

**18 – 20 February 2025** *Kuala Lumpur, Malaysia* 

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**Co-Host** 





Energy for All: Reflect >> Innovate >> Evolve CONFERENCE PREVIEW



# **INVESTING IN YOUR INDUSTRY**

The International Petroleum Technology Conference (IPTC) is uniquely organised by four professional societies: AAPG, EAGE, SEG and SPE, serving as the only fully integrated major joint event in the Middle East and Asia.

IPTC is a vital hub for geoscientists and engineers, fostering collaboration on integrated technical solutions to address the evolving needs of the energy sector while promoting impactful decarbonisation solutions.

By emphasising IPTC societies' collective strength and responsiveness to industry concerns with a focus on innovation, creativity, global connections, student activities and recognition through its prestigious awards, IPTC is one of the largest technical conferences globally.

Income from this event is invested back into IPTC's energy education programmes and the sponsoring societies' programmes that provide opportunities for industry professionals to enhance their professional and technical competence.



The American Association of Petroleum Geologists (AAPG), founded in 1917, has been a pillar of the world-wide scientific community. The original purpose of AAPG, to foster scientific research, to advance the science of geology, to promote technology, and to inspire high professional conduct, still guides the Association today. Currently the world's largest professional geological society with approximately 40,000 members in 129 countries, AAPG provides publications, conferences and education opportunities to geoscientists and disseminates the most current geological information available to the general public.



The Society of Exploration Geophysicists (SEG) is a not-for-profit organisation committed to connecting the world of applied geophysics. With more than 20,000 members in 128 countries, SEG provides educational and technical resources to the global geosciences community through publications, books, events, forums, professional development courses, young professional programmes, and more. Founded in 1930, SEG fosters the expert and ethical practice of geophysics in the exploration and development of natural resources, characterisation of near surface, and mitigation of earth hazards. For more information, visit: www.seg.org

#### EAGE EUROPEAN ASSOCIATION OF

The European Association of Geoscientists & Engineers (EAGE) is a professional association of geoscientists and engineers. Founded in 1951, it is an organisation with a worldwide membership, providing a global network of commercial and academic professionals. The association is truly multi-disciplinary and international in form and pursuits. EAGE operates two divisions: the Oil & Gas Geoscience Division and the Near Surface Division. EAGE has around 19,000 members worldwide representing over 100 countries. All members of EAGE are professionally involved in (or studying) geophysics, petroleum exploration, geology, reservoir engineering, mining and civil engineering.



The Society of Petroleum Engineers (SPE) is a not-for-profit professional association whose more than 119,000 members in 138 countries engaged in the exploration and production of oil and gas and related energy resources. SPE is a key technical and professional resource providing opportunities to exchange information as in-person and online events and through training, publications, and member programs. SPE maintains offices in Calgary, Dallas, Dubai, Houston, Kuala Lumpur and London.

For more information, visit: www.spe.org

For more information, visit: www.eage.org

## **COMMITTEE LEADERSHIP**

# **EXECUTIVE COMMITTEE**



Adif Zulkifli Executive Vice President & CEO, Gas & Maritime Business PETRONAS



Khaled Al Mogharbel Executive Vice President, Geographies SLB



Access the complete Executive Committee members list

#### **Member Organisations**

- ADNOC
- Aramco
- Baker Hughes
- Borr Drilling
- Chevron
- China National Offshore Oil Corporation (CNOOC)
- China National Petroleum Corporation (CNPC)
- China Petroleum & Chemical Corporation (SINOPEC)
- ConocoPhillips
- Deleum
- Dialog
- Eni
- ExxonMobil
- Hess
- Hibiscus Petroleum
- Japan Organization for Metals and Energy Security (JOGMEC)
- JX Nippon Oil & Gas Exploration Corporation
- Mubadala Energy
- OneSubseaPETRONAS
- PEIRONAS
- PetroVietnam Exploration & Production
- PTT Exploration and Production
- Shell
- SLB
- Technip Energies
- TechnipFMC
- Viridien

## **COMMITTEE LEADERSHIP**

# **PROGRAMME COMMITTEE**



Mohd Redhani Abdul Rahman Vice President International Assets Upstream PETRONAS



Mohammed AlDuhailan Director Exploration Resource Assessment Aramco



Access the complete Programme Committee members list



Meng Keong Lee Managing Director, East Asia SLB

#### **Member Organisations**

- AEM Energy Solutions
- Aker Solutions
- Antonoil
- AWT International
- Aramco
- Baker Hughes
- Boston Consulting Group
- Bumi Data Mining
- Chevron
- China National Offshore Oil Corporation (CNOOC)
- China National Petroleum Corporation (CNPC)
- China Petroleum & Chemical Corporation (SINOPEC)
- Computer Modelling Group
- ConocoPhillips
- Curtin University
- Dialog Energy
- Expro
- ExxonMobil
- Geosoftware
- Halliburton
- IFP Technologies (Canada)
- Inha University
- innovateq

- INPEX
- King Abdulaziz City for Science and Technology
- King Abdullah Petroleum Studies and Research Center
- Kongju National University
- Mubadala Energy
- National Energy Technology Laboratory
  NOV
- Oman OQ E&P
- OMV
- Osaka Gas Australia
- Petrolab Australia
- PETRONAS
- PGS
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# Energy for All: Reflect 🅨 Innovate 🍉 Evolve

The seventeenth edition of the International Petroleum Technology Conference (IPTC) is hosted by PETRONAS and co-hosted by SLB from 18–20 February 2025 in Kuala Lumpur, Malaysia.

