

# spwla today

## SEE YOU IN STAVANGER!

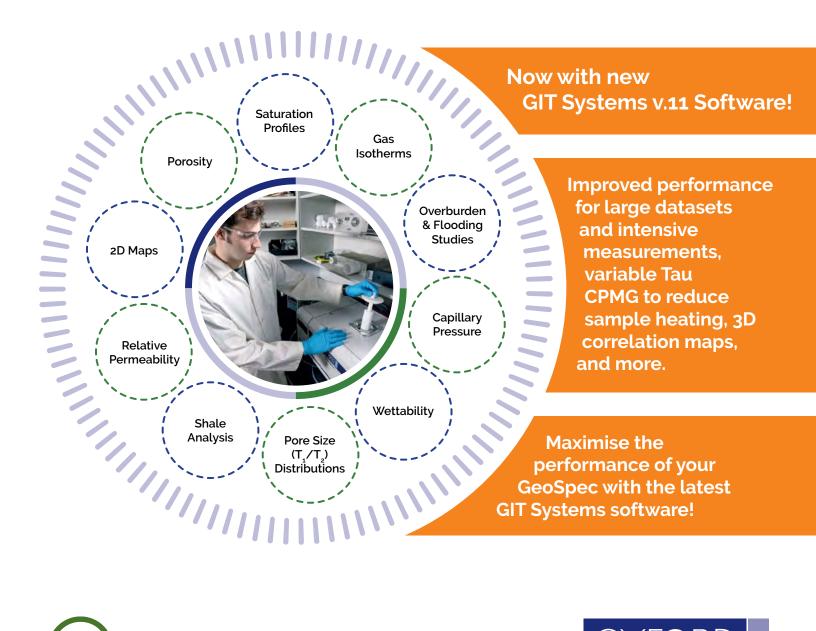


VOLUME 5 - ISSUE 3

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#### The Society of Petrophysicists and Well Log Analysts Board of Directors 2021–2022



President **Katerina Yared** SM Energy Highlands Ranch, CO, USA (+1) 720-431-7482 President@spwla.org

President-Elect

**Tegwyn Perkins** 

Lloyd's Register

Houston, TX, USA

(+1) 713-670-4976



VP Finance, Secretary, and Administration Adam Haecker Continental OKC, OK USA (+1) 979-587-1061 VP-Finance@spwla.org

**VP Publications** Songhua Chen Halliburton Houston, TX, USA (+1) 281-687-9559 VP-Publications@spwla.org

VP Information Technology

Harry Xie

Houston, TX USA

**VP Social Media** 

Mathilde Luycx

Houston, TX USA

ExxonMobil

(+1) 713-328-2768

VP-InfoTech@spwla.org

VP-SocialMedia@spwla.org

CoreLab

**VP Technology** Carlos Torres-Verdin University of Texas at Austin Austin, TX, ÚSA (+1) 512-471-4216 VP-Technology@spwla.org

President-Elect@spwla.org



**VP Education** Fransiska Goenawan Halliburton Houston, TX, USA (+1) 346-401-8201 VP-Education@spwla.org



#### **REGIONAL DIRECTORS**



N. America 1 Robin Slocombe Schlumberger Houston, TX, USA (+1) 281-690-0837 Director-NA1@spwla.org

N. America 2

Schlumberger

Matthew Blyth

Houston, TX USA

(+1) 832-444-4206



Middle East/Africa Nelson Suarez Roccia Energy Mexico City, Mexico (+1) 786-458-7130 Director-ME@spwla.org

Asia and Australia **Ryan Lafferty** Consultant Bangkok, Thailand Director-Asiapacific@spwla.org

**Executive Director** 

Houston, TX 77017

(+1) 713-947-8727

sharon@spwla.org

Sharon Johnson

SPWIA



Latin America **Bruno Menchio Faria** Rio de Janeiro, Brazil (+55) 219-9140-150 Director-LA@spwla.org

Director-NA2@spwla.org



Europe Eva Gerick Neptune Energy Aberdeen, United Kingdom (+44) 799 958 0218 Director-Europe@spwla.org



Managing Editor Elizabeth Naggar (+1) 713-444-3495 editor@spwla.org

**Publication Manager** Anna Tarlton InkSpot Printing 2301 S. Shaver Pasadena, TX 77502, USA (+1) 713-472-1100 orders@inkspotprinting.com

Notice: Articles published in SPWLA Today are not subject to formal peer review but are subject to editorial review and are verified for technical consistency and relevance.

#### **CALENDAR OF EVENTS**

#### May 11, 2022

Nuclear Logging SIG Technical Meeting – Part 2 Online Webinar www.spwla.org

#### May 11, 2022

**Resistivity SIG Spring Meeting BP** Campus Katy, Texas Resistivity SIG Webpage

#### May 17–18, 2022

Petrophysical Multimineral Analysis Training Series (English) Instructor – Patricia E. Rodrigues SeisPetro Geoconsulting Online Webinar www.spwla.org

#### June 10–15, 2022

SPWLA 63rd Annual Symposium Clarion Hotel Energy Stavanger, Norway www.spwla.org

#### **September 2, 2022**

Acoustics SIG Borehole Acoustics: The Road Ahead Houston, TX Acoustics SIG Webpage

#### October 6–7, 2022

NMR SIG Fall Conference Houston, TX NMR SIG Webpage

#### About the Cover

Spring has sprung in Norway! We can't wait to see you soon at the 2022 SPWLA Annual Symposium in Stavanger, Norway from June 11 through 15.

#### **From the President**



Katerina Yared 2021-2022 SPWLA President

Dear SPWLA members,

I hope this letter finds you all in good health! I can't believe how fast a year passes when you are having fun!

I want to send out congratulations to all the newly elected board members. It was another tough election this year with so many close votes. I know Tegwyn will have a great team of people helping him out next year, and I wish you great success in navigating through 2022–23 together!

I also want to congratulate all the well-deserving winners of the prestigious SPWLA awards brought forth by the nominations committee led by our past president, Jim Hemingway! The board voted on all proposed nominations with a majority vote. Also, the SPWLA Board of Directors voted by majority vote for the Norwegian Formation Evaluation Society (NFES) to be awarded the SPWLA 2021–22 Best Professional Chapter award. And, for the second time in a row, because they are really hard to beat, the award for the Best Student Chapter goes to the Universidad Industrial de Santander (UIS) Student Chapter. Believe me, if our governments were run like this student chapter, we would all be in a better place!

