Symposium Overview

Seismic has emerged as a key enabling discipline bringing value throughout the oilfield life cycle by extending the field life, enhancing production, maximizing recovery & efficiency ratios and assisting asset risk management. Through integration with other disciplines, it brings spatial information and extra dimensions to support reservoir characterization, reservoir management, reservoir surveillance and production management decisions. Its business impact is increasingly appreciated in the industry and it has demonstrated its huge potential in assisting safe drilling, reservoir management and production enhancement strategy as well as in efficient exploitation of unconventional resources.

Objective

The three-day international symposium, scheduled to take place from 20–22 April 2015 in Kuala Lumpur, will see participation by industry experts, technology providers and academia and aims to share the latest technology developments, best practices, opportunities and challenges of seismic application in Integrated Reservoir Management (IRM) workflows. It will provide a forum for close interaction among seismic technology leaders and users through keynote speeches, technical paper presentations and informal discussions focusing on regional issues, solutions, workflows and best practices to maximize the seismic value of information in the E&P value chain. The event is expected to set a roadmap for more effective reservoir scale seismic applications in the E&P value chain in the Asia Pacific region.
Seismic Driven Reservoir Characterization and Production Management 3

Poster presentations - Monday 20 April

**Prince 2 (Ballroom), Level 3**

**POSTER SESSION 1**

**M. Flynn** (Hess)

14:30 25141 - Hybrid Seismic Waveform Classification: Technique and Additional Features - A.S.A. Rahmat* (PETRONAS), B.M. Arshin (PETRONAS), A.R. Ghazali (PETRONAS) & M.A. Ishak (PETRONAS)

23618 - Detection of Fault and Fracture using Seismic Diffraction and Behavior of Diffraction Hyperbola with Velocity and Time - Y. Bashir* (Univeristi Teknologi PETRONAS), D. Ghosh (Universiti Teknologi PETRONAS) & C.W. Sum (Universiti Teknologi PETRONAS)

25506 - Focusing Inversion Based Spectral Analysis for Reservoir Characterization - T. Konuk* (PETRONAS Carigali Sdn Bhd) & A.R. Ghazali (PETRONAS Carigali Sdn Bhd)

25601 - Reducing Uncertainties in Field Development by Integrating Stratigraphic Interpretation and Seismic Inversion - N.F. Azizan* (PETRONAS Carigali), S. Rajput (Baker Hughes Incorporated, Kuala Lumpur) & M. Ring (Baker Hughes Incorporated, Kuala Lumpur)

24675 - Application of Attribute for Seismic Phase Detector - S. Prajapati* (Universiti Teknologi PETRONAS) & D. Ghosh (Universiti Teknologi PETRONAS)

Oral presentations - Tuesday 21 April

**Prince 2 (Ballroom), Level 3**

9:00 Technical Keynote 3 - Integration for Reservoir Characterization: Technology to People - D. Johnston (ExxonMobil Production Co.)

**SESSION 4: SEISMIC QI TECHNOLOGY & ATTRIBUTES**

R.K. Pathak (PETRONAS)

09:45 23855 - Rock Physics Constraints on Seismic Inversion - M. Sams* (Ikon Science) & D. Saussaux (Ikon Science)

10:15 25600 - An Interpretative AVA Modelling Based Approach for Derisking Hydrocarbon Prospect - S. Singh* (PETRONAS Carigali), S. Rajput (Baker Hughes Incorporated, Kuala Lumpur), N.F. Azizan (PETRONAS Carigali), R.K. Pathak (PETRONAS Carigali) & M. Ring (Baker Hughes Incorporated, Kuala Lumpur)

10:45 Coffee break

**SESSION 5: SEISMIC QI TECHNOLOGY & ATTRIBUTES**

D. Ghosh (Universiti Teknologi PETRONAS)

11:00 25132 - Unmasking Gas Cloud Effects to Reveal Complex Fluvial System using Advanced Waveform Classification - A.R. Ghazali (PETRONAS Carigali Sdn Bhd), B.M. Arshin* (PETRONAS Carigali Sdn Bhd) & N.M. Nor (PETRONAS Carigali Sdn Bhd)


12:00 25592 - The Advantage of Cascading Deterministic Inversion and Pre-Stack Stochastic Inversion for Deep Water Thinly Bedded Reservoirs Characterization - A.A. Nurhono* (PEG), R. Masoudi (MPM), S.T. Goh (MPM), P. Miller (SLB), C. Hobbs (SLB), S.A. Berhanu (SLB), L. Souche (SLB) & B. Kantaastmadja (MPM)

12:30 Lunch break

**SESSION 6: SEISMIC QI TECHNOLOGY & ATTRIBUTES**

D. Johnston (ExxonMobil)


14:00 25597 - Seismic Characterization of Carbonate Build-up Reservoirs - A Case History from Central Luconia, Sarawak Basin, Malaysia - W.L. Lew* (PEG), E. Semiring (PEG), A. Amdan (PEG) & A. Tarang (PEG)

