SPE Symposium: Asia Pacific Health, Safety, Security, Environment and Social Responsibility

Being Ahead of the Curve

23–24 April 2019

DoubleTree by Hilton
Kuala Lumpur, Malaysia

go.spe.org/20SM01S

Symposium Preview

Register Now
Super Early Bird ends
25 January 2019!
Group Registration Available!
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BOTTLED FRESH AIR

GET YOURS WHILE STOCKS LAST.
Have you ever imagined a future where you need to purchase air to just breathe? It may seem far-fetched now but it could be our reality. How we choose our energy matters. Natural gas, the cleanest-burning hydrocarbon, can help improve local air quality. Reducing pollution helps us breathe easy.
Welcome Message

Dear Colleagues,

The SPE Symposium on Asia Pacific Health, Safety, Security, Environment and Social Responsibility (HSSE-SR) will be held from 23 – 24 April 2019 in Kuala Lumpur.

The global energy industry has witnessed great shifts in the past five years. Stakeholders across the value chain continue to adapt to the changing oil price environment and pace of digital advancements by developing innovative technologies, strategies and processes to effectively manage cost and seize opportunities to create value.

This symposium is aptly themed “Being Ahead of the Curve”, amidst an evolving business climate where emphasis is placed on leveraging lessons learnt and innovations to increase efficiencies and create value. We must examine how the industry can prepare, mitigate and respond to stay ahead of emerging technical, regulatory and societal challenges in a safe, secure and environmentally sustainable fashion. Furthermore with the opportunities that digitalisation and automation are creating, how can the industry take advantage and integrate such innovations to complement and not compromise on HSSE?

HSSE management is going beyond systems, processes and competencies to incorporate wider factors such as human performance and cultural aspects to achieve and sustain good HSSE performance. Being ahead of the curve is not only the ability to anticipate, but to also create sustainable solutions for the future.

This event will gather regional and global experts and practitioners across the upstream and downstream value chain to share best practices, progressive approaches and innovative applications to enhance HSSE performance. Participants will have the opportunity to gain insights from influential industry leaders and subject-matter experts, and together address how the industry can remain ahead of the curve.

We thank you in advance for your participation and with your support, we believe that this symposium will be a successful and significant event for the region. We look forward to welcoming you to Kuala Lumpur!

Sincerely,

Yong Sai Chung
Symposium Chair
Head, Group Health & Safety
Group Health, Safety, Security & Environment
PETRONAS

Datuk Joseph Podtung
Symposium Vice-Chair
Head, Health, Safety & Environment
Upstream
PETRONAS

*This Symposium Preview is updated as at 30 November 2018

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About the Symposium

The SPE Symposium: Asia Pacific Health, Safety, Security, Environment and Social Responsibility (HSSE-SR) will be held from 23-24 April 2019 in Kuala Lumpur, Malaysia. Aptly themed “Being Ahead of the Curve”, this symposium provides a strategic platform for knowledge exchange and industry dialogues, and to form long-term collaboration amongst local, regional and international stakeholders and industry leaders.

What’s Planned for 2019

- Executive plenary and panel sessions with industry business leaders and regulators
- 200+ participants from 10+ countries
- 30+ industry and technology expert speakers
- 10+ hours of interactive panel sessions with subject matter experts
- 10+ hours of focused technical and Knowledge Sharing ePoster Sessions
- 5+ hours of targeted networking breaks
- Technical showcase of cutting-edge services and solutions

Who Attends

- Asset Management
- Downstream and Petrochemicals
- Process Management
- IT, Data and Analytics
- Health, Safety and Environment
- Operations Management
- Process Safety
- Project Delivery
- Purchasing and Procurement
- Quality Assurance
- Regulation and Policy
- Research and Academia
- Wells Management
- Security
- Social Performance
- Medical Occupational Health
- Toxicology
- Risk Management

Registration is now open

Register by 25 January 2019 to take advantage of the Super Early Bird offer. Group registration packages are also available – Register 5 people and pay for the price of 4.

Visit go.spe.org/20SM01S to register for the SPE Symposium: Asia Pacific Health, Safety, Security, Environment and Social Responsibility.

Disciplines

- Multi-disciplinary
- Management and Information
- HSE
- Projects Facilities and Construction
- Drilling
- Production and Operations
- Completions
- Reservoir Description and Dynamics
Committee

**Symposium Advisor**
Dzafri Sham Ahmad  
Vice President, Group, Health, Safety, Security & Environment  
PETRONAS

**Symposium Chair**
Yong Sai Chung  
Head, Group Health & Safety  
Group Health, Safety, Security & Environment  
PETRONAS

**Symposium Vice Chair**
Datuk Joseph Podtung  
Head, Health, Safety & Environment  
Upstream  
PETRONAS

**Programme Committee**

**Health Subcommittee**

*Co-Chairs*
Datin Norsayani Mohamad Yaakob, PETRONAS  
Kumarajothy Supramaniam, PETRONAS

*Members*
Pathmakanthan Ganeshamoorthy, BP  
Khalid Mohamad Yunus, PETRONAS  
Muhammad Nasir Sulaiman, PETRONAS Carigali Sdn. Bhd.  
Zuliffli Mohamad Yunus, PETRONAS  
Edwin Ho, Shell Malaysia Ltd.

**Safety and Security Subcommittee**

*Co-Chairs*
Mazri Mohd Ali, PETRONAS  
Muhamad Syahril Hussin, ExxonMobil Exploration and Production Malaysia Inc.