SPWLA 2021-2022 Award	Recipients
Gold Medal for Technical Achievement	Carl Sondergeld
Distinguished Technical Achievement Award	Mark Ma
	Mark Alberty
	Dzevat Omeragic
Meritorious Technical Achievement Award	Siddharth Misra
Young Professional Technical Award	Artur Posenato Garcia
	Stephanie Perry
	Qiong (Sabrina) Zhang
Medal of Honor for Career Service	Not Awarded
Distinguished Service Award	Iulian N. Hulea
	Zhipeng (Zach) Liu
	Jesus Salazar
Meritorious Service Award	Mike Millar
	Lesley Evans
	Lei Fu

#### CONGRATULATIONS TO ALL !!!

#### **From the President**

Now I would like to thank everyone that helped me during my 2021–22 presidency in giving a voice to our petrophysics community and that includes but is not limited to all of my Board of Directors (in no particular order): Tegwyn, Fransiska, Songhua, Carlos, Harry, Mathilde, Adam, Robin, Matt, Bruno, Nelson, Eva, and Ryan. You have been my dream team, and I am very grateful to have worked alongside you. Thank you for your time and unending efforts—a lot of love to you all. To the new board, you know I am just a phone call away.

I hope to see you all in person in Stavanger next month! Ser deg snart! Ha det!

Yours truly,

Katerina Yared SPWLA President 2021–2022



#### From the Editor



Songhua Chen 2021–2022 Vice President Publications

Greetings and welcome to the May 2022 issue of *SPWLA Today*. There is a lot going on in the world, in the industry, and in the SPWLA.

First off, the SPWLA leadership expresses our deeply felt sympathy and solidarity with Ukrainians suffering an invasion of their country. We join the world in condemning aggression and violence and encourage all efforts for peace.

As a society focused on technical advancements and knowledge-sharing worldwide, we hope for a peaceful resolution to the conflict in Ukraine and a cessation of hostilities soon. This message is shared on the SPWLA website, along with a list of links for supporting Ukrainians in their fight for freedom and peace.

On the society level, we just had an election for the 2022–2023 SPWLA Board of Directors. I am pleased to announce that Stephanie Perry has been elected to be the next Vice President of Publications and, thus, the editor for *SPWLA Today* and *Petrophysics*. She brings a lot of combined experience in geology, geophysics, and petrophysics. This broad bandwidth of knowledge is certainly much more desired for the role of the *Petrophysics* journal editor, as the journal covers all facets

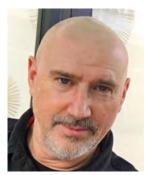
of formation evaluation technologies involving all these disciplines. Congratulations, Stephanie! We will count on everyone's continued support of Stephanie, as you always generously did for me. Thank you!

The greatest support we always look for from all members is sharing your professional and career stories in *SPWLA Today*, and your technical knowledge, discoveries, and successful applications in the *Petrophysics* journal. We try to have breadth in the *Petrophysics* journal coverage and, from time to time, dedicate a special issue for a topic with rising interest. For instance, the upcoming June issue is a special issue on NMR. We are also making an effort to engage regional conference, workshop, and symposium authors to submit their work to *Petrophysics* to share with a much larger audience. Any suggestions for increasing submissions are welcome!

By the time this issue is in print, we are only one month away from the Stavanger symposium. After two years of holding the events online, I am glad we finally will have a physical gathering. More than that, it is in the astonishingly beautiful city of Stavanger. We look forward to seeing many of you there!

Best, Songhua Chen Vice President Publications

#### **Up Next**



Tegwyn Perkins 2021-2022 President Elect

Hello and welcome to my sixth and final column as President Elect for the *SPWLA Today* newsletter. The next time I write, I will be the President of our Society—an honor that I find truly humbling. My predecessor, Katerina Yared, has done an amazing job, and I can only hope to achieve a fraction of what she has done.

First, I want to congratulate those who have been elected to the 2022–2023 International Board of Directors (BOD) and thank those who didn't make it this time. Personally, I have lost more SPWLA elections than won, but I consider the Society to be essential for our industry, and I will continue to serve it after my time is over. I'm really looking forward to working with the new BOD and being reunited with old friends. If you have any thoughts or suggestions over the direction the SPWLA is taking, please let me know, and the new BOD will discuss them when I assume the presidency.

#### Here is the 2022–2023 SPWLA BOD in full:

President Elect: VP Technology:	Jennifer Market (Epiroc) Iulian Hulea (Shell)
VP Education:	Kelly Skuce (Core Petrophysical Consulting)
VP Finance:	Adam Haecker (Battelle)
VP Publications:	Stephanie Perry (Geomark Research)
VP Information Technology:	Harry Xie (Core Lab)
VP Social Media:	Mathilde Luycx (ExxonMobil)
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North America II:	Matt Blyth (Schlumberger)
Europe:	Eva Gerrick (Neptune Energy)

North America I:	Javier Miranda (DeGoyler and MacNaug
North America II:	Matt Blyth (Schlumberger)
Europe:	Eva Gerrick (Neptune Energy)
Middle East/Africa/India:	Jennifer Duarte (Lloyd's Register)
Latin America:	Nelson Suarez (Roccia Energy)
Asia Pacific/Australasia:	Ryan Lafferty (Consultant)

It's great to see such diversity represented here, and I can only encourage more people to get involved. We also have representatives from the mining and alternative energy domains on the board, which only shows the extent to which petrophysics is important across all subsurface domains.



Preparations are in full swing for the Annual Symposium. VP Technology, **Carlos Torres-Verdin**, and the Technical Program Co-Chair, **Iulian Hulea**, have devised an outstanding technical program. The Organizing Committee, led by **Mathias Horstmann**, has done an amazing job managing the logistics for the host venue. They have secured an excellent keynote speaker, and the field trip visits a weathered granite reservoir analog in the Bømlo area north of Stavanger (the bus journey along the coast is worth the fee alone!). I'm very tempted to attend the spouse events instead of the technical program and let's not mention the social and societal

events that are planned. Let's be honest... we have all missed an in-person symposium!

Please check out the symposium website (<u>https://www.spwlaworld.org/</u>) as we have recently updated the Technical Program, Workshops, and Field Trip pages. We have sold out of all exhibition space at the upcoming symposium. However, sponsorship opportunities are still available.

I've been keeping a close eye on the travel restrictions to Norway, and the good news is that all restrictions have been discontinued. For the latest information, please visit this <u>site</u>.

It was my pleasure to give the opening and closing addresses at the 2022 Spring Topical Conference on Petrophysical Machine Learning. This was a hybrid event with both in-person and virtual attendees to facilitate participation from outside Houston/USA

and was skillfully coordinated by the co-chairs **Fransiska Goenawan** and **Yanxiang Yu**. The event featured 21 presentations on all aspects of machine learning. We were also treated to a panel discussion on the first day and a review of the **2021 SPWLA PDDA Machine-Learning Competition** on well-log-based reservoir property estimation with machine learning on the second day.

Hot off the press! Two exciting events brought to you by SPWLA SIGs:

The **Acoustics SIG** is inviting everyone to a workshop on September 2 entitled "Borehole Acoustics: The Road Ahead." This event will be held in Houston and will be in person only. The "Call for Abstracts" has already been made, and the deadline is June 30. For more details, please visit this link.

