

Virtual Workshop Agenda

Digital Transformation in the Context of Energy Transition

Thursday, December 2 2021, from 1:00 to 4:00 p.m. Riyadh time (GMT+3)

OPENING REMARKS

1:00 – 1:15 p.m. – Welcome and Introduction

Dr. Fahad M. Alturki, Vice President, Research, KAPSARC

Abderrehman Beloucif, Vice President Saudi Arabia & Bahrain at Baker Hughes

Saeed Al-Mubarak, Chairman of the Society of Petroleum Engineers (SPE), Digital Energy Technical Section

SESSION 1

1:15 – 2:05 p.m. – Digital Transformation: Realities and Expectations

Digital transformation has gained greater momentum during COVID-19 and is perceived by leading oil and gas enterprises as a pivotal vehicle to improve efficiency and accelerate the decarbonization of the oil and gas value chain. Historically, many large-scale digital applications have experienced setbacks and challenges and have under-delivered on what they had envisaged to fulfil. In the era of energy transition, oil and gas developers are raising the bar of expectations and are emphasizing the role of digitalization in reshaping the future of the oil and gas industry.

The session aims on providing insights on the intrinsic value of digitalization and assess infrastructure readiness, market maturity, human capital, processes, and access to capital. Presenters will attempt to provide answers and insights to the following questions:

- What are the imperatives for successful oil and gas digital projects?
- What are the techno-economic challenges that could impede the scalability of digital solutions in the oil and gas industry?
- How can the oil and gas developers manage the realities and expectations in their quests of becoming more digital?

Speakers:

- Saeed Al-Mubarak, Chairman of SPE Digital Energy Technical Section
- Havard Homas, Partner and Associate Director at Boston Consulting Group (TBC)
- Dr. Tony Edwards, Chief Executive Officer of Stepchange (TBC)

Moderator: Frank Felder, Director at KAPSARC

2:05 – 2:55 p.m. – Bridging Digital Transformation and Energy Transition

For decades, oil and gas has provided the globe with the best value proposition of reliable, cost-effective, and safe energy supplies in relative term compared to other energy sources. The metrics in this value proposition remain constant today. However, current global greenhouse gas targets and today's definition of clean energy highlight the opportunity for emission management and create an economic incentive for decarbonization by producers and users, each playing a critical role in what is commonly referred to today as energy transition.

From new technologies and processes to improved supply chain management, the energy transition is a journey that utilizes multiple vehicles, one of which is digitalization. In this session we seek to demystify the energy transition in the context of the oil and gas industry and associated value chain and examine the role digitalization plays in this journey by addressing the following questions:

- What does the energy transition have in common with digital transformation?
- How are standards and regulations shaping the role of digitalization in the energy transition?
- How are the investment community, customers, and regulation accelerating the energy transition conversation?

Speakers:

- Dr. Medhat (Med) Kamal, 2023 SPE President (TBC)
- Anak Bt Karim, Digital Strategy and Planning Director at Petronas (TBC)
- Thamir Al Shehri, Research Associate at KAPSARC
- Mohammed Al-Habib, Energy Transition Executive at Baker Hughes

Moderator: Dr. William Roberts, Director at King Abdullah University of Science and Technology (TBC)

2:55 p.m. – 3:45 p.m. – Application Opportunities, Potential Solutions, and Associated Risks

There is an economic incentive to digitalization, either due to incremental efficiency improvements, advanced data collection and analysis, and process management and automated decision making. It also poses challenges and risks if not carefully accounted for nor redundant systems are in place to ensure operational continuity.

It also requires fit-for-purpose de-risking strategies and mitigation plans to minimize adverse unintended consequences as major players in the oil and gas industry gradually embrace digitalization as the way forward.

The session dives into digital solutions currently playing a role in achieving carbon neutrality and addresses the underlying risks associated with data and cybersecurity by answering the following questions:

- What is the role of digitalization in advanced emission quantification and fugitive gases monitoring and management across the oil and gas value chain?
- What are the measures taken by regulators and the oil and gas industry to ensure resiliency and redundancy to combat operational disruptions, data management and cybercrimes?

Speakers:

- Dr. Anthony Kakpovbia, Emissions Management MENAT Leader - Baker Hughes
- Martin Young, Senior Director at the World Energy Council (TBC)
- Mansour Abilkasimov, Cybersecurity Governance at Schneider Electric (TBC)

Moderator: Majed Al Suwailem, Research Fellow at KAPSARC

3:45 p.m. – 4:00 p.m. – Wrap up: Majed Al Suwailem, Research Fellow at KAPSARC