*Members*
Khairil Azhar Kassim, CarigaliHess Operating Company  
Captain Ramesh Chinnappan, MISC  
Lee Lian Beng, Repsol Oil & Gas Malaysia Limited  
Siti Fatimah Abdul Aziz, Schlumberger

**Environment and Social Responsibility Subcommittee**

*Co-Chairs*
Shamsol Efendi Dismal, PETRONAS  
Phanachit Dhanasin, PTTEP

*Members*
Patrice Pischedda, ACOEM  
Ng Hon Seng, Environmental Resources Management  
Nesamalar Albeper, Independent  
Lizuryaty Azrina Abdullah, PETRONAS  
Raja Tatina Raja Musa, PETRONAS  

**HSE Management and Enablers Subcommittee**

*Co-Chairs*
Mohd Hamka Ibrahim, PETRONAS  
Elie Daher, United Safety

*Members*
Simon Parsons, Advisian  
Joachim van der Muelen, Drops Asia  
Christina Phang, Environmental Resources Management  
Mohd Azmi Mohd Noor, Kebabangan  
Kartina Wati Arbi, PETRONAS  
Mohamed Amin Abdullah, PETRONAS  
Yusop Sahari, PETRONAS Carigali Sdn. Bhd.  
Alicia Choy May Yi, Repsol Oil & Gas Malaysia Limited
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ExxonMobil
Networking Luncheon – Day 1

Schlumberger
Writing Pads and Pens

Mubadala Petroleum
Coffee Breaks – Day 1 and Day 2
## Schedule of Events

### Monday, 22 April

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<th>Location</th>
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<tbody>
<tr>
<td>1300 – 1700</td>
<td>Speaker/Author Check-In</td>
<td>Frangipani, Level 10</td>
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### Tuesday, 23 April

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<tr>
<td>0730 – 1830</td>
<td>Registration</td>
<td>Grand Ballroom Foyer, Level 10</td>
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<td>0730 – 1730</td>
<td>Speaker/Author Check-In</td>
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<tr>
<td>0900 – 1830</td>
<td>Technical Showcase</td>
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<tr>
<td>0900 – 1045</td>
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<td>1115 - 1245</td>
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<td>1245 – 1400</td>
<td>Networking Luncheon</td>
<td>Ballroom A, Level 10</td>
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<tr>
<td>1400 – 1530</td>
<td>Panel Session 1: Health and Performance Shaping Factors</td>
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<tr>
<td>1400 – 1530</td>
<td>Technical Session 1: Environment and Social Performance Systems and Assessments</td>
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<td>1530 – 1600</td>
<td>Coffee Break / Knowledge Sharing ePoster Session 1</td>
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<tr>
<td>1600 – 1730</td>
<td>Panel Session 2: Leadership, Culture and Capability Development</td>
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<td>1600 – 1730</td>
<td>Technical Session 2: Well Being</td>
<td>Hibiscus, Level 10</td>
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<td>1730 – 1830</td>
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<td>0900 – 1030</td>
<td>Technical Session 3: Managing Health Risks</td>
<td>Hibiscus, Level 10</td>
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<td>1030 – 1100</td>
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<td>Panel Session 4: Product Stewardship</td>
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<td>Technical Session 4: Building a Safety and Security Mindset to Manage Risk</td>
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## Symposium Programme Schedule

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<th>Hibiscus Room</th>
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<tr>
<td><strong>Tuesday, 23 April 2019</strong></td>
<td><strong>0900 - 1045 hours</strong> Opening, Keynote and Executive Plenary Session 1</td>
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<td><strong>1045 - 1115 hours</strong> Coffee Break - Grand Ballroom Foyer, Level 10</td>
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<td>Health and Performance Shaping Factors</td>
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<td><strong>1530 - 1600 hours</strong> Knowledge Sharing ePoster Session 1 - Grand Ballroom Foyer, Level 10</td>
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<td><strong>1600 - 1730 hours</strong> Panel Session 2</td>
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<td>Leadership, Culture and Capability Development</td>
<td>Well-Being</td>
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<td><strong>1730 - 1830 hours</strong> Welcome Reception - Grand Ballroom Foyer, Level 10</td>
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<td><strong>Wednesday, 24 April 2019</strong></td>
<td><strong>0900 - 1030 hours</strong> Panel Session 3</td>
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<td>The Role of Digitalisation, IIOT and AI and their Impact on HSSE</td>
<td>Effective Strategies in Managing Health Risk</td>
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<td><strong>1030 - 1100 hours</strong> Coffee Break - Grand Ballroom Foyer, Level 10</td>
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<td>Addressing Emerging Risk of Environmental and Social Performance</td>
<td>Redefine HSE Risk Management:</td>
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<td>for Oil and Gas Industry to Meet SDGs 2030</td>
<td>Using Forefront Technologies and Techniques</td>
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<td><strong>1730 - 1800 hours</strong> Closing Session and Lucky Draw</td>
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Opening and Keynote Session

Tuesday, 23 April | 0900 – 0930 hours

Welcome Remarks

Yong Sai Chung
Symposium Chair and
Head, Group Health & Safety
Group Health, Safety, Security & Environment
PETRONAS

Keynote Address

Dzafri Sham Ahmad
Symposium Advisor and
Vice President, Group Health,
Safety, Security & Environment
PETRONAS
Executive Plenary Session 1

Being Ahead of the Curve

**Tuesday, 23 April | 0930 – 1045 hours**

**Moderator**

Gordon Ballard  
Executive Director  
IOGP

**Speakers**

Ir. Haji Omar Mat Piah  
Director General  
Department of Occupational Safety and Health (DOSH)

Dittapon Soothi-O-Soth  
Senior Vice President  
Safety Security Health and Environment Division  
PTTEP

Achieving zero harm has been the talk of the industrial sector to reduce harm to as low as possible. The management of health, safety, security and environment (HSSE) should not be stagnant. It is time to rethink and reassess how the industry can prepare, mitigate and respond to stay ahead of emerging technical, regulatory and societal challenges.