The **NMR SIG** has announced their Fall 2022 Conference to be held on October 6–7 in Houston, USA. The Conference will happen "rain or shine" and is being planned as an "in-person conference" but with a contingency to be held as a virtual event if circumstances change. This SIG meeting will be a one- and half-day conference featuring NMR-related formation evaluation concepts and applications, advances in multidiscipline collaboration, as well as an outstanding opportunity to reconnect with NMR SIG members. More details will be published shortly.

If you are interested in getting involved with any of the SIGs, please contact me at the email address below or contact the SIGs directly at the email addresses on the spwla.org website. Alternatively, you can log in to your spwla.org account and sign yourself up for any SIG, or if you are not an SPWLA member, we have a new sign-up methodology on <u>spwlaworld.org</u> for some SIGs.

Also, if you would like to be involved in maintaining and developing the SPWLA World website, please email me. It's all volunteer work. I'm afraid there will be no remuneration, just the heartfelt thanks of your fellow SPWLA members and an entry for your resume or CV. WordPress skills would be preferred!

Gorau Chwarae Cyd Chwarae Team Play is the Best Play

Tegwyn JP Perkins +1 (713) 670-4976 President Elect 2021-2022 President-Elect@spwla.org

#### **Tech Today**



Carlos Torres-Verdín 2021-2022 Vice President Technology

#### See you in Stavanger this June!

We are almost done vetting the manuscripts submitted to the 2022 SPWLA Symposium for format conformance and clarity after their abstracts were accepted for oral or poster presentation. The next immediate step is to populate the technical program with the accepted manuscripts so that we minimize the chances of topical overlap, given that we will have dual technical sessions starting on Monday afternoon and continuing on Tuesday and Wednesday. This is not a simple task, and there is no perfect solution, but we will do our best to weave, conflate, and craft an excellent sequence of talks and sessions with ample time for mingling around and visiting the exhibit hall.

Technical workshops preceding the 2022 symposium have already been announced, eight in total: four to take place on Saturday and four on Sunday. What a feast of deep, diverse, and relevant technical content! You may want to sign up for a couple of workshops before they reach their attendance quota.



The fjords around Stavanger are truly magnificent and worth visiting (photograph by the author).

We are barely 2 months away from the annual symposium. Time has gone by too fast since the Board elections in 2021. A new Board has been elected already, and with that comes my inexorable time to say goodbye. Yes, <u>this is my last column in *SPWLA*</u> <u>Today as VP Technology</u>. I have had the honor of serving as VP Publications (twice) and VP Technology (once), both positions intimately navigating within the exciting technical ocean of the SPWLA. It is within that domain that I feel most comfortable, and it is in that sphere where I feel that I can be of best service to the SPWLA. I hope that the future gives me yet another occasion to dedicate my volunteering efforts to this excellent professional society in some technical role. In the interim, I look forward to penning technical essays for *SPWLA Today* in the near future. There are no pejoratives to convey about my experience as VP Technology, only excellent memories. I hope that the young generations of formation-evaluation specialists consider taking technical responsibility roles within the SPWLA. It is all very worth it!

#### My Farewell as VP Technology

I want to take this opportunity to recognize those who deserve my admiration and gratitude:

- I thank the SPWLA membership at large for endorsing my role as VP Technology; I believe that I will have fulfilled all my promises by the time the 2022 symposium is over in June.
- I thank the SPWLA Board of Directors for their camaraderie and for consistently acting selflessly to do the right thing for the SPWLA membership at large. This was my third yearly tenure as a member of the Board, and it was by far the best, most constructive, and most positive one! The third time was indeed a great charm!

#### **Tech Today**

- I thank our SPWLA President, Katerina Yared, for being supportive, encouraging, and respectful of several proposals I brought about to the Board as part of my tenure as VP Technology.
- I thank Stephanie Turner and Sharon Johnson for always being there to help and support the Technology Committee, especially through the long and winding road of organizing the annual symposium. Both were extremely patient, proficient, and constructive.
- I thank Tegwyn Perkins for his time and support with the many functions of the Technology Committee, especially software/internet support, and for placing no bounds on his sharing of experience and expertise as former VP Technology. He will be our next extraordinary SPWLA President.
- I thank Iulian Hulea, co-chair of the 2022 Technical Program, for his excellent teamwork, friendship, brilliant ideas, and dedication during all facets of the organization of the annual symposium. I am very glad that he will be the 2022–2023 VP Technology, marshaling continuity and sustained improvement, together with a positive and outgoing attitude.
- I heartily and exhaustively thank each and every member of the 2021–2022 Technology Committee for their unwavering help, time, acumen, and energy to carry on the panoply of work behind the scenes toward completing the technical program of the 2022 symposium. It was one of the highlights of my professional career to have worked alongside such a distinguished, motivated, and energetic group of colleagues. You rock!
- I thank the Stavanger SPWLA Chapter for always including us and working with us toward the planning of the 2022 symposium. They were great mates!
- I thank the organizers of special technical sessions for the 2022 symposium for taking full ownership of their proposals and bringing much-needed change to the technical program.
- I thank the organizers of the 2022 symposium technical workshops for being proactive in choosing topics of relevance to the SPWLA of the future.

It has been my honor and pleasure to serve as your VP Technology. Enjoy the 2022 SPWLA Symposium, and let's all of us bask in the technical laurels of our great professional society!

Carlos Torres-Verdín, PhD, Professor Brian James Jennings Memorial Endowed Chair in Petroleum and Geosystems Engineering Hildebrand Department of Petroleum and Geosystems Engineering The University of Texas at Austin <u>cverdin@mail.utexas.edu</u>



Fransiska Goenawan 2020-2022 Vice President Education

#### Hello SPWLA colleagues,

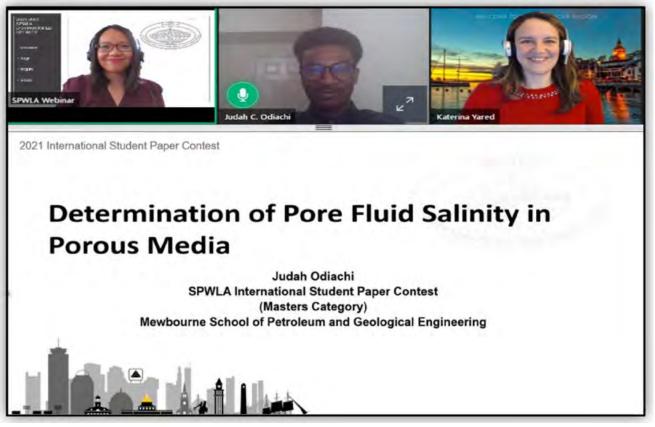
Time indeed flies so fast, and it is now time for me to write my last column. I would just like to say thank you for trusting me to serve as your VP of Education for the past 2 years. I met great people and so much enjoyed the interaction at every event. Thank you!

We will have Martin Poitzsch (Aramco Americas) for our SPWLA May Webinar on May 19 titled "Nanotags for Improved Cuttings Depth Correlation." Martin's webinar will conclude our Distinguished Speakers Webinar Series for the 2021–2022 DS series, and with this, I would like to express my sincere appreciation to all the Distinguished Speakers and Global Distinguished Speakers for your contributions to and support of this program.