A world renowned multi-disciplinary conference covering major sector subject areas:



# **COLLABORATE AND CREATE** SUSTAINABLE VALUES FOR THE ENERGY INDUSTRY







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# IPTC 2025 At a Glance

#### CONFERENCE





ך**350+** technical paper presentations



7



ACCESS preliminary programme

#### **EXHIBITION**











#### **SPECIAL PROGRAMMES**



industry development programmes

- Emerging Leaders
- Diversity, Equity and Inclusion
- University Students
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IPTC Excellence Awards



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# How can technology lower industrial emissions at scale?

Discover how our aim to capture up to 11 million tons of carbon p.a. by 2035 through scalable technology could help reduce the impact of industrial carbon emissions.

Explore our carbon capture roadmap.





#### CONFERENCE PROGRAMME SCHEDULE

Time	Plenary Hall	Conference Hall 2	Conference Hall 3	Room 401-402	Room 403-404	Room 405	Room 406-407	Room 408-409	Room 410	Ground Level, Hall 1	Ground Level, Hall 1
0900-1030 hours			IPTC Society Presidents Panel Session	Technical Session 1 Decarbonisation through Improved Regulations, Monitoring and Cost Optimisation	Technical Session 2 Big Data/Artificial Intelligence I	Technical Session 3 Evolving Practices in Facilities Management	Technical Session 4 Innovative Solutions for Production Enhancement	Technical Session 5 Unlocking Resources: IOR/EOR Techniques	Technical Session 6 Seismic Imaging and Inversion		Diversity Facility & Indusia
1030-1100 hours	Coffee Break / Knowledge Sharing ePoster Session 1										Diversity, Equity & Inclusio Programme
1100-1230 hours			Celebrating Excellence: Insights from IPTC Award-Winning Projects	Technical Session 7 CO2 Injection	Technical Session 8 Advancements in Drilling Technology	Technical Session 9 Robotics, Advanced Sensing, and the Internet of Things (IOT)	Technical Session 10 Petroleum Geology	Technical Session 11 Advancements in Completions Technology Applications	Focus Session: Geothermal Technologies: Bridging Innovation and Implementation		
1230-1400 hours					Conference	Luncheon					
1300-1330 hours	Knowledge Sharing ePoster Session 2									Energy Education University Student Programme	
1330-1400 hours	Knowledge Sharing ePoster Session 3										
1400-1530 hours	Opening Ceremony & Award Presentation										
1530-1630 hours	Coffee Break										
1600-1630 hours	Knowledge Sharing ePoster Session 4										
1630-1730 hours	CEO Dialogue Energy for All: Reflect										
1730-1900 hours					Welcome I	Reception					
0900-1030 hours		Executive Panel 1 Data-Driven Transformation: Leveraging AI and Digitalisation for Operational Efficiency	Industry Panel 1 CCUS/CCTUS: Breakthroughs in Technologies and Innovative Business Solutions	Technical Session 12 Improving Forecast: Innovative Simulation Techniques	Technical Session 13 Technology Applications for Sand Management	Technical Session 14 Enhanced Practices in Integrity Management	Technical Session 15 Application of Geophysical Methods in Complex Geology	Technical Session 16 Challenges in Well Construction I	Distinguished Lecturer Session 1 - Geoscience & Hydrogen		
1030-1100 hours	Coffee Break / Knowledge Sharing ePoster Session 5										
1100-1245 hours		Executive Plenary I Energy for All: Innovate (1109-1200 hours) Executive Plenary II Energy for All: Evolve (1200-1245 hours)		Technical Session 17 CO2 Modelling	Technical Session 18 Cloud Computing	Technical Session 19 Sustainability and Efficiency in Artificial Lift	Technical Session 20 Geoscience Reservoir Characterisation I	Technical Session 21 Challenges in Well Construction II			
1245-1400 hours	Conference Luncheon									Energy Education University Student Programme	Energy Education Works
1300-1330 hours	Knowledge Sharing ePoster Session 6										
1330-1400 hours	Knowledge Sharing ePoster Session 7										
1400-1530 hours		Executive Panel 2 Accelerating Decarbonisation: Policies to Pathways		Technical Session 22 Optimisation of Drilling Well Planning and Execution	Technical Session 23 Big Data/Artificial Intelligence II	Technical Session 24 Formation Evaluation	Technical Session 25 Geoscience Reservoir Characterisation II	Technical Session 26 Well Integrity and Well Intervention	Distinguished Lecturer Session 2 - CO2		
1530-1600 hours	Coffee Break / Knowledge Sharing ePoster Session 8										
1600-1730 hours		Executive Panel 3 The Future of Exploration: Sustainability and Success for the Next Decade	Industry Panel 2 Clean Energy: Hydrogen	Technical Session 27 Maximising Output: Reservoir Development and Management	Technical Session 28 Big Data/Artificial Intelligence III	Technical Session 29 Unconventional Stimulation and Operational Efficiency	Technical Session 30 Integrated Reservoir Modelling	Technical Session 31 Drilling Fluids and Cementing			
0900-1030 hours		Executive Panel 4 Pushing the Frontiers of Field Development: Making the Seemingly Impossible Economically Attractive		Technical Session 32 CO2 Storage	Technical Session 33 Adoption and Scalability through Digitalisation, Data Analytics and Automation	Technical Session 34 Practical Approach to Flow Assurance and Pipeline Integrity	Technical Session 35 Optimisation of Completions Planning and Execution		Distinguished Lecturer Session 3 - Beyond Physics		
1030-1100 hours	Coffee Break / Knowledge Sharing ePoster Session 9										
1100-1230 hours		Executive Panel 5 The Future of Natural Gas in a Low Carbon World: Navigating Challenges Across Asia	Executive Panel 6 Facilities of the Future and Emerging Technologies for Sustainable Operations	Technical Session 36 Hydrogen	Technical Session 37 Emerging Topics: Digitalisation, Data Analytics and Automation	Technical Session 38 Stimulation and Conformance for Sustainable Production Delivery	Technical Session 39 Integrated Reservoir Development and Management	Technical Session 40 Challenges in Complex Well Environment		Energy Education University Student Programme	Energy Education Worksho
1230-1400 hours	Conference Luncheon										
1300-1330 hours	Knowledge Sharing ePoster Session 10										
1330-1400 hours		Knowledge Sharing ePoster Session 11									
1400-1530 hours		Executive Panel 7 Building a Talent Ecosystem for the Energy Transition	Industry Panel 3 Pioneering Progress: Maximising Brownfield Potential through Innovations and Best Practices	Technical Session 41 Unlocking Values: Reservoir Management Strategy and Integration	Technical Session 42 Big Data/Artificial Intelligence IV	Technical Session 43 Unconventional Drilling and Completion	Technical Session 44 Integrated Reservoir and Geomechanics	Technical Session 45 Well Digitalisation and Automation			
1545-1700 hours		Closing Session (Conference Hall 2)									