This session will engage leaders to discuss opportunities and challenges, share experiences and lessons learnt, and on how technology and digitalisation may affect the quality and productivity of the work sites - all of which are critical in shaping the future of HSSE in the region.
Executive Plenary Session 2

Next Steps Forward

**Tuesday, 23 April | 1115 – 1245 hours**

**Ballroom B, Level 10**

**Moderator**

Karl Heiden  
Head of Division, Regulatory Support  
NOPSEMA

**Speakers**

Peter Godfrey  
Managing Director, Asia Pacific  
Energy Institute

Edward Graham  
Lead Country Manager  
ExxonMobil Exploration and Production Malaysia Inc.

Brian Sullivan  
Executive Director  
IPIECA

To be ahead of the curve, the industry must equip themselves with the ability to anticipate and at the same time creating sustainable solutions for the future. With the opportunities that digitalisation and automation are creating, how can the industry take advantage and integrate such innovations to complement and not compromise on HSSE?

In this session, we will strive to better understand how HSSE management is going beyond systems, processes and competencies to incorporate wider factors such as human performance and cultural aspects to achieve and sustain good HSSE performance.
Organisations are increasingly looking at health through the lenses of performance. Good health is an essential starting point, a prerequisite for safe and successful work performance. It is also a fundamental endpoint, the outcome measure of how well health and safety management systems have performed in the preservation and promotion of worker wellbeing in the face of occupational hazards.

As such, factors that shape both health and performance can be understood on many levels. At the individual level, these include factors that allow a worker and his/her team to meet or exceed physical and intellectual demands, to fully exploit personal and organisational potential, to demonstrate maximum human capital “uptime”. Workplace health culture is often set by the tone at the top.

At organisational, community and society level, it should be recognised that the presence of health comorbidities need not be an obstacle to work excellence; examples abound of exceptional human performance despite conventionally perceived limitations. Early screening and detection, modern treatment modalities, lifestyle modifications, minimisation of complications, rehabilitation coupled with resourceful work accommodations and flexibility are constantly redefining concepts of fitness to work. Conversely though, neither is the absence of illness or disability a reliable predictor of good performance. Planning and design deficiencies and errors or under-appreciation of the importance of human factors can undermine the productivity and safety of even the healthiest worker cohort.

From a systems perspective, what shapes the effectiveness of an occupational health management system? What type of metrics will allow meaningful analysis of the performance or “health” of such systems? How effective are audits at generating fit-for-purpose solutions when gaps or opportunities for improvement are detected?

The panel session will cast a spotlight on how organisations prioritise and translate health and safety philosophy, health culture and health benefits into policies, programmes, actions that shape the performance of the workforce and the systems by which they operate.
Panel Sessions

Panel Session 2: Leadership, Culture and Capability Development

Tuesday, 23 April | 1600 – 1730 hours

Ballroom B, Level 10

Session Chair

Mohd Azmi Mohd Noor
Head Corporate HSSE
Kebabangan Petroleum Operating Company (KPOC)

Speakers

Sharifah Zaida Nurlisha
Syed Ibrahim
President, MOGSC and
Acting CEO, MMC Oil & Gas Engineering Sdn. Bhd.

Mohamed Amin Abdullah
Advisor, HSE Culture, Group Health, Safety, Security & Environment PETRONAS

Everyone in the industry desires safe operations, but the challenge is to translate this desire into action. Written rules, standards and procedures while important and necessary, are not enough. Companies must develop a culture in which the value of safety is embedded in every level of the workforce.

Culture is defined as the unwritten standards and norms that shape mindsets, attitudes and behaviours. Culture is how we do things, even when no one is watching. A culture of safety starts with leadership, as leadership drives culture and culture drives behaviour. Leaders influence culture by setting expectations, building structure, teaching/coaching others and demonstrating leadership by example. Leaders need to create the right experience for their people so that the right belief system can influence the actions their people take in delivering the right results.

A commitment to safety begins with the top leadership. But, top leaders alone cannot drive the entire culture. The real challenge to industry leaders in staying ahead of the curve amidst a dynamic boom and bust industry cycle is how to build and sustain a safety culture by addressing not only the technical part but also the softer part. We also need to leverage technologies and collaborate with others within and outside the industry to ensure effective implementation.

For a safety culture to flourish, it must be embedded throughout the organisation. Winning every hearts and minds and show that we genuinly care for the workers, where all of these will take time to nurture.

Adapted from Rex Tillerson (2010) and PETRONAS PCB
Panel Sessions

Panel Session 3: The Role of Digitalisation, IIOT and AI and their Impact on HSSE

Wednesday, 24 April  | 0900 – 1030 hours  | Ballroom B, Level 10

Session Chair

Elie Daher
Executive Vice President
United Safety Ltd.