The 2021–2022 SPWLA Distinguished Speakers and Global Distinguished Speakers.

We have launched a new webinar series featuring students as presenters. The student webinar is intended to be a platform for students to share their great work. The first student webinar was presented by Judah Odiachi (University of Oklahoma). He was the first winner of the 2021 SPWLA International Student Paper Contest for the master's degree category. For those who missed the webinar, please visit our SPWLA YouTube Channel to watch it.



First SPWLA Student Webinar.

Thank you to all the SPWLA students who participated in the 2022 SPWLA Internal Student Paper Contest. This year, the International Student Paper Contest (ISPC) committees received 150% greater participation than last year. This was made possible by the hard work of the local SPWLA student chapters and SPWLA Regional Directors, who actively promoted and encouraged the students to participate. Special thanks goes to the 2022 ISPC chairman, Raoof Gholami, and all ISPC judges for their willingness to volunteer their time and effort to this event. Please let me know if you are interested in being judges, too. The final round of the 2022 ISPC will be held on June 12, 2022, as part of the SPWLA Annual Symposium. So, any guess who the winners will be this year (c)?

Adam Haecker	Battelle	Katerina Yared	SM Energy
Bob Gales	Halliburton	Mark Ma	Saudi Aramco
Bruno Menchio	Menchio Petrofisica	Nader Gerges	3DP
Chandramani Shrivastava	Schlumberger	Nelson Suarez	Roccia Energy
Geoff Page	Baker Hughes	Rana samir Elghonimy	BP
Javier Miranda	D&M	Steffano Motta	Energean
Jinhong Chen	Aramco Americas	Venkat Jambunathan	Halliburton
		Weijun Guo	Halliburton

SPWLA students, be ready! Here are your 2022 SPWLA International Student Paper Contest Judges. 💮

The 2022 SPWLA Spring Topical Conference "Petrophysical Machine Leaning" went very well. I would like to thank PDDA SIG (Yanxiang Yu (Shell), Chicheng Xu (Aramco Service Company), Lei Fu (Aramco Service Company), Andy McDonald (Lloyd's Register), Bin Dai (Halliburton)), Tegwyn Perkins (Lloyd's Register), Weijun Guo (Halliburton), Siddharth Misra (Texas A&M University), and Keli Sun (Schlumberger) for organizing this conference. I would also like to express my gratitude to all speakers and participants, as well as to Halliburton, who graciously supported this first hybrid topical conference at the Halliburton campus.

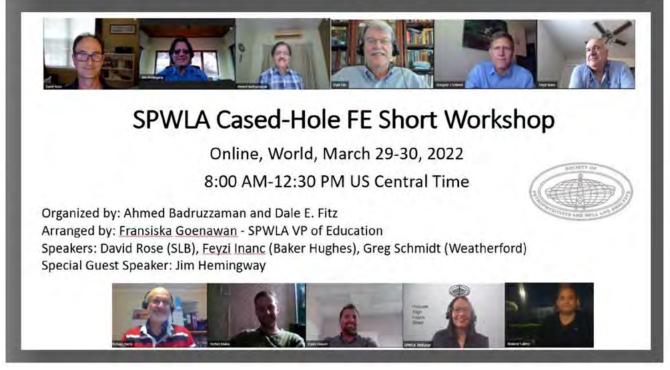


2022 SPWLA Spring Topical Conference on Petrophysical Machine Learning. Can you spot Tegwyn there 😳?

In March, SPWLA conducted two online courses: Cement Evaluation From the Basic to the Advanced by Gary Frisch and Casedhole Formation Evaluation by Ahmed Badruzzaman and Dale Fitz, with Jim Hemingway, David Rose, Feyzi Inanc, and Greg Schmidt as the special guest speakers. Both courses were very well attended. Thank you to all speakers and participants. Coming up is Petrophysical Multimineral Analysis by Patricia Rodrigues. We hope you can join us.



Cement Evaluation From the Basic to the Advanced.



Casedhole Formation Evaluation Workshop.

I would like to mention several individuals who have been providing wonderful support to the VP Education Team: Haryanto Adiguna (Occidental Petroleum), Tianmin Jiang (Conoco Philips), and Maira Lima (Universidade Federal do Rio de Janeiro). Thank you for the great work.



Second to last, I also would like to appreciate Katerina Yared, Tegwyn Perkins, Adam Haecker, Mathilde Luycx, Sharon, Stephanie, the SPWLA Board of Directors, and many individuals who I can't mention one by one. You all are amazing!! Thank you for all the support and collaboration during these years! I am going to miss each of you.

Lastly, I would like to give a special thanks to my employer, Halliburton, my previous managers, Kirsten Torr and Wade Samec, and the Halliburton Houston Center of Excellence Team. I appreciate all the kind understanding and support given to me in these past 2 years.

In the next column, you will meet the new VP of Education, Kelly Skuce. Please continue to support Kelly in his new role.

Thank you, SPWLA, and stay connected!

Respectfully yours, Fransiska Goenawan VP-Education@spwla.org

#### **Informative Technology**



Harry Xie 2021-2023 Vice President Information Technology

#### Dear Colleagues,

Welcome to my column for the SPWLA Today newsletter.

We are all excited about the eagerly anticipated first in-person annual symposium in 2 years. I can't wait to see you in Stavanger, Norway, in June. Although we have more frequent meetings virtually these days, face-to-face interactions can never be replaced by technology. We all should take advantage of this golden opportunity to resume our normal life. I would like to use my column to draw your attention to the following events at the symposium as they are both informative and interactive.

- <u>https://www.spwlaworld.org/workshops-2022/</u>
- Special session: NMR of Drill Cuttings

WORKSHOP 1:

Date: Saturday, Jun 11, 2022

Time: 8:00 am - 4:30 pm

Fee: \$500 for registered attendees; \$600 non-registered (includes lunch)

Maximum Capacity: 35

#### Organic-Rich Shale Formation Evaluation: Making Sense of the Contradictions

Course Summary: This workshop presents fundamentals of organic-rich shale formation evaluation from laboratory core and well logging measurements. The course focuses on learnings from the past decade of research and operations, and highlights continuing misconceptions in shale evaluation. Course content includes a focus on organic geochemistry and source rock analysis, the properties of kerogen and its impact on well logging measurements. State-of-the-art advances in core retort and crushed rock analysis for fluids quantification, quality control practices for validating the accuracy of laboratory measurements. State-of-the-art approaches for organic shale evaluation from ore and logs will be illustrated using data-rich field studies from key economic plays in the USA.

The morning session will focus on fundamentals and properties of organic shales. The afternoon session will focus on application and interpretation of organic shales using log and core data. We will use real-life data to elaborate on best practices in shale analysis and interpretation. Course altendees are encouraged to participate in open discussions through the workshop.