DRIVE VALUE FOR EXCELLENCE COMMITMENT TO DECARBONIZATION DIVERSIFY FOR THE FUTURE

# JOURNEY TO THE ENDLESS POSSIBILITIES

### **Opening Ceremony & IPTC Excellence Awards Presentation**

1400-1530 hours | Tuesday, 18 February | Plenary Hall

The Opening Ceremony promises to set an inspiring tone for the conference, featuring a ministerial address by YAB Dato' Sri Haji Fadillah Bin Haji Yusof, Deputy Prime Minister and Minister of Energy Transition & Water Transformation, Malaysia. Joining him will be YM Tan Sri Tengku Muhammad Taufik, President & Group CEO, PETRONAS and Pinar O. Yilmaz, IPTC Board Chair, delivering engaging welcome remarks.

A highlight of the ceremony will be the prestigious IPTC Excellence Award presentation, celebrating outstanding achievements and innovations across the energy industry.



YAB Dato' Sri Haji Fadillah Bin Haji Yusof Deputy Prime Minister and Minister of Energy Transition & Water Transformation Malaysia



YM Tan Sri Tengku Muhammad Taufik President & Group CEO PETRONAS



Pinar O. Yilmaz IPTC Board Chair

# **IPTC Excellence Awards**

# Project Excellence Award



Coral South FLNG by Eni

The **Coral South project, operated by Eni,** is Mozambique's first ultra-deepwater FLNG development, positioning the country as an LNG exporter while delivering significant economic and social benefits. Achieving first LNG production in 2022, it has shipped over 80 LNG cargoes with exceptional efficiency and sustainability.

The project created over 800 local jobs, improved healthcare for 500,000 people, and supported education and clean energy initiatives, aligning with UN SDGs. Its innovative technologies and outstanding execution set a new benchmark for FLNG developments worldwide.

# Distinguished Achievement Award



Montri Rawanchaikul Chief Executive Officer PTTEP

His visionary leadership has transformed PTTEP into a global energy leader, achieving exceptional growth while prioritising sustainability and safety. He has driven technological innovations in natural gas production, CCUS, and renewable energy integration, positioning PTTEP at the forefront of the energy transition.

# Sustainability Excellence Award



The world's largest seawater treatment plant for oil reservoir injection set a new standard for sustainability by conserving billions of gallons of groundwater and enhancing energy efficiency through digitalisation and renewable energy.

# Young Professional Achievement Award









Sun Zhe Senior Engineer / Project Manager CNOOC Research Institute Fengyuang Zhang Associate Professor China University of Petroleum (Beijing) Braden Gilbert Vice President of Business Development & Sales Micro-Bac International Nihal Darraj CCS Researcher Imperial College London

# **CEO Dialogue: Energy for All: Reflect**

1630-1730 hours | Tuesday, 18 February | Plenary Hall

# REFLECT

# Decade in Review: Reflecting the Past and Navigating the Future of Oil & Gas

This illuminating CEO dialogue session will reflect on the past decade of the oil and gas industry and envision its energy future. The discussion will delve into major industry trends, the driving forces behind them, and pivotal moments that have redefined our landscape.

Over the past few decades, fossil fuels have been the dominant source of energy globally. However, there is a gradual decline in the recent years amidst the shift towards cleaner energy source. It is imperative for the oil and gas industry to strategically adapt and navigate the evolving landscape, striking the right balance to ensure the accessibility of energy for all.

We will explore how technological breakthroughs, policy changes, and economic swings—whether booms or recessions—have and will impact our industry on a global scale, with a special focus on Asia Pacific.

As we further reflect on the accelerating energy transition, speakers will share their views on both short and long-term industry outlooks, tackling the complexities of the energy transition trilemma.

#### **Speakers**



Mohd Jukris Abdul Wahab Executive Vice President & CEO Upstream PETRONAS



Olivier Le Peuch Chief Executive Officer SLB

Moderator



Montri Rawanchaikul Chief Executive Officer PTTEP

# **Executive Plenary: Energy for All: Innovate**

1100-1200 hours | Wednesday, 19 February | Conference Hall 2

# INNOVATE Charting the Course: Innovations for a Sustainable Energy Future

This dynamic plenary session will explore the constantly changing energy landscape, with a spotlight on the oil and gas industry as it charts its course for a secure and sustainable future. Over recent decades, this industry has witnessed remarkable transformations driven by market dynamics and fierce competition, emphasising the crucial role of innovation in driving technological advancements and novel business models.