Speakers

Satyam Priyadarshy
Technology Fellow and Chief Data Scientist
Halliburton

Praveen Hariharan
Executive Director & Partner
IBM

Philippe Herve
Vice President Solutions
Spark Cognition

Digitalisation, digital twin, innovation, data science and AI are playing a significant role in shaping the future of facilities and the industry itself.

Companies have invested more in the latest technology development, working collaboratively with partners both inside and outside the industry as well as expanding geographically in search of innovation with the promise of optimising the crude to market process, lowering costs and becoming more efficient whilst keeping everyone safer and preserving our environment.

These technologies go beyond the usual R&D department of any company. They create a disruption in the way we conduct the refining processes and provide oil and gas companies a platform to springboard a step change in the way the whole industrial business is run.

Frontier technologies such as automation, wireless monitoring, sensing, IIOT, digital twining, machine learning and robotics, augmented reality could be key innovations.

In this panel, we will discuss the technological changes and its effect or benefits on HSSE. How can we adapt or embrace these technologies and what changes we might need to do in order to improve our HSSE KPIs. This panel might also share some direct innovations using one or more of these technologies to positively impact the HSSE aspect.
Panel sessions

Panel Session 4: Product Stewardship

Wednesday, 24 April | 1100 – 1230 hours
Ballroom B, Level 10

Session Chairs

Salmaan H Inayat-Hussain
Head, Product Stewardship and Toxicology
PETRONAS

Sylvia Laggat
Production Chemistry
Services Manager
Shell

Speakers

Hazlina Yon
Director of Chemical Management Division
Department of Occupational Safety and Health (DOSH)

Caroline Li
Global Product Stewardship & Regulatory Affairs
ExxonMobil Asia Pacific Pte. Ltd.

Sureshkumar Manikam
Head, HSSE (Asia Pacific)
PETRONAS Lubricants International

Salmann H Inayat-Hussain
Head, Product Stewardship and Toxicology
PETRONAS

Sylvia Laggat
Production Chemistry
Services Manager
Shell

Product stewardship is the act of minimising health, safety, environmental, and social impacts throughout all stages of a product’s lifecycle, including the end of life management while ensuring maximum economic benefits. Everyone involved in the lifecycle of a product is called upon to take up the responsibility to reduce its environmental, health, and safety impacts. It is a shared responsibility amongst producers, retailers, regulators and consumers.

There is indeed a need to create greater awareness on product stewardship and understanding of the potential environmental, health and safety risks of the associated actions by different parties, e.g. the inherent hazards associated with the materials being used, the exposures they may cause, the risk of impacting others in a product’s lifecycle. The associated energy and materials consumption in chosen packaging; waste generation; toxic substances; greenhouse gases; and other air and water emissions.

A concerted effort from all parties involved is required to find the best solution that will reduce the negative impacts to economy, environment, public health and safety. This panel session will engage different companies to discuss their product stewardship management, share effective tools and best practices. At the same time, how can the industry think from a new perspective to handle stewardship challenges while making sure the continuous improvement is worth pursuing.
Panel Sessions

Panel Session 5: Managing Physical Attacks and Cyber Intrusion for Undisrupted Security

Wednesday, 24 April | 1400 – 1530 hours
Ballroom B, Level 10

Session Chairs

Khairil Azhar Kassim
HSE Manager
CarigaliHess Operating Company

Siti Fatimah Abdul Aziz
Country HSE Manager
Schlumberger

Speakers

Lt. Col. Sazali Sukardi
Senior Vice President of Strategic Research
CyberSecurity Malaysia

Thevanathan Kathirgamanathan
Security Advisor
ExxonMobil Exploration and Production Malaysia Inc.

Security is often being neglected until a serious incident occurred. It may come either in form of physical attacks such as theft and vandalism, or cyber intrusion during the exchange of sensitive information. As the security environment evolves, better strategies to counter security challenges become a top priority for operators and service companies to ensure oil and gas remain as high-valued commodities.

Securing information has become increasingly significant for all organisations, whether big or small. The alarming rise of cybercrimes is a serious threat to companies around the world, and data breach could cost companies billions of dollars every year. Governments and companies are working hand in hand with security firms to take crucial measures to prevent these cybercrimes.

In this panel session we will examine various aspects of managing and mitigating security risks through the views of our esteemed panellists with extensive experience in the upstream and downstream businesses. They will share their insight and knowledge on industry best practices to anticipate security risks due to the nature of our global business and operations. This includes innovative solutions and progressive approaches to control security risks to a minimum risk or a level of As-Low-As-Reasonably-Practicable (ALARP), covering both personal and physical security as well as cybersecurity and Critical Infrastructure Protection (CIP).
Panel Sessions

Panel Session 6: Addressing Emerging Risk of Environmental and Social Performance for Oil and Gas Industry to Meet SDGs 2030

Wednesday, 24 April  | 1600 – 1730 hours  
Ballroom B, Level 10

Session Chairs

Nesamalar Albeper
Independent

Lizuryaty Azrina Abdullah
Custodian, Social Performance
PETRONAS

Speaker

Thirupathi Rao
Head, Climate Change
PETRONAS

What is the oil and gas industry doing to meet the Sustainable Development Goals (SDGs) 2030? Are emerging risks related to environmental and social performance been addressed to ensure the industry meets the goal set out in the SDGs 2030? The industry has the opportunity to contribute across all SDGs, either by baseline improvements or by mitigating adverse impacts. For example, oil and gas production can foster economic and social development by providing access to affordable energy, opportunities for decent employment, business and skills development. On top of that, it can also contribute to some of the challenges that SDGs seek to address such as climate change, environmental degradation and violation of human rights.

