

EAGE

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ASSOCIATION OF
GEOSCIENTISTS &
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AAPG
Asia Pacific Region



EAGE/AAPG Digital Subsurface For Asia Pacific Conference

7-10 SEPTEMBER 2020 • ONLINE

- **Technical Programme**

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TECHNICAL COMMITTEE

Eric Andersen (Chairperson)	PETRONAS
Dylan Mair (Co-Chairperson)	IHS Markit
Darryl Harris (Co-Chairperson)	Woodside Energy Ltd
Paul Zwartjes	Aramco Overseas Company BV
Jimmy Ting	CGG
Francisco Ortigosa	Consultant
Vladimir Puzyrev	Curtin University
Eirik Larsen	Earth Science Analytics
Claire Emma Birnie	Equinor
Nikita Bukhanov	Gazpromneft NTC
Boris Belozero	Gazpromneft NTC
Izzat Fauzi	Halliburton
Jan van de Mortel	Independent Consultant
Francois Baillard	Iraya Energies
Ali Hajian	PETRONAS Group Digital
Zuraidah Moh Nor	PTTEP
Siti Zubaidah Abu Bakar	Repsol
Bill Abbott	Schlumberger
Balaji Chennakrishnan	Telesto Energy

CONFERENCE OVERVIEW

This event will showcase digital subsurface studies and workflows enabled by data science and delivered by a workforce equipped to handle next generation E&P. How digital transformation using subsurface data creates value in the oil and gas industry. As we constantly break new ground, the scope is broad but subsurface data should underpin your results. Data science makes some of its biggest discoveries by integrating many parts so the elements below represent the scope of the whole event and not individual sessions. EAGE APAC's 1st virtual conference of the year, this event is the 2nd edition of the EAGE Workshop on Machine Learning 2019 that hosted over 200 participants last year.



CONFERENCE HIGHLIGHTS

Keynote Talks:

- The Opportunities and the Challenges Woodside Experienced - Neil Hookway (Woodside Energy)
- The Future-Proof E&P Company - David Hicks (IHS Markit)
- Respond, Recover and Reimagine with the New Digital Workforce - Darryl Willis (Microsoft Corporation)

Executive Plenary Session: Painting the E&P Company of the Future

- Moderators: Chen Kah Seong (PETRONAS), David Hicks (IHS Markit)
- Panel: Marie-Hélène Ben Samoun (Boston Consulting Group), Maurice Nessim (WesternGeco), Dave Wisenteiner (Microsoft), Darryl Harris (Woodside Energy Ltd)

Special Session: Successes and Pitfalls of Subsurface Digital Workflow Initiatives

- Moderator: Tim Johnson (PETRONAS Carigali)
- Panel: Norbert Dolle (White Space Energy), Therese Rannem (Neptune Energy), Nina Marie Hernandez (Iraya Energies)