The industry has been pushing technological boundaries to improve technology efficiency in maintaining energy accessibility and security. Significant technological breakthroughs and advancements have been achieved across various domains, including subsurface, offshore, and refining technologies.

In addition to technological advancements, natural gas is increasingly viewed as a transition fuel toward a low-carbon energy future. This shift underscores the industry's commitment to not only enhancing operational efficiency but also supporting the global move towards more sustainable energy sources.

There is also a growing recognition of the pivotal role of technological innovation in our collective journey towards decarbonisation. Particularly, carbon capture, utilisation, and storage (CCUS) technologies have emerged as vital solutions for reducing carbon emissions from our sector's industrial operations, turning challenges into opportunities.

In this plenary, industry leaders will share their views on innovative solutions and technologies for a sustainable future. They will delve into the necessity of strategic frameworks and partnerships, emphasising low-carbon solutions and gas as a transition fuel to ensure energy security, affordability, and accessibility for all.

#### **Speakers**



Adif Zulkifli Executive Vice President & CEO Gas & Maritime Business PETRONAS



Dr. Ali A. Al-Meshari Senior Vice President Technology Oversight & Coordination Aramco



Khaled Al Mogharbel Executive Vice President Geographies SLB



Helle Kristoffersen Member of the Executive Committee President Asia TotalEnergies

#### **Moderator**



Dr. Carole Nakhle Founder and Chief Executive Officer Crystol Energy

## **Executive Plenary: Energy for All: Evolve**

1200-1245 hours | Wednesday, 19 February | Conference Hall 2

# EVOLVE Evolving to Ensure Industry Relevance and Sustainability in a Changing Landscape

This panel session gathers industry leaders and senior executives to discuss the anticipated evolution of the energy market. The global energy mix is shifting significantly as part of a broader transition aimed at reducing carbon emissions and combating climate change.

The market is gradually shifting towards low-carbon energy, driven by the industry's pursuit of sustainable solutions through technological advancements such as Carbon Capture, Utilisation, and Storage (CCUS) and Direct Air Capture (DAC). In addition to fossil fuels, the industry is exploring alternative low-carbon energy sources like hydrogen, wind, and solar. Regulatory bodies and policymakers play a crucial role in advancing these decarbonisation efforts. Financial incentives, market mechanism and infrastructure support may provide strong foundation for the industry to embark the decarbonisation journey.

In tandem with the rapid evolution of energy technologies, the industry has to invest in enhancing organisational capabilities and workforce skills to adapt to the evolving energy landscape. Professionals in traditional energy disciplines have to continually update their skill sets to remain competitive and relevant in the industry.

This session will provide insights into the low-carbon solutions, addressing inherent challenges, and policy recommendation strategies for a sustainable energy future. The panel will also address strategic adaptations and the evolution of human capital essential for maintaining leadership in an evolving energy landscape.

#### **Speakers**



Ir. Mohd Yusri Mohamed Yusof Senior Vice President Project Delivery & Technology PETRONAS



Sean Chung Executive Vice President Sustainable Project Development Samsung E&A



Bandar Alkhamies Vice President New Energies Aramco



Datin Ts. Ir. Nor Ziha Zainol Abidin Head (Corporate Ventures & Development) Strategy & Ventures Division Tenaga Nasional Berhad

#### **Moderator**



Dr. Carole Nakhle Founder and Chief Executive Officer Crystol Energy

# **Executive Panel 1: Data-Driven Transformation: Leveraging Al and Digitalisation for Operational Efficiency**

0900-1030 hours | Wednesday, 19 February | Conference Hall 2

In today's rapidly evolving business landscape, the integration of AI and digitalisation has transformed operational efficiency, enhancing decision-making, sustainability, and innovation.

This session will explore the benefits of AI and advanced digital tools in providing actionable insights, automating processes, and supporting sustainability goals. Industry experts will discuss how AI reshapes organisational processes, and the competitive edge gained through intelligent data utilisation and predictive analytics.

Key Topics:

- Al and Digitalisation: How are Al and digitalisation reshaping decision-making and efficiency?
- Actionable Insights: How can AI drive sustainability and provide real-time insights?
- Acquisition Technologies: How do acquisition technologies support digital transformation, enhancing efficiency, safety, and innovation?



Sinthu Satawiriya Head of Ventures Al and Robotics Ventures



Krish Krishnan General Manager KBB Operations ConocoPhillips Malaysia



**Speakers** 

Swarup Joshi Director Energy & Resources Asia Microsoft



Porpich Pongparnish Vice President, Digital Chevron Thailand Exploration and Production, Ltd.



**David Reed** Executive Vice President and Chief Commercial Officer **Weatherford** 



Dzulkarnain Azaman Senior General Manager Upstream Digital & Technology PETRONAS





Lyndsey Lomas Vice President Digital SLB in Asia



# **Executive Panel 2: Accelerating Decarbonisation: Policies to Pathways**

1400-1530 hours | Wednesday, 19 February | Conference Hall 2

The inadequate roadmap to achieve net-zero greenhouse gas emissions in the Asia-Pacific region is challenged by the need to meet growing energy demand while transitioning towards decarbonisation. CCUS, methane elimination, and electrification hold significant potential for payback and monetisation in efforts to accelerate decarbonisation.