Expectations: Participants will be exposed to various laboratory and well logging techniques applied in organic-rich shale formation evaluation. Participants should expect to learn fundamentals of organic geochemistry, core analysis, and petrophysics pertaining to organic shale evaluation, including how well logging measurements are affected by organic matter. They will be given illustrations on how to evaluate the quality of laboratory and logging measurements, and how accurately interpret organic shale zones in a variety of environments.

#### I hope to see you all in person in Stavanger next month! Ser deg snart! Ha det!

Harry Xie Vice President Information Technology vp-infotech@spwla.org NUCLEAR MAGNETIC RESONANCE OF CUTTINGS: MEASUREMENTS AND INTERPRETATION

An Optimized NMR-Based Workflow for Accurate Porosity and Density Measurement of Drill Cuttings Jinhong Chen, Stacey M. Althaus, and J. David Broyles, Aramco Americas; Mohammed Boudjatit, Saudi Aramco

Corrections and Extensions to the Gri Technique: Dual Imbibition, NMR, and SEM Image Analysis Clara Palencia, University of Houston

Evaluation of Effectiveness of Core Cleaning Methods Gabriela Singer, Halliburton; Shouxiang Mark Ma, Saudi Aramco RDD; Wei Shao and Songhua Chen, Halliburton; Harry Xie and Phil Hawley, Core Laboratories

Unconventional Drill Cuttings Analysis Using 23-MHZ 2D NMR Z. Harry Xie and Omar Reffell, Core Laboratories LP

Validation of Porosity of NMR of Cuttings Michael Dick, Dragan Veselinovic, Taylor Kenney, and Derrick Green, Green Imaging Technologies

SPW/LA

Issue 03

63rd Annual Symposium 11-15 June 2022 | Stavanger, Norway

#### THE FEED



Mathilde Luycx 2021-2023 VP Social Media

This is our last newsletter before the SPWLA Annual Symposium, which will be held on June 11–15 in Stavanger, Norway! Have you already registered and booked your flight and hotel? If not, it's time to get on it!

#### **SPWLA News**

#### Annual Symposium #SPWLA2022

The SPWLA LinkedIn event page has all the information and the link to the website. Accept our invitation for 5 days of learning about the latest advances in #petrophysics, networking with other #fe enthusiasts, and developing your subsurface characterization skills through training, workshops, and The field trip. Register now at @spwlaworld.org!



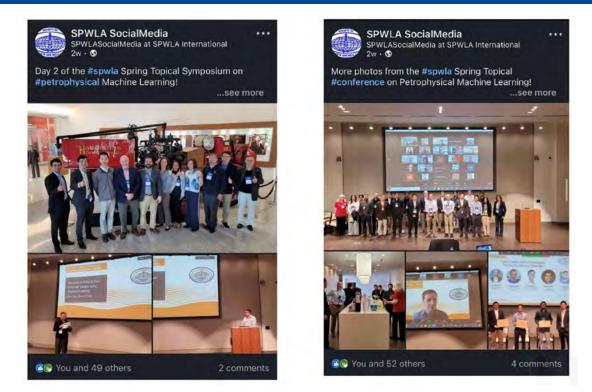
#### "Petrophysical Machine Learning" Spring Topical Conference

The Spring Topical Conference was both #inperson and #online, hosted in Houston on the Halliburton campus over 2 days on March 23–24. Attendees commented that they were pleased that the hybrid format worked well. We continue to see a lot of momentum for #datadriven petrophysics and #machinelearning applications. The dedicated Spring Topical Conference helped connect experts and novices around data-driven formation evaluation. This energy

and interest should carry on to Stavanger since the technical program has no less than four sessions on these topics: Automated Methods of Formation Evaluation, Automation in Borehole Geology, Deep Learning With High-Dimensional Petrophysical Data, and Digitalization in Petrophysics: A Revolution in Formation Evaluation?



#### THE FEED



#### Training for All!

Thanks to VP Education, Siska Goenawan, the SPWLA training offering has been getting larger! March started off with our flagship cement evaluation training by Gary Frish. Then, Ahmed Badrazzaman and Dale Fitz hosted a Casedhole FE Training Workshop. The attendees were treated to first-class guest speakers David Rose, Feyzi Inanc, Greg Schmidt, and former SPWLA president, Jim Hemingway.

SPWLA SocialMedia SPWLASocialMedia at SP 1mo - Edited - S		•••
This is what brushing up your s evaluation during a <b>#spwla</b> trai Many thanks to our instructor (	ining class looks like	
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3,717 impressions	🗷 Sha	re Imáge:



#### **THE FEED**

Another training on multimineralogy interpretation by Patricia Rodrigues is planned at the end of April and the beginning of May in Spanish and English.

#### **Local Chapters Highlights**

Student chapters are paving the way for more inter-chapter collaboration and networking. The UFRJ SPWLA Chapter from Brazil and SPWLA UIS from Colombia held an online meeting to encourage cultural exchanges between their respective chapters.

The Batangas States University Student Chapter, one of SPWLA's newest chapters, also made a big splash by registering over 100 new members from the Philippines.

Finally, the Houston Chapter of SPWLA hosted a well-attended happy hour sponsored by GEOLOG International on March 10. We are looking forward to the next one and hope other chapters follow their lead!





SPWLA SocialMedia

SPWLA

cialMedia at SPWLA International

We look forward to seeing many of you in Stavanger. Our goal will be to share photos and videos to show the excitement of our FE community!

Mathilde Luycx Vice President of Social Media (+1) 512-775-0815 <u>VP-SocialMedia@spwla.org</u>



#### **Regional Understandings–North America 1**



Robin Slocombe 2020-2022 North America 1 Regional Director

This will be my last column for now as I pass on my role as a board member for North America to Javier Miranda. I would like to thank the North America chapter presidents and especially the student chapters for their support over the last two years, and I wish them and Javier all the best going forward.

It is very fitting to see Javier take on the role following his time as president of the Houston Chapter, where he successfully secured the opportunity to host our 2023 Symposium at Margaritaville Lake Resort in Conroe, north of Houston. I am glad to see the symposium headed back to the Texas region, where we can reach so many of our members.

I would also like to congratulate Jennifer Duarte for being elected to the board as the representative for the Middle East and Africa. I look forward to supporting her from Qatar and driving collaboration in the region.

Back in North America... other than being awarded the SPWLA Symposium 2023, the Houston Chapter has been very active. They are holding multiple talks, supporting hiring events, charity golf tournaments, and much more.

The highlight for the student chapters has been the International Student Paper Competition. We have identified a slight conflict where many of the highly accomplished student members prefer to be represented at the SPWLA Symposium or other professional conferences where the quality of their papers means they compete well. The board will discuss this at our next meeting to see how we can continue to incentivize our active student members and ensure they get the professional visibility they deserve.

