to decarbonization and role of green fuels
- Role of technology in guaranteeing the origin of green fuels
- Use case: Blockchain-based fuel assurance platform

Dr. Mohsen Khorasany | TYMLEZ



10:30 **Building a Digital-First Culture & Mindset**

- Definition of terms & components of Digital-first Culture & mindset
- How to build a Digital-First Culture & mindset
- Why is it Important/Benefits

Ismail Oyewole | Prudent Energy



11:00 **Leveraging IoTdata in the Cloud with IoBase**

- Feedback from Terega digital transformation
- Securing our industrial sites while using public cloud capabilities
- Deliver faster with an agile OT/IT infrastructure

Thomas Delquie | Terega

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11:30 **mioty - the most accessible, robust and efficient IoT connectivity solution**

- By now everybody does see the sheer unlimited value and optimization opportunities IoT & IIoT has to offer.
- Even though the digitalization is already taking place, we are only scratching the surface. A gigantic growth of IoT connections is forecasted and still to come!
- Hence in the near future Billions of devices will send data in parallel.....!
- We are ready for it...BUT is our IoT infrastructure ready for it?

Uwe Scherf | WIKA

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12:00 **Networking Break**

12:30 **Discoveries in delivering the Industrial App Store**

- Making Digitalisation deliver - Can digitalisation can reduce cost and improve income, or is it a just a new cost centre
- Requirements of an Energy Mix - Physical and digital
- Intellectual property - how it helps and hinders progress.

Steve Aitken | Intelligent Plant



13:00 **Monitoring Asset Health with Kt-Charts and SVDD**

- Asset performance analytics based on Industrial Internet of Things technologies
- High-frequency, real-time data from physical and soft sensors
- Implement exploratory data analysis, PCA, and Kt-charts and SVDD and Explainable AI to optimize asset health

Keith Holdaway | SAS



13:30 **Exploring the leading private cellular-enabled use cases that can unlock value for upstream, midstream and downstream digital transformation initiatives**

- Understand that the future of oil and gas is to be digitally native and data-driven—relentlessly looking for ways to improve across the entire lifecycle.
- Learn about the key upstream, midstream and downstream digitalization use cases, enabled by private cellular networks, that are driving operational efficiency, safety and environmental excellence.
- Explore key considerations for identifying your starting point—kinds of deployments that make the most sense, dealing with the learning curve associated with deploying and managing private cellular networks, etc.

Viren Parikh | Ericsson

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14:00 **Digital Business Model Innovation in Oil & Gas**

- Digital transformation is becoming the norm of how we do business.
- However we are focused primarily on operational improvement and not business model innovation
- A shift to business model innovation from operational improvements will lead in a significant increase in

Jason Gislason | Chevron Phillips Chemical Company



14:30 **Is Wireless Vibration Technology Key to Automating Condition Monitoring in Oil & Gas?**

- What are the perceived benefits of automating vibration data collection and diagnostics?
- What are the sensor considerations for typical oil & gas rotating equipment and is MEMS technology fit for purpose?
- What are the challenges and potential drawbacks compared with traditional approaches?

Matthew Moore | Petrofac



15:00 **Strategies to Increase Awareness & Adoption of Blockchain-based Solutions at you company**

- Causes of Organizational Inertia
- Strategies to overcome it
- Lessons learned from Pilots
- Getting to scale

Raj Rapaka | ExxonMobil



15:30 **End of Day 1**

Day 2

Tuesday, 15 November 2022

US Eastern Time (ET)

9:30 Revolutionizing the Energy Sector with a Unique Satellite Network Solution for Smarter Oilfields

- Hydrocarbons have pipelines, what does data have? Digitalization and automation challenges based on today's communication solutions.
- Global Private Network in the sky, fit for remote real-time operations (35x closer than GEO, 30% faster than fiber) to improve digitalization strategies.
- Why does it matter? Some examples of applications.

Cristina Luna | Rivada Space Networks GmbH



10:00 Applying a Zero Trust Framework to Securing the Oil and Gas Industry

- Digital Transformation is unlocking business value but is also putting once "air gapped" critical OT assets at risk
- Complexity of IT in Oil and Gas companies makes OT systems vulnerable for increased cyber attacks, and poses challenges for secure remote access and third-party vendor management
- How to implement a Zero Trust framework to enable more security, efficiency, and scalability in Oil and Gas OT environments

Bill Moore | XONA
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10:30 Boosting Digitalization in Hydrocarbon Industry

- Introduction - Digital Transformation in Hydrocarbon Industry
- Digital Technologies Deployment - The easy and the challenging
- Case Studies - Features and Results
- Trends in Automation?

Fawaz ALSahan | Saudi Arabian Oil



11:00 The Value of 'Visual Intelligence' for Capital Project Delivery

- Unlocking the true power of drone captured data
- Remote construction monitoring for a Post-COVID, Net-Zero industry
- Collaborative project delivery through the reduction of data silos
- Data Democratization – empowering the project team

Barry McGinn | Cyberhawk
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11:30 Unlocking Efficiency of Offshore Drilling Operations by Digitalizing Information Workflow

- Digitalizing the information flow between the Oil Companies well plan information and the drilling contractor operating offshore rig brings significant value. Digital real-time drilling program information benefits to all the involved parties in a drilling operations, including Drilling Contractor, Operator, and Service Companies, both, at the drilling site and remote-control center, by directly connecting front-line operation teams with the required instructions to drive efficient drilling operations.
- Digitalizing of the information flow significantly improves situational awareness, coordination, preparedness, communication, and transparency and thereby providing more efficient and consistent drilling operations.
- Presentation will be based on several case studies of offshore operations with Maersk Drilling, Aker BP and Equinor.