Notably, the Asia-Pacific region could contribute 55% of global CCUS by 2050 (McKinsey, 2022), with an anticipated \$15 billion

investment across APAC (Rystad, 2024). Moreover, over 20 countries in the region have committed to reducing methane emissions by at least 30% from 2020 levels by 2030 (GMP, 2024).

To unlock this potential, and with the Global Methane and Paris Agreement Pledges on the horizon, policymakers and industry leaders must navigate this complexity by implementing effective strategies to deliver impact at scale.

This session focuses on two main objectives:

- 1. Using policies as enablers to accelerate decarbonisation of industries
- 2. Employing technologies to drive decarbonisation and electrification for efficient usage

Speakers will discuss and share lessons learned and best practices on:

- Assessing current progress and identifying challenges ahead for CCUS and methane emissions reduction in Asia.
- Developing impactful frameworks for measuring carbon emissions and advancing carbon markets.
- Making the energy transition through electrification and direct air capture technically and economically viable for energy players across the Asia Pacific.

#### **Speakers**



Aedreena Reeza Alwi Senior Director Delivery Management Unit Ministry of Investment, Trade and Industry



Ben Daly Global Head Transition Finance Standard Chartered



Dr. Patricia Seevam General Manager Transformation and Energy Transition Shell Malaysia



Jérôme Saniez Managing Director TotalEnergies EP Malaysia

#### Moderator

**Dr. Nick Cooper** 

Chair and Founder

Storegga



Dr. Carole Nakhle Founder and Chief Executive Officer Crystol Energy





# Executive Panel 3: The Future of Exploration: Sustainability and Success for the Next Decade

1600-1730 hours | Wednesday, 19 February | Conference Hall 2

As global efforts intensify towards sustainable energy sources, the role of oil and gas in the future energy landscape is increasingly questioned. When we consider sustainable energy, renewables immediately come to mind. Where do renewables stand today amidst the intensifying global energy transition?

Sustainable exploration involves various internal and external factors. Externally, there is a growing push towards sustainable energy sources driven by changes in consumer behaviour, government policies on ESG (Environmental, Social, and Governance), technological advancements, energy accessibility, and concerns about energy affordability. Internally, there is a need to balance current stakeholder expectations with future demands, and to navigate technological transformations and enhancements.

Agile exploration requires addressing subsurface capabilities and capacities to adapt to future needs. The future of energy will integrate fossil fuels like oil and gas with renewables such as hydrogen and geothermal energy. This integration necessitates essential skill sets and technologies within the exploration geoscience workforce, both now and in the future. It is crucial to assess how these skill sets have evolved, and which ones remain fundamental.

This panel will explore these critical issues shaping the future energy landscape and chart pathways towards sustainable exploration and energy security.

Khalid Rufaii Director of Western Area & Strategic Exploration Aramco

#### Speakers



Sushma Rawat

Director (Exploration)

ONGC

Mohamad Rizam Sarif Senior General Manager Geoscience Solutions Exploration PETRONAS



Amine Soudani Vice President Exploration Europe, Middle East, North Africa, and Asia TotalEnergies



Sophie Zurquiyah Chief Executive Officer Viridien (CGG)

#### **Moderator**



Andrew Latham Senior Vice President Energy Research Wood Mackenzie

#### **Executive Panel 4: Pushing the Frontiers of Field Development:** Making the Seemingly Impossible Economically Attractive

0900-1030 hours | Thursday, 20 February | Conference Hall 2

The reality is that 'easy' oil and gas discoveries are becoming increasingly rare. However, through technology and innovation, the industry has found ways to make seemingly stranded greenfield oil and gas reserves economically viable. This trend is set to continue as we are compelled to explore deeper, further, or focus on more contaminated resources to meet global energy demand.

This panel will share insights from industry leaders and experts based on their experiences in overcoming challenges specific to greenfield developments, such as highly contaminated fields, ultra deep-water, or tight reservoirs.

The discussion will center around technologies currently being developed or used, strategies to reduce costs to the extent that marginal developments become viable, and other key obstacles that are being faced and overcomed, to keep pushing the boundaries of what is possible to make technically challenging greenfield projects feasible.

Zhuang Ye Vice President Oilfield Services & Equipment Asia Pacific Baker Hughes

#### Speakers



Sun Fujie

Vice President

CNOOC



Hongkun Dong Regional Director Sales & Commercial OneSubsea



Hazli Sham Kassim Vice President Development, Upstream PETRONAS



Khoo Choo Beng Business Opportunity Manager Shell Malaysia Upstream

#### **Moderator**



Roald Rijnbeek General Manager Development & Subsurface Sarawak Shell Berhad

#### Executive Panel 5: The Future of Natural Gas in a Low Carbon World: Navigating Challenges Across Asia

1100-1230 hours | Thursday, 20 February | Conference Hall 2

This panel will assemble industry leaders, policymakers, and innovators from across Asia to explore the evolving role of natural gas in a low-carbon energy future. We will explore the key challenges and opportunities facing the Asian natural gas industry, focusing on strategies for a cleaner and more sustainable future.

Panelists will discuss:

- The dynamic role of natural gas in Asia's energy mix: How can natural gas be strategically integrated with existing energy sources to ensure a balanced, secure, and low-carbon energy landscape across the continent?
- Emerging technologies for regional decarbonisation: Exploring advancements in carbon capture, utilisation, and storage (CCUS) technologies and their potential to decarbonise the natural gas value chain across Asia.
- Economic considerations for low-carbon gas solutions: Examining how CCUS and other mitigation strategies can be implemented while maintaining the economic competitiveness of natural gas in Asia's diverse economies.
- The role of policy and regulation: Discussing how governments across Asia can establish frameworks and incentives to foster innovation and investment in low-carbon gas technologies.