The University of Houston student competition was held on Saturday, March 26, with good representation in each category, with most papers showing a high quality in technical content and preparation. The two winners, as decided by our external judges (three for MSc and two for PhD), were PhD: Ahmed Kasha and MSc: Andres Villarroel. Congratulations to both of you!

Thanks again to all the members who continue to support our society. International travel is starting again in earnest, and although there is a backdrop of shocking geopolitical events, I am optimistic for a successful symposium in Stavanger this summer. I hope to see many of you there.

Best regards Robin Slocombe North America 1 Director

#### **Regional Understandings–North America 2**



Matt Blyth 2021-2023 North America 2 Regional Director

Where did a quarter of the year go already?! While our larger chapters (Denver, OKC, etc.) have so far had a successful 2022 with a return to in-person events and good attendance numbers, our smaller chapters are still struggling as they deal with the aftereffects of the last 2 years on our industry. In the last issue of *SPWLA Today*, I asked that those members living in some of our smaller chapter locations get out and support their local chapters, and that request still stands! We are really in need of people willing to step up and be part of the local chapter boards and to take an organizational role. The SPWLA is a volunteer organization, and without people willing to stand up and take a share of the load, many chapter activities will cease to exist. This even includes attending meetings!

The election results are in, and I would like to congratulate Javier Miranda on his election to the NA1 Regional Director position! I know Javier well from the Houston Chapter, and I look forward to working together with him to support all the North American chapters. I would also like to thank Robin Slocombe for all his help and support as the NA1 Director for the last 2 years. Lastly, we are just 2 months away from the annual symposium in Stavanger. COVID restrictions are easing, international travel is opening up, and I am looking forward to what should be a great event. I encourage all of you to join us in Norway if you can!

Matt Blyth North America 2 Director (+1) 832-444-4206 Director-NA2@spwla.org

#### **Regional Understandings–Latin America**



Bruno Menchio Faria 2020-2022 Latin America Regional Director

Hello Petrophysical Community,

This is my last column as a member of the BOD, and I want to take the opportunity to give a series of thanks to everyone who helped me directly or indirectly during my tenure.

First, I want to offer an update about the Latin American Region. The first Brazilian Mature Fields Petrophysics Meeting (I EBPCM) organized by the Brazil Chapter was a success. I would like to thank the entire event organizing team, who were able to organize an event of the highest level, especially the organizing committee, which was chaired by Giovanna Carneiro, and had the participation of Gabriel Nascimento de Freitas, Andre Bertolini, Lucas Abreu Blanes de Oliveira, Marianna Dantas, Jesus Salazar, David Xavier, Adna Vasconcelos, and Maira Lima Santos.

A special thanks also goes to the members of the SPWLA UFRJ Student Chapter. This group of students from the university where I studied geology always shows a lot of enthusiasm and dedication. My sincere thanks to Sarah Aleixo, Teresa Mourão, Amanda Mendes, and Rodrigo Azambuja.

I also want to congratulate the SPWLA UIS Student Chapter, which won the Outstanding Student Chapter award for the second time. It is a well-deserved award that reflects all the effort, organization, and especially the desire to spread SPWLA and petrophysics in Colombia and Latin America. I would like to thank the current president of the chapter, Luis Alberto Chinomes Gualdrón, and all the members of the board.

The newly opened Colombia Chapter has a great commitment and dedication to its new activities. I would also like to thank the president, Maria Florencia Segovia, and all the other board members for their opening effort.

I would also like to thank the Argentina Chapter, which left as a legacy the opening of a student chapter that represents many universities in Argentina and an excellent campaign to increase members in the country. My thanks to Marta Dangiola and all the other board members.

The next SPWLA Symposium in Stavanger is very close to taking place. I would like to encourage all members to participate in this very important event for petrophysics.

Lastly, I take this opportunity to congratulate my friend and new Latin America Regional Director, Nelson Suarez. I wish you much success in your new position!

Yours sincerely, Bruno Menchio Faria LA Regional Director https://www.linkedin.com/in/bruno-menchio/ Director-LA@SPWLA.org

#### **Regional Understandings–Europe**



Eva Gerick 2021-2023 Europe Regional Director

Keep well and healthy!

All the best, Eva 2021-2023 Europe Regional Director Director-Europe@spwla.org

#### Dear SPWLA Community,

Very timely for our SPWLA Symposium in Stavanger in June, Europe has lifted more and more restrictions, which has boosted live events in our European chapters like the panel discussion on "The Future of Petrophysics" in the Netherlands or the in-person One-Day Seminar on "Petrophysics in Well Planning and Execution" in our London Chapter.

I've actually been in Stavanger myself this week, and it looks as ready for us as it can be. What strikes me every time is the beautiful light until late in the evening from about now onwards, with the longest days of the year in June, when you can sit outside in a restaurant at 10 pm with your sunglasses on and enjoy the spectacular sunset.

Staying in Norway, our Norwegian Chapter NFES has won the "2021 SPWLA Outstanding Professional Chapter Award," and I'd like to congratulate this hardworking and enthusiastic chapter with a huge "Well done!" The awards ceremony will take place during the symposium.

#### **Regional Understandings–Middle East/Africa**



Nelson Suarez Arcano 2012-2022 Middle East/Africa Regional Director

Dear petrophysicists and colleagues,

This will be my last time writing to you as your Middle East/Africa Regional Director. Albert Einstein was right when he said time is relative, and moreover, since 2020, we have lived with the effects of a pandemic and remote work that has changed the lives of everyone around us.

The year 2022 started with high oil prices, lots of professionals in the market, discoveries (like Namibia), and a disruption in energy supply/demand as Russia's invasion of Ukraine has been prolonged for months, but exactly how long this disruption will last is as uncertain as everything we do in geoscience. What we know is that countries in the Middle East have been requested to ramp up production to contribute to energy security. Thus, be attentive to new projects that are on the way.

On an important note, the board of directors is inviting and encouraging each one of you to go to Stavanger, the friendly Norwegian energy hub, for the SPWLA 63rd Annual Symposium, an event where we finally will meet in person since 2019! Velkommen til Stavanger 2022! <a href="https://www.spwlaworld.org/">https://www.spwlaworld.org/</a>

I missed that I couldn't visit any of the chapters, and those who know me know that I had planned to do so. I will miss those conversations with Dapo, where he kept me up to date about the situation in Nigeria; Faisal, who is always energetic and showed the total disposition of SAC to collaborate regionally; Sharon/Jose, who always replied to my inquiries from Qatar, even when I sent them at midnight with short notice; Rifaat/Qais, who were there reactivating the Oman Chapter during tough times; Doug, who is always looking to bring the best of technology to our region, and Aki/Melissa, who are always looking for ways to spread knowledge (apologies If I am not mentioning everyone). As my time as your director comes to an end, allow me to express my full support to your next director, Jennifer Duarte. She has a trajectory of getting things done, and her responsibilities in the Abu Dhabi Chapter will surely help her succeed in this role. So, my only request for Middle East/Africa is to communicate your needs, findings, and interests to Jennifer as best as you can so we can keep expanding our society and bridges in the region. In the meantime, I will look over the interest of Latin America during the 2022–2024 period.