What are the advances that has been made to avoid, mitigate and manage such impacts and risks? And what are some of the good practices implemented to contribute to society and minimise risks while seeking to align operations to these goals?

This panel session will explore these questions on emerging risks and opportunities in integrating SDGs into core business activities of oil and gas companies.
Technical Sessions (as of 30 November 2018)

Tuesday, 23 April 1400 – 1530 hours | Hibiscus Room

Technical Session 1: Environment and Social Performance Systems and Assessments

Session Co-Chairs: Nesamalar Albeper, Independent; Cynthia Ann Peterson, PETRONAS

Presentation

195411
Web-Based Environmental Impact Assessment (EIA) Application for Big Data Management
O. Jeerapornchai, S. Chonchirdsin and L. Pornsakulsakdi, PTT Exploration and Production PCL.

195424
Leveraging Big Data for Social Responsibility
C.A. Peterson, PETRONAS

An Oil Spill Preparedness Journey
S. Shahnavas, E. Melisa and A. Chee, Oil Spill Response Ltd.

Tuesday, 23 April 1600 – 1730 hours | Hibiscus Room

Technical Session 2: Well-Being

Session Co-Chairs: Edwin Ho, Shell Malaysia Ltd.

Presentation

195419
Bridging Occupational Health and Wellness: Maximising Value through Innovation, Digitalisation and Data Driven Approach
Z. Mohamad Yunus, PETRONAS

195404
Wellness Hub Transformation: Transactional to Holistic Care
K.C. Sacuan, Shell Health Services

195412
Leveraging on Technology to Manage Health and Human Rights Risks: A Differentiated Approach in Managing Fatigue
N. M Yaakob and A. Abdullah, PETRONAS

Wednesday, 24 April 0900 – 1030 hours | Hibiscus Room

Technical Session 3: Effective Strategies in Managing Health Risk

Session Co-Chair: Shanty Sivapirathoshan, PETRONAS Carigali Sdn. Bhd.

Presentation

195420
Novel Approach for Hazard Identification and Prioritisation of Chemicals Used in Oil and Gas Industry
M. Fukumura, S.H. Inayat-Hussain, A.M. Aziz, C.M. Jin and L.W. Jin, PETRONAS; R. Garcia-Milian, Yale School of Medicine; V. Vasilious and N.C. Deziel, Yale School of Public Health

A Risk Based Approach to Provision of Medical Services at Remote Sites
H. Harley and M. Hills, Chevron Australia

Wednesday, 24 April 1100 – 1230 hours | Hibiscus Room

Technical Session 4: Building a Safety and Security Mindset to Manage Risk

Session Co-Chairs: Muhamad Syahril Hussin, ExxonMobil E&P Malaysia Inc; Richard Mapus, PETRONAS

Presentation

195413
High Rise Building Evacuation: Saving Lives vs. Business Continuity
K. Mohamed Noh, S.H. Shamsi and S. Foo, PETRONAS

195416
Global Travels in the Oil Industry: Managing Threats and Risks through Orientation and Scenario Monitoring
A.H. Santos, L. Cunha, F.M. Costa, F.T. Avellar and M.O. Lucena, Petrobras
Technical Sessions (as of 30 November 2018)

195388

Cultural Change to Improve HSE Performance: Through the Eyes of an Operator and a Drilling Contractor
W.N. Bauer, Vantage Drilling Int'l.; S. Dennon, Shell

195381

5 Senses to Know Safety: Approach to Improve Safety Behavior through Participation and Interaction
F. Abqari, I. Suryana and Eni Indonesia

Wednesday, 24 April 1400 – 1530 hours | Hibiscus Room
Technical Session 5: Pollution Prevention Technology and Sustainable Solutions
Session Co-Chairs: Mariana Michael, Sarawak Shell Bhd.; Phanachit Dhanasin, PTTEP

Presentation
195406

Online Fixed Tank Volatile Organic Content Calculation and Reporting
L. Abdul Karim, A. Khairi and S. Zainal Abidin, PETRONAS

195422

Waste Upcycling for Marine Rubber Hoses
P. Sricharoen and R. Rochborvomwithaya, PTT Exploration and Production PCL.

195394

Responding to Oil Spill of Inland River Water Crossing Pipeline: Successfully Handles Oil Spill
G. Luan, China Inst. of Petroleum Safety and Environmental Protection Technology

195410

Laboratory Study of Environmental Friendly Drilling Fluid Additives to Reduce Alkalinity and Control Fluid Loss in Water-Based Muds
A. Al-Hameedi, Basra Oil Co.; A.S. Amer, Newpark Drilling Fluids

Wednesday, 24 April 1600 – 1730 hours | Hibiscus Room
Technical Session 6: Redefine HSE Risk Management: Using Forefront Technologies and Techniques
Session Co-Chairs: Simon Parsons, Advisian; Kartina Wati Arbi, PETRONAS

Presentation
195427

Leveraging Drone Based Imaging Technology for Pipeline and Rou Monitoring Survey
S. Marathe, Cairn Oil and Gas Vertical of Vedanta Ltd.