By bringing together a diverse range of stakeholders, this session aims to develop a roadmap for a future where natural gas can contribute to a low-carbon energy strategy across Asia.



Wang Zhen Deputy Chief Economist CNOOC

**Speakers** 



Dr Shareen Yawanarajah

Senior Director

**Energy Transition** 

Environmental

**Defense Fund** 

Abdul Aziz Othman President Malaysia Gas Association (MGA) Regional Coordinator Southeast & South Asia International Gas Union (IGU)



Dang Ngoc Quy Vice President PetroVietnam Exploration Production Corporation



Cécile Ballantyne-Jovene Head of Strategy Department Gas Renewables & Power TotalEnergies



**Li Dan** Vice President Asia Reservoir Performance **SLB** 

#### **Executive Panel 6: Facilities of the Future and Emerging Technologies for Sustainable Operations**

1100-1230 hours | Thursday, 20 February | Conference Hall 2

With sustainability and resource efficiency becoming core mandates, facilities of the future must align with decarbonisation goals, net-zero emissions, and resource optimisation.

This session will explore how emerging technologies—including advanced acquisition systems, blockchain, and edge computing—can drive operational excellence, foster resource-efficient facilities, and support the development of resilient and sustainable infrastructure.

#### Key Topics:

- Facilities of the Future: How can future facilities operate sustainably within a decarbonised framework?
- Net-Zero Technologies: How can technology facilitate net-zero emissions and resource efficiency?
- Emerging Technologies: What roles do blockchain, edge computing, and other emerging technologies play in enhancing operational excellence?



Mohd Azra Ahamad Senior Energy Lead, APJ Amazon Web Services Chemicals, Natural Resources and

Naveen Kumar

Vice President

AVEVA

**Speakers** 



Haavard Oestensen Chief Commercial Officer **Kongsberg Digital** 



Mohd Rashdan B Mahmood Senior General Manager Integration, Value & Assurance PETRONAS Carigali Sdn. Bhd.







Megat Zariman Abdul Rahim President Velesto Energy

#### **Moderators**



Juarez Salih Lowe CEO **Bumi Data Mining**  Shahril Ridzauddin Mohd Mokhtar **General Manager** Technology and Innovation Upstream Technology, Digital & Innovation

PETRONAS



# **Executive Panel 7: Building a Talent Ecosystem for the Energy Transition**

1400-1530 hours | Thursday, 20 February | Conference Hall 2

The journey towards sustainable energy solutions hinges not only on technological innovation, but it also necessitates a comprehensive reimagining of our entire value chain. The pursuit of becoming energy companies of the future lies in the capabilities of our people – their skills, adaptability, and ingenuity – in their role as drivers and enablers across the value chain.

While Human Resources plays a central role in talent management, developing a future-ready workforce requires a collaborative approach involving strategic foresight and business objectives, integration of technology and innovation, alignment with internal functions, and engagement with external stakeholders.

Therefore, this session aims to provide a broad perspective on the following topics:

- Talent as the key driver across the value chain (people, projects, plants)
- Future-proofing the workforce for energy transition
- Building a dynamic talent pipeline
- Harmonising AI and human dynamics



Yousif M. Al-Tahan Director Unconventional Resources Completion Operations Aramco



Ruslan Islahudin Vice President and Group Chief Human Resource Officer PETRONAS Moderator

#### **Speakers**



Nurzalina Jamaluddin Head, Decarbonisation Hibiscus Petroleum



Sarah Hanes Lokman Hakim Digital Production Operations Engineer SLB in East Asia



Nadia K Ismail Vice President and Director Development ExxonMobil Exploration & Production Malaysia Inc.

#### Industry Panel 1: CCUS/CCTUS: Breakthroughs in Technologies and Innovative Business Solutions

0900-1030 hours | Wednesday, 19 February | Conference Hall 3

The development of carbon solutioning strategies and decarbonisation roadmaps worldwide is crucial for the energy industry to support the reduction of GHG and carbon emissions and achieve a net zero carbon future. In our collective efforts to advance low-carbon solutions, CCUS stands out as one of the most viable and important strategies that can effectively reduce global greenhouse gas emissions and reverse legacy emissions while ensuring energy security and affordability. Additionally, CCUS can provide solutions and support for other energy-intensive industries transitioning to a low-carbon energy future.

However, accelerating the adoption and realisation of CCUS/CCTUS technologies and solutions presents several multidimensional challenges. These include techno-commercial collaboration and business models, economic viability, technical complexities, policy frameworks, regulatory frameworks, carbon tax/credit structures, and public perception. Nevertheless, amidst these challenges lie opportunities for sustainable growth through novel collaborations and innovations.

This session will provide an engaging and robust platform to discuss key aspects of CCUS/CCTUS and involve various stakeholders, including hydrocarbon resource owners, carbon emitters, technology providers, investors, buyers, policymakers, and supporters. The session will focus on several key areas, including:

- Balancing the provision of affordable energy while generating revenue for sustainable growth
- Discussing regulatory platforms, policy frameworks, cross-border CO2 transport solutions, business models, financial mechanisms, tax regimes, and government support that facilitate CCUS/CCTUS deployment
- Examining the integrated value chain of CCUS, including emissions from other industries, upstream and downstream sectors, and the challenges in developing CCS/CCUS/CCTUS capturing sites, transportation/pipelines, hubs, and networks
- Exploring Measurement, Monitoring, and Verification (MMV) techniques and certification processes
- Addressing technological challenges, particularly in MMV, subsurface and wells

#### **Speakers**



Christian Bladanet Head of Country Malaysia Genesis Energies

Egon van der Hoeven

President

Low Carbon Solutions

Asia Pacific

ExxonMobil Asia Pacific

Pte. Ltd.