14:30 25598 - Reservoir Characterization using 3D 4C OBC Seismic Dataset in Sepat Field, Malay Basin, A First in PCSB - Y.B.M. Yusoff* (PETRONAS Carigali), N.A.M. Radzi (PETRONAS Carigali), A. Khalil (PETRONAS Carigali) & A. Amdan (PETRONAS Carigali)

15:00 Coffee break & Poster Sessions

16:20 Technical Keynote 4 - Exploration to Reserves and Production: The Monetization Highway - D. Timko (Gaffney, Cline & Associates)

17:00 Close of day 2

Poster presentations - Tuesday 21 April

**Prince 2 (Ballroom), Level 3**

**POSTER SESSION 2**

A.R. Ghazali (PETRONAS)

15:20 24634 - Lithology Impedance Attribute to Identify LRLC Zone Based on Well Log - A. Kumar* (Beicip Technology Solutions), Z. Harith (Beicip Technology Solutions), K. Kamarudlin (Beicip Technology Solutions), A. Mohd Ramli (Beicip Technology Solutions) & A. Kolupaev (Beicip Technology Solutions)

25598 - Approaches to Integrate Seismic Data into Geocellular Modeling, Angsi Field Case Study - J.A.P. Torres* (PEG)

24854 - Resolution Detection and Quantification - M. Sams* (Ikon Science Ltd)

23357 - Mikrotremor Survey to Find New Oil Pool in Limau Field - Y. Wismoyo* (Pertamina EP) & B.E. Nurcayha (Gadjah Mada University)

23668 - Reservoir Characterization in Offshore Gulf of Thailand: Distinguishing Reservoir Sands Through Elastic Inversion - S. Rajput* (Baker Hughes Incorporated, Kuala Lumpur), L. Collins (Baker Hughes), I. Martin (Baker Hughes) & T. Tyler-Jones (Maersk Oil)

23673 - Reservoir Characterization by Integration of Seismic and Production Data - V. Ivanov* (ADCDO), R. Iskandar (ADCDO) & A. Mohatresh (ADCDO)

23675 - Successful Delineation of Sand Bodies in an Area of Limited Seismic Reflectivity – A Study from the Western Timor Sea - P. Kaewprain* (PTT Exploration and Production pcl), H.I. Sogrenes (PTT Exploration and Production pcl), K. Susuuttiya (PTT Exploration and Production pcl), K. Kongkuik (PTT Exploration and Production pcl), E.P. Woods (PTT Exploration and Production pcl) & S. Ronghe (DownUnder GeoSolutions)

23666 - 4D Forward Modeling to Optimize a Closed-loop Seismic Reservoir Monitoring Framework – L. Letk* (Schlumberger), K. Eggenberger (Schlumberger), D. Hill (Schlumberger), D. Lowden (Schlumberger), K. Westeng (Schlumberger) & P. Smith (Schlumberger)
### Oral presentations - Wednesday 22 April

**Prince 2 (Ballroom), Level 3**

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<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>9:00</td>
<td>Technical Keynote 5 - Geostatistics and Rock Physics for Seismic-constrained 3D Earth Modelling</td>
<td>P. Doyen (CGG)</td>
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<tr>
<td>09:30</td>
<td>SESSION 7: AVO &amp; STOCHASTIC INVERSION</td>
<td>M. Sams (Ikon Science)</td>
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<tr>
<td>10:00</td>
<td>23274 - Rock Physics Driven Joint Impedance and Seismic Inversion</td>
<td>M.A.C. Kemper* (Ikon Science) &amp; J. Gunning (CSIRO)</td>
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<td>10:30</td>
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<tr>
<td>10:50</td>
<td>SESSION 8: AVO &amp; STOCHASTIC INVERSION</td>
<td>P. Doyen (CGG)</td>
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<tr>
<td>11:20</td>
<td>23828 - Highly Detailed Reservoir Characterization of Tight Thin Sandstone through Geostatistical Inversion in a Gas Field China</td>
<td>J.X. Bi (Sinopec), H.L. Liu (Sinopec), J. Chen (Sinopec), F.Y. Huang* (CGG), M. Li (CGG) &amp; S.P. Liu (CGG)</td>
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<tr>
<td>11:50</td>
<td>23652 - Seismic Probabilities and Multi-point Geostatistics: A Successful Solution to Model a Complex Depositional Environment</td>
<td>R. Chiarelli* (Eni Spa), S. Salerno (Eni Spa), D. Cappello (Eni Spa), M. Pontiggia (Eni Spa) &amp; C. Tarchiani (Eni Spa)</td>
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<tr>
<td>12:20</td>
<td>Lunch break</td>
<td></td>
</tr>
<tr>
<td>13:30</td>
<td>SESSION 9: 4D &amp; RESERVOIR MANAGEMENT</td>
<td>R.D. Tewari (PETRONAS)</td>
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<tr>
<td>14:00</td>
<td>25090 - Joint Spectral and Elastic Inversion Analysis in Managing Production from Complex Reservoir</td>
<td>S.N.A Mustaffa* (PETRONAS), A.R. Ghazali (PETRONAS), Y.K. Amin (PETRONAS) &amp; B.M. Arshin (PETRONAS)</td>
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<tr>
<td>14:30</td>
<td>25607 - Integration of 4D Seismic improves Quality of History Match and Location of Bypassed Oil - A Step Change in Dynamic Simulation</td>
<td>D. Arsanit* (PETRONAS), I. Jamaldin (PETRONAS), W. Suwarlan (PETRONAS) &amp; R.D. Tewari (PETRONAS)</td>
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<tr>
<td>15:00</td>
<td>Coffee break</td>
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<tr>
<td>15:20</td>
<td>Technical Keynote 7 - Hi-Res Seismic &amp; Petrophysics Driven Subsurface Reservoir Modelling</td>
<td>D. Gosh (Universiti Teknologi PETRONAS)</td>
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<tr>
<td>15:50</td>
<td>PANEL DISCUSSION</td>
<td>L. Bourdon (Shell) &amp; N. Rahman (PETRONAS)</td>
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<tr>
<td>16:30</td>
<td>Closing Remarks</td>
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<tr>
<td>17:00</td>
<td>End of the Workshop</td>
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### Short Course

