EAGE

15-16
OCT. 2024
KUALA LUMPUR
MALAYSIA

EAGE CONFERENCE ON ENERGY EXCELLENCE

DIGITAL TWINS & PREDICTIVE ANALYTICS

FIRST ANNOUNCEMENT
AND CALL FOR PAPERS

WELCOME TO KUALA LUMPUR

Kuala Lumpur, the capital of Malaysia, embodies a vibrant metropolis where diverse cultures converge, offering a distinctive experience to visitors. Considered the main gateway to Malaysia, Kuala Lumpur boasts an array of attractions that highlight the city's rich diversity. Its identity is rooted in history, people, art and traditions. From cultural heritage to shopping, entertainment, nature, adventure, luxury travel, business, medical tourism, wellness, and education, Kuala Lumpur's multifaceted offerings make it truly distinctive. Among its sleek high-rise buildings, Kuala Lumpur is home to the world's tallest twin towers, Petronas Twin Towers, and the world's second-tallest building, Merdeka 118. Renowned for its skyscrapers, cultural dynamism, culinary delights, and fascinating sights, Kuala Lumpur captivates travelers with its unparalleled charm.

OVERVIEW

The "Energy Excellence: Digital Twins and Predictive Analytics" conference stands as a premier global forum, showcasing the revolutionary integration of digital twins, data science, and predictive analytics within the energy sector, with a strong emphasis on sustainability and achieving carbon neutrality. This event is committed to enhancing operational efficiency, promoting interdisciplinary collaboration, and leveraging the power of data-driven strategies to not only advance technological innovations but also to drive the energy sector towards zero carbon goals. The conference serves as a critical forum for exploring the role of advanced AI applications, effective data management practices, and digital innovation in improving maintenance, safety, performance, and process optimization. It underscores the importance of these technologies in facilitating a significant reduction in carbon emissions, supporting the transition to renewable energy sources, and fostering sustainable development within the highly competitive oil and gas industry.

As a vibrant gathering of industry professionals, technology innovators, and sustainability advocates, the conference aims to accelerate the digital transformation of the energy sector. This transformation is essential for meeting global sustainability targets, enhancing environmental stewardship, and ensuring the industry's long-term viability in a carbon-constrained world.

The committee invites technical submissions for oral and poster presentations on a broad spectrum of topics. These include, but are not limited to, case studies and research findings, proof of concepts, and brilliant ideas that demonstrate the impact of digital technologies on promoting energy efficiency, reducing greenhouse gas emissions, and advancing the pursuit of carbon neutrality within the energy sector.

Technical Committee

Dr. Sanjeev Rajput (Co-Chairperson)	PETRONAS
Marzuki Kamaruzaman (Co-Chairperson)	PETRONAS
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Dr. Asaad Abdollahzadeh (Digital Advisor)	PETRONAS
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Foo Keat Hoe	Shell
Nguyen Dac The	SLB
Balaji Chennakrishnan	Telesto Energy

CALL FOR ABSTRACTS

The Call for Abstracts for EAGE Conference on Energy Excellence: Digital Twins and Predictive Analytics is OPEN! The submission deadline is set to **Thursday, 25 July 2024, 2359 hrs (UTC+8)**. After this date, it is no longer possible to add submissions. Please scan the QR code to visit the event website and learn more information on abstract submission.

TOPICS

1. Digital Twins for Predictive Maintenance Resulting in Cost Efficiency and Operation Safety:

- Application of predictive analytics and AI/ML algorithms to predict future performance, such as potential failures or breakdowns.
- Simulation of equipment maintenance and implementation of predictive and prescriptive analytics for maintenance cost avoidance or saving.
- Use of digital twins for predictive maintenance of drilling and production equipment, improving asset reliability and reducing downtime through analytics.
- Application of Large Language Models (LLMs) for equipment reliability, identifying root-causes, and prescribing actions to be taken.

2. Optimizing Field Exploration, Development, and Management, Resulting in Higher Extraction Rates and Increased Profitability:

- Innovations and applications in enhancement of subsurface imaging, more accurate and efficient interpretation of seismic data.
- Innovations and applications of predictive analytics and digital twins in well-logging and reservoir characterization.
- Utilization of digital twins for reservoir modeling, monitoring, and simulation.
- Digital fields and real-time decision support in planning well production and field optimization.

3. Digital Twins and Predictive Analytics for Improving Drilling Operations:

- Simulating various drilling scenarios and prescribing the best strategies, such as the optimal drilling speed and direction.
- Advanced geosteering techniques for real-time reservoir navigation and enhancing wellbore placement accuracy and productivity.
- Digital twins for optimizing drilling fluids using under geological uncertainty, complexity of drilling fluids and operational parameters.

4. Digital Twins for Simulating Hazards and Improving Safety:

- Simulate scenarios to optimize operational procedures and prevent hazards.
- Utilization of digital twins systems for employee training, simulating dangerous situations in a risk-free environment.
- Simulate emergency scenarios, predict equipment failures or leaks, and identify potential safety risks in oil and gas operations.

5. Big Data and Digital Architecture for Enabling Efficient and Effective Digital Twins and Predictive Analytics:

- Data management strategies for efficient data storage, processing, analysis, and interpretation in oil and gas operations.

- Utilization of high-performance computing in the energy sector for implementing digital twins.
- Implementation of digital twins systems using IoT, connectivity, edge computing, and cloud system.
- Future trends in digital twins, such as robotics and autonomous systems.

6. Sustainability and Environmental Impact Assessment and Mitigation through Digital Twins and Predictive Analytics:

- Simulate, assess, and mitigate environmental impacts of energy operations.
- Simulate new regulations and/or technologies, adopt sustainable practices and as a result, minimize ecological footprints.
- Simulate and optimize carbon capture and storage using predictive and prescriptive analytics.

SPONSORSHIP

Why Become a Sponsor?

This event is a great opportunity to obtain the latest information on developments in the industry and expand your network and exchange ideas, meanwhile sponsorship enhances your visibility and corporate image before an international audience. Companies are invited to participate in the sponsorship of the **EAGE Conference on Energy Excellence: Digital Twins and Predictive Analytics** and achieve high visibility in a qualitative and uncluttered environment.

The programme offers a diverse investment that's sure to help you reach your target audience.

Sponsoring or exhibiting at the event will enable you to:

- Increase your visibility before an international audience
- Enhance your corporate image
- Reach an influential, exclusive audience
- Break through the media clutter
- Associate your company with EAGE – the world's truly multi-disciplinary geoscience and engineering society

For information on sponsorship packages, please contact EAGE Asia Pacific office at asiapacific@eage.org or call us at +603 2722 0140.

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