**Guangfu Wang** 

Chief Expert of

Sinopec Group

**Sinopec Petroleum** 

**Exploration and Production** 

**Research Institute** 



#### Maylada Chayavadhanangkur

Senior Vice President Carbon and Energy Solutions Division PTT Exploration and Production Public Company Limited





Rahim Masoudi Chief Technical Lead EnQuest & Veri Energy



Syed Lokman Hakim Senior Manager, Carbon Capture & Storage, Carbon Management Division PETRONAS



Mousa Namavar Carbon Solutions Director SLB in Asia

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# Industry Panel 2: Clean Energy: Hydrogen

1600-1730 hours | Wednesday, 19 February | Conference Hall 3

Over the last few years, the focus has shifted towards deep decarbonisation of the worldwide energy system. This shift toward clean energy is critical for addressing climate change and reducing reliance on fossil fuels.

Hydrogen, as a clean energy carrier, presents a promising solution due to its abundance, high energy content, and versatility.

This panel will discuss the potential of hydrogen in the clean energy landscape, focusing on:

- Production methods addressing sustainability, execution, economics, and potential to grow in scale, whether it is green hydrogen or blue hydrogen.
- Storage and distribution, focusing on storage technologies, distribution infra structure, and challenges.
- Its application in various sectors.
- Environmental and economic impact advantages of green hydrogen or blue hydrogen.
- Policy and regulatory framework entailing government support and potential collaboration across the value chain.
- Current technology challenges and the need for more research
- Industry adaptability, considering the challenge from other renewable energy sources.
- Future outlook.



**Chen Ping Shang** Head of Finance Planning & Business Analysis Hydrogen **Gentari** 

#### **Speakers**



Masato Otaki

Executive Officer

Head of Low Carbon

Fuel Planning Group

JERA



Bradley W. Lingo Chairman Pilot Energy



Antonio Yoon Vice President & Director Samsung Heavy Industries



Jessica Ong Deputy General Manager Hydrogen Department Sumitomo Corporation Malaysia

#### Moderator



Yoshi Saito Asia Pacific Director SLB New Energy

#### Industry Panel 3: Pioneering Progress: Maximising Brownfield Potential through Innovations and Best Practices

1400-1530 hours | Thursday, 20 February | Conference Hall 3

Brownfield, in definition, refers to oil or gas accumulations that have matured to a production plateau or progressed to a stage of declining production. Looking ahead to expectations for the offshore industry in 2024, Westwood forecasts the global offshore O&G-related EPC contract award value to total approximately \$68 billion, driven by 89 greenfield and brownfield project FIDs over the next 12 months. This represents a 74% increase in the EPC award value recorded in 2023.

This session will discuss:

- New technologies centering around the extension of field life, reservoir monitoring techniques, and production enhancement techniques for brownfields.
- Best practices for cost-effective reservoir monitoring options and decommissioning wells for field abandonment in a safe, sustainable, and environmentally friendly manner.
- Ongoing efforts surrounding flow assurance monitoring, operational standards and management, as well as their mitigation procedures.

Keith Collins Chief Operating Officer Dialog Group Berhad

#### Speakers

**Mrinal Vohra** 

Vice President – APAC

Expro





Martin White Senior Vice President Asia Pacific Halliburton



Sunu Broto Wusono Senior Manager Project Delivery Offshore Medco Energi

Mohamed Aly Sadek Vice President Production Systems SLB in Asia

#### Moderator



Irmawaty Bt Abdullah Principal Reservoir Geoscience, MPM PETRONAS

#### IPTC Society President Panel: Professional Societies: Fostering Innovation, Collaboration and Agility for Maximising Value

0900-1030 hours | Tuesday, 18 February | Conference Hall 3

Presidents of IPTC's four sponsoring societies convene to share the latest trends and emerging opportunities within their respective professional sectors.

Discussion topics to include:

- What are the value propositions of societies?
- Enhancing membership and engagement with industry.
- Collaborating with universities to develop content and curricular that produce industry-ready, relevant graduates, shaping the future workforce pipeline.



Deborah Sacrey 2024-2025 AAPG President

#### **Speakers**



Sanjeev Rajput 2024-2025 Vice President EAGE Custodian and General Manager Reservoir Geoscience PETRONAS



John Eastwood 2024-2025 SEG President



Olivier Houzé 2025 SPE President Co-Founder and Managing Director KAPPA Engineering

Moderator



Sandeep K. Chandola Head (Technical Capability) Technical Assurance & Capability PETRONAS

#### Focus Session: Geothermal Technologies: Bridging Innovation and Implementation

1100-1230 hours | Tuesday, 18 February | Room 410

Commercial use of geothermal power has been in operation since 1913, but the sector has largely remained within a niche market. Despite its transformative potential for the energy landscape, geothermal power is still a minor entity in the current energy mix due to various social, economic, and technological obstacles hampering its growth. However, the entrance of new industry players, the rise of public-private partnerships, and growing awareness of climate change may potentially catalyse a transformation akin to that driven by the shale industry.

The technology spillover from the oil and gas industry is gradually helping de-risk geothermal development and exploit opportunities in sedimentary basins and in new areas such as geothermal brines and carbon capture and storage.