**Seismic Reservoir Characterization: An Earth Modelling Perspective**  
23-24 April 2015, 09:00 – 17:00 hrs  
Instructor: Philippe Doyen, PhD (CGG)

**Course Description**

Three-dimensional numerical earth models play an increasingly important role in the E&P industry to improve reservoir management and optimise hydrocarbon recovery. A key challenge for reservoir geophysicists is the quantitative integration of 3-D and 4-D seismic data in static and dynamic earth modelling workflows. Using a combination of theory and illustrations based on a broad range of case studies, the two-day course will review current best practices and future challenges for constraining earth models with seismic information. Emphasis will be placed on seismic data integration in the context of seismic-to-simulator workflows. Topics covered include the construction of stratigraphic grids from interpreted seismic horizons and faults, deterministic and stochastic elastic inversion, cascaded petrophysical inversion and many more.

**About the instructor**

Philippe Doyen received a PhD in Geophysics from Stanford University in 1987. He is currently Product Manager for Seismic Reservoir Characterization and is based in London. He has also been recently appointed part-time Adjunct Professor at the University of Bergen in Norway. Dr. Doyen has over twenty years R&D experience in reservoir geophysics, geostatistics, earth modelling and rock physics. He has developed a number of geostatistical techniques for seismic-guided rock property prediction, stochastic reservoir modelling and subsurface uncertainty quantification. He has managed the development of several software products for geostatistical earth modelling from seismic data, seismic inversion and data visualization. He has a broad experience in geo-technical consulting and seismic reservoir characterization projects management. He served as EAGE Distinguished Lecturer in 1998.

**Venue and accommodation**

Prince Hotel & Residence Kuala Lumpur  
No. 4, Jalan Conlay,  
50450 Kuala Lumpur, Malaysia  
W: http://www.princehotelkl.com/

<table>
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<th>Room Type</th>
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<tr>
<td>Deluxe Room (Single)</td>
<td>MYR390++/night</td>
</tr>
<tr>
<td>Deluxe Room (Twin)</td>
<td>MYR430++/night</td>
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In order to avail this competitive rate, kindly download the Hotel Booking Form on the event page and confirm your reservation by 6 April 2015.
Registration

Workshop

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<th>Registered and paid</th>
<th>Until 28/02/2015</th>
<th>01/03/2015-20/04/2015</th>
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<tr>
<td>Member</td>
<td>€ 595 / MYR 2590</td>
<td>€ 655 / MYR 2850</td>
<td>€ 720 / MYR 3140</td>
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<td>Non-member&lt;sup&gt;1&lt;/sup&gt;</td>
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<td>€ 755 / MYR 3290</td>
<td>€ 820 / MYR 3570</td>
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<td>Student&lt;sup&gt;2&lt;/sup&gt;</td>
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<td>€ 350 / MYR 1530</td>
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Two-day short course

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</table>

The EAGE members’ rate is only applicable if the membership dues for 2015 have been paid.
1. The membership is included in the non-member fee.
2. To qualify for the reduced fee, a copy of your student identification card at a geoscience institute must be submitted together with this registration form.

Please note that EAGE reserved the right to cancel the workshop or short course due to low participation. In that case, payment will be refunded in full.

Social programme

Workshop dinner

Tuesday 21 April 2015
19:00 - 22:00 hrs

A dinner for all delegates will be held in a premier dining venue in Kuala Lumpur. This dinner is included in the symposium fee.

Contact

For more information or enquiries about this symposium please visit the event’s website (www.eage.org) or contact the EAGE Regional Office Asia Pacific via asiapacific@eage.org.

We hope to see you in Kuala Lumpur!

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