195399

Redefining Confined Space Safety: A Case Study
E. Daher, D. Dowd and S. Schoeib, United Safety

195429

HSSE Elements in Social Risk Assessment: An Internal Approach in Managing Social Risks
S. Foo and A. Abdullah, PETRONAS

195393

The Standardised Approach to Evaluate Risk by Using Layer of Protection Concept in Risk Assessment for Operation Safety
S. Srisurichan, N. Apinyovichien and W. Tiengtrong, PTT Exploration and Production PCL.
Knowledge Sharing ePosters (as of 30 November 2018)

An ePoster, presented on a digital screen, offers the added benefit of animation and video to enhance the visual experience and provide greater interactivity between attendees and authors.

During the ePoster session, authors will present their technical papers at designated ePoster stations. Attendees are encouraged to attend the sessions for more knowledge sharing and networking opportunities. ePosters are also available for attendee’s viewing at ePoster stations throughout the conference.

<table>
<thead>
<tr>
<th>Paper #</th>
<th>Presentation</th>
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</table>
| 195382   | Data Quality Management from Laboratory Aspects  
H. Yonebayashi, Y. Miyagawa, R. Matsui and T. Sunaba, INPEX Corp. |
| 195383   | Estimating Maximal Carbon Storage Capacity of Depleted Shales with Pressure Transient Analysis  
H. Chu, China U. of Petroleum Beijing; Z. Chen, The U. of Texas  
(Alternate Paper in Technical Session 5) |
| 195385   | The Analysis of Age and Experience of Incident Victims: A Case Study in Japan to Improve HSE Training Programs  
H. Shimoda, Japan Petroleum Exploration Co. Ltd. |
| 195386   | Developing Coal Bed Methane (CBM) Project as a Truly Sustainable Venture: Strategies, Technologies and Methodologies  
V. Tawde and N. Kamat, Essar Oil and Gas Exploration and Production Ltd.  
(Alternate Paper in Technical Session 5) |
| 195389   | Web-Based Application Development for Environmental Performance Reporting  
W. Kaewkong and S. Chonchirdsin, PTT Exploration and Production PCL.  
(Alternate Paper in Technical Session 1) |
| 195390   | The Oasis Solution-turning Challenges into Opportunities via Integrated Unconventional Sustainable Solution in Managing Waste from Petroleum Operation  
A. Che Arshad, A. Mohamed Basri, M. M Anuar and M. Mohd Faiz, PETRONAS |
| 195391   | Development of Psychological Readiness for Oil and Gas Work in the Arctic Conditions  
Y.A. Korneeva, Northern Arctic Federal U.; N.N. Simonova, Moscow State U.  
(Alternate Paper in Technical Session 2) |
| 195395   | Health Risk Assessment of Turnaround Activities for Offshore Facilities with Mercury Presence  
M. Mustaffa, PETRONAS Carigali Sdn. Bhd.  
(Alternate Paper in Technical Session 3) |
| 195398   | Experimental Evaluation of Sealing Narrow and Wide Fractures Using Bio-Degradable Environmental Friendly Additives Generated from Waste  
H. Alkinani and S. Dunn-Norman, Missouri U. of Science and Technology  
(Alternate Paper in Technical Session 5) |
| 195400   | Fight to be Fit Wellness Program as a Tool for Improving Employee Health Parameter  
I.S. Joko and S.S. Wanasida, PT Chevron Pacific Indonesia  
(Alternate Paper in Technical Session 2) |
| 195402   | Using Technology to Aid Communications in the Medical Emergency Response of a Remote Industrial Site  
H. Harley and M. Hills, Chevron Australia  
(Alternate Paper in Technical Session 3) |
## Knowledge Sharing ePosters (as of 30 November 2018)

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<td>195403</td>
<td>Managing Carcinogenic, Mutagenic and Reprotoxic Chemicals at the Workplace</td>
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<td>195405</td>
<td>Hazard Assessment for Hazardous Air Pollutants from Petroleum Refinery Operations Using Multi-Country Regulatory Databases</td>
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<td>M. Ismail, Kyoto U.; S. Inayat Hussain, PETRONAS; M. Yoneda, Kyoto U.; M.T. Latif, U. Kebangsaan Malaysia</td>
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<td>195408</td>
<td>Advocating Human Rights in Supply Chain</td>
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<td>R. Raja Musa and J. Heng, PETRONAS</td>
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<td>Environmental Mainstreaming for Self-Regulation (EMSR)</td>
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<td>U. Ungku Mohamed Tahir and W. Wan Aziz, PETRONAS</td>
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<td>195415</td>
<td>Subsurface Sludge Sequestration in Cyclic Steam Stimulated Heavy Oil Reservoir in Liaohe Oilfield</td>
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<td>L. Zhong, China U. of Petroleum</td>
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<td>195418</td>
<td>Fatigue Management</td>
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<td>Swiss Cheese Challenge: Creating Dialogue on Process Safety Dilemmas</td>
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<td>C. Lau, I. Norman, S. Liew and A. Kang, Sarawak Shell Bhd.</td>
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<td>195423</td>
<td>Preventing Crude Oil Leakage into the Upper Aquifer from Happening in Steam Huff-puff Production Wells</td>
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<td>195425</td>
<td>Managing Underwriters Survey of Oil and Gas Installations</td>
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<td>Q. Okasha, Kuwait Oil Co.; A. Aladasani, Consultant; M.F. Al Dushaishi, Texas A&amp;M Intl. U.</td>
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<td>195430</td>
<td>Safe Working in Hot Weather Conditions</td>
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<td>L.M. Lim, Oil Spill Response Ltd.</td>
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<td>195431</td>
<td>Use of N115 Carbon Nano-fluid for Solar Powered Steam Assisted Gravity Drainage to Extract Bitumen</td>
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<td>L.P. Lalu and R.P. Lal, Pandit Deendayal Petroleum U.</td>
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<td><em>(Alternate Paper in Technical Session 5)</em></td>
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Sponsorship and Exhibit Opportunities Available