This session explores the role of state-of-the-art technologies, including engineered geothermal systems, value-added minerals, green hydrogen, carbon capture, and storage, in scaling geothermal development.

#### **Speakers**



Ajit Menon Vice President, Geothermal Baker Hughes



Arash Daki Taleghani Professor Pennsylvania State University



Ammar Alali CEO Strataphy



James Daniel Country Manager, Philippines SLB

#### **Moderator**



Majed Alsuwailem Senior Fellow King Abdullah Petroleum Studies and Research Centre



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# **DISTINGUISHED LECTURER SESSIONS**

Hear from Distinguished Lecturers of IPTC's four Sponsoring Societies as they deliver cutting-edge insights and in-depth expertise









#### **Topics to be covered:**

- Climate Change, Atmospheric and Social: Implications for the Future Geoscience Workforce
- Natural Hydrogen: An Overlooked Potential Energy Resource
- Charting the Convergence: Bridging the Digital Divide, Sustainability, and Skills Gap
- Look Beneath the Surface: Geoscientists and the Future of Carbon Capture
- Geomechanical Risks Mitigation A Must for Safe Long-Term CO2 Geological Storage
- CO2 Storage Resource Management System Application and Learnings from World's First Booking
- Well DecomMISSION: Develop Sustainable Approache to Decarbonize and Repurpose Wells



Sherilyn Williams-Stroud Professor of Practice and Director of Berg-Hughes Centre Texas A&M University



Geoffrey Ellis Research Geologist U.S. Geological Survey



Sanjeev Rajput General Manager & Global Head Reservoir Geoscience/Geophysics PETRONAS



Jennifer M. Erich Bengaluru Technology Center Geoscience Manager ExxonMobil



Tan Chee Phuat General Manager & Chief Scientist Geomechanics PETRONAS



Paul Lyford Reserves and Resources Manager Santos Ltd



Steven Allan Canny Director of P&A Archer

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- Challenges in Well Construction
- Cloud Computing
- CO2 Injection
- CO2 Modelling
- CO2 Storage
- Decarbonisation through Improved Regulations, Monitoring and Cost Optimisation
- Drilling Fluids and Cementing
- Emerging Topics: Digitalisation, Data Analytics and Automation
- Enhanced Practices in Integrity Management
- Evolving Practices in Facilities Management
- Formation Evaluation
- Geoscience Reservoir Characterisation
- Hydrogen

- Improving Forecast: Innovative Simulation Techniques
- Innovative Solutions for Production Enhancement
- Integrated Reservoir and Geomechanics
- Integrated Reservoir Development and Management
- Integrated Reservoir Modelling
- Maximising Output: Reservoir Development and Management
- Optimisation of Completions Planning and Execution
- Optimisation of Drilling Well Planning and Execution
- Petroleum Geology
- Practical Approach to Flow Assurance and Pipeline Integrity
- Robotics, Advanced Sensing, and the Internet of Things (IOT)
- Seismic Imaging and Inversion
- Stimulation and Conformance for Sustainable Production Delivery
- Sustainability and Efficiency in Artificial Lift
- Technology Applications for Sand Management
- Unconventional Drilling and Completion
- Unconventional Stimulation and Operational Efficiency
- Unlocking Resources: IOR/EOR Techniques
- Unlocking Values: Reservoir Management Strategy and Integration
- Well Integrity and Well Intervention
- Well Digitalisation and Automation

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# **DEVELOPMENT ACTIVITIES**

The energy industry is committed to engaging future leaders and young talent to meet the world's growing energy demands. IPTC drives these efforts with dynamic development activities at every edition, empowering emerging leaders at all stages of their education and careers.

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## **Diversity, Equity & Inclusion Programme**

0900-1400 hours | Tuesday, 18 February



Building Inclusive Futures: Collaborating for Sustainable Change

This programme aims to explore key issues and high-level recommendations on the progress, future initiatives and direction of Diversity, Equity & Inclusion (DE&I) for the energy industry.



#### **Emerging Leaders Workshop**

0900-1600 hours | Wednesday, 19 February



#### Empowering Tomorrow's Leaders: Inspire, Innovate, Lead

A bespoke programme for young professionals and emerging leaders offering the opportunity to network with seasoned professionals, learn about pressing challenges and opportunities in the industry, and guidance on how to make the most of their careers.



#### **UOWNLOAD BROCHURE>>**

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## Energy Education University Student Programme

Monday – Thursday | 17-20 February



#### Learners Today, Architects of Tomorrow

This programme aims to provide university students with a clear insight into the industry they are about to join. It also enables them to return to their universities and colleges with a positive story to share with their peers and offers opportunities to interact with several major industry employers looking to recruit the best talent from institutions around the world.

Co-Sponsored by MCDERMOTT



## Energy Education High School Teachers and Students Workshop

0900-1600 hours | Thursday, 20 February



#### The Future of Energy

This workshop introduces local high school students and teachers to the opportunities in the energy industry through talks with industry professionals, hands-on energy lessons, and a guided tour of the exhibition.







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IPTC is focused on the dissemination of new and current technology, best practices and multi-disciplinary activities designed to emphasise the importance of the value chain and maximising asset value. The knowledge, capabilities and strengths of the participating countries and the sponsoring societies global membership, over the spectrum of multi-disciplinary technologies, are central to the success of the conference and the corresponding exhibition.



 $\bigcirc$  FIND OUT MORE >>

General Enquiries: iptc@iptcnet.org +60 3 2182 3000 +60 3 2182 3030

# **JOIN THE CONVERSATION AT IPTC 2025**