For the Young Professionals reading this, don't miss this month's edition of The Bridge!

Many Thanks / Gracias / Shukran, Nelson "NSA" Suarez Arcano Middle East/Africa Regional Director 2020-2022 and Latin America 2022-2024 <u>Director-ME@SPWLA.org</u> <u>SPWLAYP@SPWLA.org</u> www.linkedin.com/in/nelson-nsa-suarez-arcano



SPWLA Young Professionals Newsletter



#### **Experienced Professionals: Lessons Learned and Advice to YPs**

May 2022

2022 Steering Committee

#### **Editors**

Ishank Gupta Kanay Jerath Javier Miranda Clara Palencia

Senior Editor Nelson Suarez Arcano

SPWLAYP@SPWLA.ORG

#### In this edition:

Experienced Professionals: Lessons Learned and Advice to YPs

Haiku



Ishank Gupta

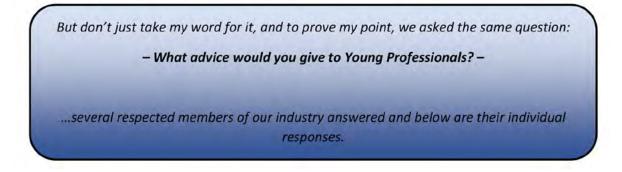
Hello Young Professionals. My name is **Ishank Gupta**, and I have been in the oil industry for over a decade now. I started my career as a reservoir engineer at Schlumberger. After about 5 years of doing that, I switched gears and started my MS/PhD in petroleum engineering at the University of Oklahoma. My research during this time led me to explore petrophysical and geomechanical rock properties and reservoir characterization for unconventional shale reservoirs. Due to the increasing adoption of data science in the oil industry, an excellent data science curriculum being taught in an adjacent engineering building, and encouragement from my advisors to learn new things, I picked up some data science skills, which led me to my current job at Pioneer Natural Resources. To further help in this endeavor, I have also enrolled in an online MS in data analytics from Georgia Tech University.

Some wise men have said that "life is a roller coaster," and I am sure these men must have worked in the oil industry. Where else would you see a commodity going from USD

-32/bbl to almost USD 90/bbl in under 2 years? Now, don't take your calculators out and try to predict what would have happened if you invested a sizeable chunk at the low and sold it at the high recently. Instead, just wait for another cycle, and as history has taught us, there will be another one. Meanwhile, here is my advice to you as an industry veteran on how to avoid getting caught "belly up" in one of the oil cycles and how to make sure you are prepared physically, mentally, and spiritually.

- a. Be passionate about your job. If you hate something, it's hard to be good at it. If you are not good at it, as *Game of Throne* fans say, "Winter is coming."
- b. Read SPE/SPWLA/SEG/AAPG papers, go to conferences/networking events, and volunteer with local chapters. This exposure helps you understand what peers are doing, exposes you to the latest innovations and developments, and initiates contacts across the industry. These contacts can be very helpful when you want to jump ship.
- c. Learn new skills. For example, learning to code in Python, understanding NumPy and Panda Dataframes, and mastering tutorials for data engineering, clustering, classification, and regression can make you a sought-after resource within the company.
- d. Have hobbies and take regular time off. The nature of the job and the added cyclicity of the oil price makes it a stressful career. Swimming, playing badminton, and taking regular vacations to various US national parks have been my go-to to balance my life. Everybody has their poison.





**Pragnya Maruwada** is a reservoir engineer working at Denbury Resources. She got her BS in petroleum engineering at The University of Texas at Austin and an MBA from The University of Texas at Dallas. She replied, "Over the last 10 years, I've worked for multiple companies in many roles ranging from a hydraulic fracturing field engineer to a fracturing consultant, technical sales, and most recently as a reservoir engineer for CO<sub>2</sub> floods. During my time in the service sector, I took the opportunity to diversify my skill sets and pursued an MBA, which helped steer my career to join an E&P in the business development group. Below is some advice that I've followed through tough transitions in my career, and I wish that I had learned some of these lessons early on!

- a. Say yes to every opportunity, even if the opportunity isn't exactly what you planned for. Career paths are often meandering, and this opportunity could open doors and windows to something different that you may truly enjoy. Use every opportunity to learn and grow from the experiences (good or bad)!
- b. Be flexible. I've seen two downturns in my 10 years, and more are likely to come. Know and accept what's in your control and what's out of your control. This has helped steer my decision making, and I encourage you to be flexible and open to change.
- c. Continue learning. I firmly believe that continuing education is vital (whether it's through a formal MS or MBA program) or attending technical meetings, lectures, etc. Our industry is constantly evolving, and it's important to not only be aware of the latest trends but also to diversify your skill sets to meet the needs of what companies will require in the future.
- d. Network. Join a professional organization and expand your network. Networking has been absolutely key to the transitions I've made in my career, and I'm very thankful to be able to surround myself with industry professionals who I can lean on for a wealth of technical knowledge and career advice."





Next, we asked **Mriganko Sarkar**, who is currently working as a petrophysicist at Pioneer Natural Resources. His reply to the question was, "Working as a petrophysicist for me was an interesting quirk of fate. Having interned at India's space agency (ISRO) as a junior research fellow, I worked in a class 10000 clean room on a space flight payload. So, transitioning to the oil patch as a field wireline engineer in ONGC working in the middle of nowhere in rural south India was both tough and grounding to earth (pun intended), to say the least! The common binding thread was my passion for engineering and applied physics, which made me stick around while all my friends jumped onto the IT bandwagon.

Petrophysics as a discipline is not taught as a regular academic degree. Nevertheless, I have had the privilege of getting trained in petrophysics through my stints as a wireline field engineer both in India and Oklahoma, through my core lab experience as a graduate student in the OU-IC3 lab working shale cores, and finally as a log analyst and petrophysicist working for Schlumberger and Pioneer. Through these diverse work experiences, I've had the great good fortune of encountering a great many mentors in ONGC, at OU, and both at Schlumberger and Pioneer.

Playing an active role in the local SPWLA organization in Dallas helped me experience the depth and breadth of knowledge and expertise in the field of petrophysics from my fellow members. We petrophysicists sometimes tend to silo ourselves as a specialized discipline, yet when one looks at the myriad applications of petrophysics, nothing could be farther from the truth. This is one discipline that helps to integrate and quantitatively complete the picture for engineers and other geoscientists. As the world transitions its energy sources, some 'old' skills can and will become 'new' and vice versa. Therefore, I intend to be a lifelong student of petrophysics. My one cent for any budding petrophysicists is to continuously learn and seek mentors both within your workplace and at SPWLA."