Themed “Being Ahead of the Curve”, the SPE Symposium: Asia Pacific Health, Safety, Security, Environment and Social Responsibility will gather industry experts and practitioners across the upstream and downstream value chain to share best practices, progressive approaches and innovative applications to enhance HSSE performance.

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<th>Value (USD)</th>
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<tr>
<td>Gold Sponsor*</td>
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<td>Lanyards</td>
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<td>Symposium Bags</td>
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<td>Silver Sponsor*</td>
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<td>Networking Luncheon – Day 1</td>
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<td>Networking Luncheon – Day 2</td>
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<td>Writing Pads and Pens</td>
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<td>Symposium Digital Proceedings</td>
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<td>Symposium Bag Insertion</td>
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List of Exhibitors

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spe.org/go/20SM01
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Register by 25 January 2019 to take advantage of the Super Early Bird offer.

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   • Office: SPE Asia-Pacific (M) Sdn. Bhd., Suite 12.01, Level 12, Menara IGB, Mid Valley City, Lingkaran Syed Putra, 59200 Kuala Lumpur, Malaysia

Packages and Fees

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<th>Category</th>
<th>Type</th>
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<th>Early Bird By 22 February</th>
<th>Standard Rate AFTER 22 February</th>
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<td>USD 950</td>
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<td>Speaker/Author/ Committee/ Session Chair</td>
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<td>University Student Registration</td>
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<td>Complimentary (With valid student ID only)</td>
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Group Registration Package
Register for 5 people and pay for the price of 4.

What Do You Get
Full Symposium Registration: Admission to the symposium (opening, keynote, executive plenary, panel and technical sessions), and knowledge sharing ePoster sessions, technical showcase, welcome reception, daily networking luncheons, daily coffee breaks and one (1) symposium digital proceedings.

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SPE SYMPOSIUM: ASIA PACIFIC HEALTH, SAFETY, SECURITY, ENVIRONMENT AND SOCIAL RESPONSIBILITY

23 – 24 APRIL 2019 | KUALA LUMPUR, MALAYSIA

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| Membership Number |
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<th>FEE PER PERSON</th>
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<tr>
<td>Full Symposium Registration – includes access to the symposium sessions*, technical showcase, daily networking luncheons, daily coffee/tea breaks, welcome reception and one (1) symposium proceedings.</td>
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<td>USD 750 USD 800 USD 900</td>
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GROUP DISCOUNT – REGISTER 5, PAY FOR 4 (Refer to Group Registration Form for more information)

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REGISTRATION FEE: ONE DAY REGISTRATION

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TOTAL AMOUNT (USD)

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23 – 24 APRIL 2019 | KUALA LUMPUR, MALAYSIA

REGISTER 5, PAY FOR 4

REGISTRATION FEES

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*Symposium sessions - opening session, keynote session, executive plenary sessions, panel sessions, technical sessions and knowledge sharing ePoster sessions.

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City
Postal Code
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Office Fax
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Note: The lowest registration fee will be waived as part of Group Registration Package.

TOTAL AMOUNT (USD)

TERMS & CONDITIONS

Registration Fee
• Fee DOES NOT include accommodation. SPE will provide details of recommended hotels upon receipt of your registration.
• Registration of participant will only be confirmed upon registration and receipt of full payment or an acceptable employer’s letter of guarantee.
• All outstanding payments must be received on or prior to the date of the event for participants to be allowed to attend. SPE reserves the right to cancel the registration if no payment is received prior to or on the date of the event.
• Full fee is charged regardless of the length of time the Participant attends the event and cannot be pro-rated.

Taxes
• Fees are made free and clear of, and without any deduction or withholding for and on account of, any taxes, duties or other deductions. Any such deduction or withholding, if required by the laws of any country are the sole responsibility of the Participant.

Cancellation Policy
• A processing fee of USD 150.00 will be charged for cancellation received before 9 April 2019.
• No refund for cancellation received after 9 April 2019.
• Participant who failed to attend will not be eligible for a refund.
• Cancellation must be notified in writing to SPE.

Privacy Policy
• SPE cares about the protection of your personal information. SPE’s Privacy Policy describes your rights and choices regarding the personal information that you provide to us.
• SPE’s Privacy Policy describes the practices regarding how SPE, through its affiliated corporate entities, collects, uses, discloses, or transfers the personal information that you share with us or that we collect about you when you become an SPE member, attend one of our events or visit our websites, or use our mobile applications.
• Please visit our website at http://www.spe.org/privacypolicy.php for further details on SPE's Privacy Policy. We reserve the right to amend the SPE Privacy Policy at any time and will place the latest version on our website.