TECHNICAL PROGRAMME

Oral Presentations | Monday 7 September

DAY 1	
08:30	Introductory Remarks
09:00	Opening Remark - E. Andersen ¹ PETRONAS Carigali Sdn Bhd
09:10	Keynote 1: The Opportunities and the Challenges Woodside Experienced - N. Hookway ^{1*} ¹ Woodside Energy
Session 1: Digital Reimagining Subsurface Session Chairs: B. Chennakrishnan (Telesto Energy PTE. LTD.), I. Fauzi (Halliburton)	
09:40	21. A Geological Regional Case Study for Pressure, Temperature, and Salinity for the GoM using Machine Learning Technology on Unstructured Data - C. Mamador ^{1*} , J.O. Aranda ¹ , N.E. Arif ¹ , N.M. Hernandez ¹ , F. Baillard ¹ ¹ Iraya Energies
10:05	23. A Case Study of Fully Automated Machine Learning Petrophysical Interpretation Using Unstructured Data - S. Karim ^{1*} , P. Lucanas ¹ , A. Nadrah Szali ¹ , N.M. Hernandez ¹ , F. Baillard ¹ ¹ Iraya Energies
10:30	35. Automated Production Optimisation and Forecasting using Machine Learning - S. Reddy ^{1*} ¹ Telesto Energy PTE. LTD.
10:55	32. Case Study: Predicting Missing Recorded Well Logs using Classification and Regression Methodology - R. Thiyagu ^{1*} , M.Y.M. Yusman ² , M. A. M. Nazmi ³ , A. A. Amirsaman ⁴ , T. Shaur ⁴ ¹ Independent; ² Emerson; ³ Property; ⁴ University Malaya
11:20	Virtual Networking Session
Session 2: Digital Reservoir Session Chairs: J.H. van de Mortel (Independent), P.M. Zwartjes (Aramco Overseas Company)	
14:00	Introductory Remarks
14:30	10. Well Placement Strategies Evaluation Based on Exploration Game Challenge - E. Grishnyaev ^{3*} , Y. Paveleva ¹ , N. Klimenko ¹ , A. Volkova ² , N. Bukhanov ^{1,2} , A. Orlov ³ , M. Ozhgibesov ³ ¹ LLC GazpromNeft STC; ² Tomsk Polytechnic University; ³ LLC Perfect Art
14:55	26. An Optimization Method for the Assisted History Matching (AHM) Process using the Gradient Boosting Approach - M. Melnikov ^{1*} , G. Shishaev ¹ , I. Matveev ¹ , G. Ereman ¹ , V. Demyanov ² , N. Bukhanov ¹ , B. Belozero ³ ¹ Tomsk Polytechnic University. Petroleum Learning Center; ² Heriot-WattUniversity; ³ LLC Gazpromneft STC
15:20	27. Running Reservoir Simulations in the Public Cloud; A Case Study of a Cost-Controlled Method, Running tNavigator and Eclipse in an Azure HPC environment. - M. Stordalen Flister ^{1*} , K. Hopstaken ¹ Cegal
15:45	33. Reservoir Rock Typing Using Unsupervised Clustering Techniques - S.Bakdi ^{1*} ¹ Telesto Energy PTE. LTD.
16:10	Virtual Networking Session

Oral Presentations | Tuesday 8 September

DAY 2	
08:30	Introductory Remarks
09:00	Keynote 2: The Future-Proof E&P Company - D.Hicks ^{1*} ¹ IHS Markit
Executive Plenary Session Chairs: K. S. Chen (PETRONAS), D. Hicks (IHS Markit)	
09:30	Painting the E&P Company of the Future - M. Nessim ^{1*} , D. Wisenteiner ^{2*} , D. Harris ^{3*} , M. H. B. Samoun ⁴ ¹ WesternGeco; ² Microsoft; ³ Woodside Energy Ltd; ⁴ Boston Consulting Group
11:00	Virtual Networking Session

Special Session

Session Chair: T. Johnson (PETRONAS Carigali Sdn. Bhd.)

14:00	Introductory Remarks
14:30	Successes and Pitfalls of Subsurface Digital Workflow Initiatives - N. Dolle ^{1*} , T. Rannem ^{2*} , N.M.Hernandez ^{3*} ¹ White Space Energy; ² Neptune Energy; ³ Iraya Energies
16:00	Virtual Networking Session

Oral Presentations | Wednesday 9 September

DAY 3	
08:55	Introductory Remarks
09:00	Respond, Recover and Reimagine with the New Digital Workforce - D.Willis ^{1*} ¹ Microsoft Corporation
Session 3: Deep Learning in Geoscience Session Chair: F. Baillard (Iraya Energies), A. Hajian (PETRONAS Group Digital)	
09:30	17. Missed Pay Identification using Machine Learning - A Case Study - D. Stoddart ^{1*} , G. Valeras ¹ , A. Papapostolou ¹ , G. Xenogiannopoulos ¹ , D. Oikonomou ¹ , B. Alaei ¹ , D. Austin ¹ , E. Larsen ¹ , I. Martin ² , E. Zabihi Naeini ¹ ¹ Earth Science Analytics; ² Oil and GasTechnology Centre
09:55	29. Well Log Data Augmentation Influence at Accuracy of Machine Learning Interpretation - A. Semenikhin ^{1*} , A. Shchepetnov ¹ , A. Karavaev ² , D. Egorov ² , O. Osmonaliev ² ¹ IBM; ² Gazpromneft
10:20	30. Deep Machine Learning Application for Supervised Facies Classification - R.P. Amarullah Bekti ^{1*} ¹ CGG
10:45	41. Machine-Learning-Driven Dispersion Curve Picking For Surface-Wave Analysis, Modelling, and Inversion - A.Kaul ^{1*} ¹ Schlumberger
11:10	Virtual Networking Session
Session 4: Seismic Processing Workflows Session Chairs: N.V. Bukhanov (LLC Gazpromneft STC), V. Puzyrev (Curtin University)	
14:25	Introductory Remarks
14:30	22. Seismic Processing Workflow Improvements with AI - P. Zwartjes ^{1*} , R. Baardman ¹ , R. Hegge ¹ ¹ Aramco Overseas Company
14:55	15. Uncertainty Quantification for Deep Learning in Geoscience Applications - L. Mosser ^{1*} , S. Purves, E. Zabihi Naeini ¹ ¹ Earth Science Analytics
15:20	11. Reducing Turnaround by Automating Velocity Model Building using a Big Data Approach - T. Martin ¹ , M. Bell ¹ , T. Massip ^{1*} ¹ PGS
15:45	Virtual Networking Session