Esben Thorup | Horizon56



12:00 Networking Break

12:30 Becoming Smarter with Our Health and Safety Data

- Analytics Maturity model (where we are, where we want to get to i.e. greatly improve our predictive analytics capabilities, and how we are going about getting there)

Billy Archbold | Wood Group PLC



13:00 Why Digital Twins

- Value along the Asset Lifecycle
- Leveraging new ways of working
- Support to the energy transition

Alberto Serrano | Worley



13:30 Modernization Journey in Real Time Well Engineering: At Speed, At Scale, At Edge, in Real Time

- Data and digital technologies, will provide additional evidence to refute the theory and improve the models, converting the process from mechanization to automation.
- The talk explains how the advancement of digitalization has brought these two systems together and has sped up the transition from device-centric drilling to digitally guided well centric operations.
- Integration of digital and artificial intelligence, drilling operations have also been advanced into the IR 4.0. The discussion also covers the answer and the roadmap with illustrations.

Robello Samuel | Halliburton



14:00 Holistic view of asset predictive analytics

- Data collection from assets
- Transportation of data to cloud or on-prem
- Apply ML/AI on this data using data-driven models and validate value proposition
- Scale it to all asset class, equipment class and system class and that's how you can modernize and optimize your pipeline or any other system

Noman Rasool | Shell



14:30 Reserved

15:00 End of Day 2

Day 3

Wednesday, 16 November 2022

US Eastern Time (ET)

9:30

Realizing the value of digitalization for oil & gas production - the necessity of rigorous separation modelling

- Oil & gas production expansion opportunities from existing assets have never been more imperative
- A case study is presented, based on a mid-scale production facility. The key steps in providing a digital twin of suitable fidelity are set out
- Optimization of the process is shown to depend on modelling the potential for retro-fit upgrade of separation equipment

Tom Ralston | MySep Pte Ltd



10:00

Practicalities of Applying Digitalization Technologies to Upstream and Midstream Assets

- How to Assess Digitalization Maturity
- Common Challenges and Important Considerations
- Unlocking New Workflows and Solutions through Digitalization

Jeffery Anderson | Sensia
Bronze Sponsor



10:30

Knowledge in a Nutshell: The Digitalization of Tribal Knowledge

- Race to the finish: how to extract knowledge and know what you don't know
- How to use technology to capture tribal knowledge and create a knowledge store
- Orchestration and optimization of people, process, technology, and knowledge for operational excellence, to gain efficiencies and to truly digitize knowledge

Liane Ghosh | Innovatia
Bronze Sponsor



11:00

Keep your digital twin in-sync with field changes

- From the moment it is built, an industrial facility starts drifting away from engineering data.
- Samp's AI connects 3D reality capture with your systems of record on a continuous basis.
- The real state of facilities can be directly compared to technical data and exposed to all.

Thomas Grand | Samp



11:30

Industry, Data and Continuous Improvement: how to be efficient in a low investment environment

- Data quality: Key factor for data-driven business decision
- Digital Twin: Process improvement and equipment integrity
- Machine Learning: an ideal tool to build hybrid model
- Connect'In® : Reinforcement of client-licensor confidence with SaaS

Philippe Mege | Axens



12:00

Networking Break

12:30

Cybersecurity in acquisitions and carveouts – what is usually omitted and costs a lot afterwards?

- Drive towards sustainability, geopolitical context and stakeholder expectations for business outcomes continue to catalyse the move of industrial assets from one operator to another.
- How to avoid buying a cat in the sack w.r.t. cybersecurity risks or selling an asset that may come back to haunt you?

Michał Paulski | Accenture



13:00

Digital Twinning Brownfield Assets – Unified Data for Environmental, Safety and Productivity Improvements

- Leverage AI/ML models to connect enterprise information management systems to a virtual model of their plant, enabling predictive asset integrity and object class detection
- Improves productivity by up to 33% due to less travel and simple, unrestricted data access
- Improves business continuity efforts while reducing site exposure hours
- Provides digital emission monitoring in real-time

Rob Southon | VEERUM



13:30

AI-enabled Digital Twin for Plant Operational Excellence

- Digital Technologies Dynamics: Digital technologies maturity is essential to understand the successful applications of digitalization and digital twin. Though, there are some challenges in digitalization, we bring the capability and differentiators to overcome those challenges.
- Digital Twin as Stack of Layers: Digital Twin is a stack of layers including a Data Lake, 3D Visualization, Hybrid Models (AI + First Principle models), and Digital Applications. The interesting thing is that all layers are built on a scalable AI Platform so that everything is integrated and modular.
- Applications and Value Proposition of Digital Twin: The Digital Twin consists of one or multiple applications depending on the operator's needs. These applications can be remote performance monitoring, real-time optimization, process or asset performance prediction, and AR/VR for maintenance and turnaround planning, safety, training, etc.

Nikhil Chauhan | Lummus Digital



14:00

Metaverse & The Future of Collaboration

- Metaverse in the O&G industry represents vast opportunities and improved collaboration while reducing the need for travel and in person communication
- A third horizon technology that is gaining fast interest
- How will this new wave of technological edge affect the industry.

Osama Hanna | Microsoft



14:00

Mining the Metaverse- How Mining has Evolved

- Tokenizing assets under the ground without the need to mine
- Valuating data based on operations
- Logistics databases on import/export information from site

Nathaniel Bradley | Data Vault Holdings Inc.



14:30

End of Day 3