Disclaimer
• SPE reserves the right to change the speaker(s), date(s), venue or to cancel the event should circumstances beyond its control arise.
• SPE reserves the right to cancel a Training Course if number of participants is not sufficient. A minimum of 30 days’ notice will be given.
• SPE will not be liable to you for any damages, costs, losses or expenses of any kind incurred or suffered by you as a result of or in relation to SPE modifying, postponing or cancelling the event or any part of the event.
• The Participant acknowledges and agrees that by registering for this event, the Participant accepts these Terms and Conditions and agrees to be bound by them.

PAYMENT METHODS

[ ] Telegraphic Transfer

[ ] Credit Card

Bank details will be provided in the invoice.

SPE accepts American Express, Visa, MasterCard and Diners Club and payment will be processed in US dollars only.

To pay online, go to: http://www.spe.org/go/20SM01

For manual payment, you will receive an email with instruction on securely submitting your payment.

SPE Contact:
Society of Petroleum Engineers
Suite 12.01, Level 12, Menara IGB
Mid Valley City, Lingkaran Syed Putra
59200 Kuala Lumpur Malaysia
Tel: +60 3 2182 3000 Fax: +60 3 2182 3030
Email: spekl@spe.org
General Information

Venue

DoubleTree by Hilton Hotel Kuala Lumpur
The Intermark 348 Jalan Tun Razak, Kuala Lumpur, 50400, Malaysia
P: +603 2172 7272
W: DoubleTree by Hilton Kuala Lumpur

Delegate Pack
The delegate pack consisting of event brochure and other relevant information will not be mailed in advance. They can be collected during the event at the venue.

Badge Collection
Event badges will not be mailed in advance. They can be collected during the event at the venue.

Badges are required for admission into the event and must be worn at all times during event days.

Airport

KL International Airport (KLIA) and KLIA2 are the main airports in Malaysia for many international and domestic destinations. They are approximately 50km from Kuala Lumpur with various options of transportation via airport/hotel limousine, taxis and buses. The most convenient way to travel into Kuala Lumpur is via the KLIA Express, which takes approximately 28 minutes to reach Kuala Lumpur.

Photography and Audio Visual Copyright

All conference sessions and the exhibition/technical showcase are protected by international copyright laws.

Photography and video/audio recording of any kind in conference sessions and the exhibition are prohibited without prior written permission by SPE.

SPE Membership Offer

By attending this event, non-member full registration attendees can join SPE at no additional cost. Ensure you are signed up for SPE communications, and then look for your exclusive offer by email shortly after the event.

Accommodation

Event attendees are entitled to the SPE corporate rate at the hotel below:

DoubleTree by Hilton Hotel Kuala Lumpur
The Intermark 348 Jalan Tun Razak, Kuala Lumpur, 50400, Malaysia
P: +603 2172 7272
W: DoubleTree by Hilton Kuala Lumpur

Guests are to make reservations directly with the hotel, for enquiries please contact:
Kenji Au / Janice Goh, DoubleTree by Hilton Kuala Lumpur
Tel: +603 2264 2921
Email: Kenji.Au2@hilton.com or Janice.Goh@hilton.com

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<thead>
<tr>
<th>ROOM TYPE</th>
<th>Single</th>
<th>Double</th>
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</thead>
<tbody>
<tr>
<td>Guest Room</td>
<td>355++</td>
<td>395++</td>
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</tbody>
</table>

Notes:

- Room rates include one (1) or two (2) daily buffet breakfasts.
- Room rates include in-room wireless access.
- The above room rates are subject to Service Charge 10% and Service Tax 6%.
- Rates quoted are for guests of the Society of Petroleum Engineers (SPE).
- Room reservations will be accepted on a first-come first-served basis and room type and preferences are subject to availability.

Visa

Event attendees travelling to Malaysia must be in possession of passports valid for a least six (6) months with proof of onward passage out of the country. Information on Malaysia visa requirement can be found at http://www.imi.gov.my/index.php/en/main-services/visa/visa-requirement-by-country. Visa requirements depend on the country of origin. Please check with your travel agent, or the Malaysia Embassy or Consulate on regulations relating to immigration/visa before your departure.

An invitation letter to facilitate the application of visa will be issued to registered attendees if required. Please send the request to Faezah Saaban at fsaaban@spe.org.

Please note that it is the sole responsibility of the attendee to obtain the necessary paperwork for entry into Malaysia. The invitation letter does not guarantee that you will be granted a visa.

Sustainability

The Society of Petroleum Engineers (SPE) is committed to ensuring that the environmental impact of our events is kept to a minimum. We aim to make progress in the field of sustainability through reducing energy usage, promoting eco-friendly mobility, reducing water consumption, and limiting waste – all core values in keeping with those of the oil and gas industry.

Attendees are encouraged to use the recycling points to minimise the waste from the event.

go.spe.org/20SM01S
The Society of Petroleum Engineers (SPE) is a not-for-profit organisation. Income from this event will be invested back into SPE to support many other Society programmes. When you attend an SPE event, you help provide even more opportunities for industry professionals to enhance their technical and professional competence. Scholarships, certification, the Distinguished Lecturer program, and SPE’s energy education programme Energy4me are just a few examples of programmes that are supported by SPE.

Contacts

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International Conference & Exhibition Professionals (iCEP)
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Fax: +60 3 2172 3535
Email: editorial@icep.com.my

Visit go.spe.org/20SM01S to register for the SPE Symposium: Asia Pacific HSSE-SR