Oral Presentations | Thursday 10 September

DAY 4	
Session 5: Machine Learning Applications for Reservoir Characterization Session Chairs: J.C.S. Ting (CGG), F. Baillard (Iraya Energies)	
10:55	Introductory Remarks
11:00	14. A Novel Subsurface Characterization Algorithm Parameterized in Terms Familiar to Geoscientists - R. Ross ^{1*} , A. Jakobsen ¹ , H. Hansen ¹ ¹ Qeye
11:25	24. Deep Convolutional Autoencoder for Unsupervised Seismic Facies Classification - V. Puzyrev ^{1*} , C. Elders ¹ ¹ Curtin University
11:50	20. A Semi-Supervised Learning Framework for Seismic Acoustic Impedance Estimation - H. Di ^{1*} , X. Chen ¹ , H. Maniar ¹ , A. Abubakar ¹ ¹ Schlumberger
12:15	34. Seismic Facies Classification using Generative Topographic Mapping and Self Organizing Maps - A.K. Ray ^{1*} , R. Dandapani ¹ , S. Verma ² ¹ Telesto Energy Pte. Ltd.; ² UTPB
12:40	Virtual Networking Session
Session 6: Big Data and Learning Session Chairs: J.V.D. Mortel (Independent), B. Chennakrishnan (Telesto Energy Pte. Ltd.)	
14:25	Introductory Remarks
14:30	37. Tech Age Approach to Integrate Academia, Industry and Associations & Community. - R. Thiyagu ^{1*} , N. Jackie ² ¹ Independent; ² PETRONAS
14:55	39. The Future of Data Recording, Transport and Storage In The Oil Sector - G.Holmes ^{1*} ¹ Tape Ark
15:20	7. An Integrated Solution on Cloud - F.A.Khan ^{1*} , N.N.H.C.Soh ¹ ¹ PETRONAS Carigali Sdn Bhd
15:45	9. Computational Approach for Data-Driven Mining of Upstream Value-added Structures - N. Bukhanov ^{1,2*} , P. Trudkov ¹ , E. Vinogradova ¹ , I. Derevitskii ² , K. Balabaeva ² , A. Funkner ² , S. Kovalchuk ² ¹ LLC Gazpromneft STC; ² LTMO University
16:10	Closing Ceremony
16:20	Virtual Networking Session

HOW TO JOIN THE CONFERENCE

The virtual conference will be hosted on the Event OnAir platform. A few days prior to the event day, all registered and paid attendees will receive the Attendee Pack which will consist of the virtual lobby link to join the conference and the event guidelines. All attendees are advised to follow the event guidelines for the optimal event experience. This virtual conference will be held in the local timezone (Kuala Lumpur, UTC +8).

REGISTRATION

REGISTERED AND PAID	
EAGE Members / AAPG Members	€ 250
Non-Member	€ 350
EAGE Student Member & AAPG Student Member	€ 125
Student Non-Member	€ 150

Members please note:

To qualify for the member registration fee, your EAGE membership dues for 2020 must have been paid and confirmed. The processing time for membership applications or renewals is 10 working days.

To qualify for the reduced student registration fee:

- Students must be enrolled in a full time study programme at a recognized university or institute
- The registration must be accompanied by a copy of a student ID card and/or official proof of enrolment

The non-member fee includes EAGE membership for the remainder of 2020. This membership will be activated shortly after the event.

Student non-members cannot be older than 34 years of age (when registering).

EAGE registration fees differentiate between EAGE members and non-members. In the table above you can see what the different fees are.

All fees are in Euros (€). One Euro of your total registration fee is donated to the EAGE Green Fund.

MAIN SPONSORS



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See you at the virtual conference!

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