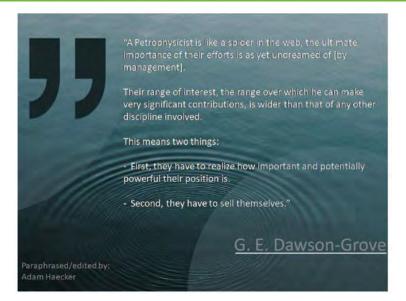


Adam Haecker is a good friend and an excellent petrophysicist. He is currently working as petrophysicist III at Battelle. He is also a board member for SPWLA, currently serving as VP of Finance. When I asked him about the interview series, he was elated, and his reply was, "The funny thing about petrophysicists is no one knows where they come from. No universities offer degrees in the subject (except for a short stint at the University of Aberdeen). Many of us studied things like geology, petroleum engineering, electrical engineering, oceanography, etc. To become a petrophysicist, you generally have to work for one of the major wireline or core lab companies. Many of us start as wireline engineers, others as core lab technicians.

To succeed, you need both wireline and core expertise as well as a good smattering of petroleum engineering and, of course, geology. After that, it is up to the individual aspiring petrophysicists and finding good mentors. I have found that there are many good mentors out there. You just have to seek them out. Typically, they don't work at the same company as you. I was fortunate enough to work with some world-class scientists early in my career, where I learned much about core analysis that was not covered at a university or wireline school. So, if you are reading this, seek out mentors through SPWLA or other avenues.

To paraphrase G. E. Dawson-Grove (1978):





The nature of the oil job market transcends the boundaries of states and countries. We talked to **Mukesh Gupta**, who has spent almost two decades as a petrophysicist in the oil and gas industry. He started working as a petrophysicist for the national oil company in India, followed by several roles at different companies, namely CGG, Schlumberger, and Petronas. When asked what's his advice to YPs, he replied, "Petrophysicists must have a good understanding of data/measurements, i.e., physics of wireline and LWD tools and technologies, and lab equipment for core and fluid analysis. The core data are often used as a source of calibration for log analysis and understanding accuracy. Precision and errors in core measurements can go a long way in having accurate log-based petrophysical models. Petrophysicists must use the resources available from SPWLA, and the following can be a good start:

- a. Petrophysics-related tutorials available through SPWLA.
- b. Papers written by technology innovation companies during tool and equipment launches/introductions.
- c. Seminal papers, e.g., Archie, Waxman-Smits, Thomas Stieber, etc., which form the backbone of petrophysical log interpretation."

I also happened to speak with **Himanshu Gupta**, who started as a software engineer and currently works as a product development head at a multinational IT firm. He has also worked for an oil and gas service provider, Geokinetics Inc., and several technology companies providing services to the oil and gas industry. He has 18 years of experience in consulting, service delivery, program management, and product development. Based on his professional experience and learning, he advises every young professional to develop the following five traits.

- a. "Agility and eagerness to learn. One must always be quick and eager to learn a new technology and keep abreast with the latest trends. In this ever-evolving world, technology is an integral part of our lives, which is continuously evolving. So, it becomes imperative that we all should keep pace with it.
- b. Network to add value. Everyone suggests 'networking,' but it's essential to note that networking is meaningful and successful only when you add some value to the person with whom you want to network. Networking is a two-way street. Once you start to connect with people with the pure intention to help and add value to them, you will also start to see others reciprocate and add value to you.
- c. Data Analysis. In today's world, 'data are the new oil.' Data are everywhere, which holds the answers to many critical questions. I recommend every young professional should have the ability to analyze data and convert information into actionable knowledge.
- d. Problem-Solving. Regardless of one's job profile, title, and/or educational qualification, the problem-solving ability is a must. You may need it at your job or in your personal life. All upcoming professionals should have this skill.
- e. Business Analysis. Another important thing I learned in my career is that besides mastering technical skills, one must also understand the business. You can grow only so much with technical skills, but with the understanding of business, you can grow faster and higher within the organization."



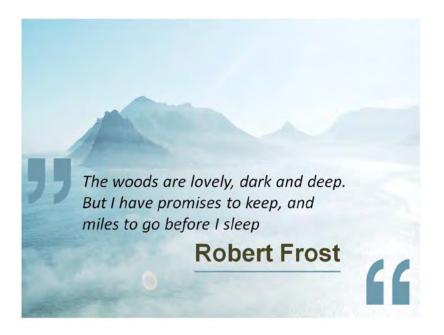


Lastly, I asked my co-editor and subject matter expert, **Javier Miranda**, to summarize what advice he would like to give the young professionals. He is an industry veteran, having spent close to three decades in the oil industry. He has worked both in industry and academia and has vast experience in both conventional and unconventional reservoir petrophysics. He is currently working as a senior petrophysicist at Degoyler and MacNaughton. His reply was:

- a. "Do all the routinary tasks in your work (arriving on time to meetings or other activities, supporting your team, not sharing confidential matters, dressing accordingly to occasion, paying attention when others are talking to you or presenting, avoiding looking at your phone when in a meeting or talking with a colleague or coworker, etc.). These do not take any effort, and you do not need to be the smartest guy in the room to accomplish them, but they certainly help a lot and are basic rules for a good professional.
- b. Always volunteer to help others. This is a great opportunity also for training on the job. Someone might not be willing to teach you something, but he/she would certainly do it if knowing that could help him/her.
- c. Do not miss any opportunity to acquire any new skill or learning, whether on the job, in a course or workshop, reading a paper, etc.
- d. Get involved and participate in professional societies, not only by attending their conferences and events but also by being a volunteer or eventually becoming a local or international officer in one of them.
- e. Always share your learning with your peers when the opportunity arises. This is the best way to polish your skills even more.
- f. Always look for advice from experienced professionals and listen to their learned lessons carefully, not only on the job but also via networking events, professional societies, and lunch with a colleague, among others.
- g. Document your work properly and be organized with your files, work, results, reports, and presentations. This will not only help others in the future to know what you did and the basis of your workflow or results but could eventually help you in future years when coming back to a project, field, area, etc.
- h. Build a strong network within your employer and also outside via professional societies (SPWLA, SPE, AAPG, SEG, etc.) and local chapters, colleagues, former college classmates and professors, etc. Do not wait to build a network until you actually need it!
- i. Always remember where you came from and who was there to help you. In this sense, participate or volunteer in your college activities, serve as a student paper contest judge, give back time or donations, stay in contact with your professor to offer help when needed, or for follow-up research related to your own research in college
- j. Never forget that those who you see when going up are the same ones you will see when going down. They say, 'the oil industry is a handkerchief,' and this statement is totally true. You never know who you will need for help in the near or distant future."



Thank you, **Javier**, and spoken like a true champion. I love the fact that when you listen to these great professionals, some themes keep repeating, suggesting how important they are and also because great minds think alike! Yet, each professional has something unique to offer based on his/her life experience. I have for sure learned some new things compiling and preparing this article. I hope our readers find this article educational, and it helps to give them some perspective. I will end by including a few words from my favorite poet, Robert Frost:



#### Petrophysical Haiku

## STAVANGER MEETING COME OR YOU WILL BE SORRY THAT YOU HAVE MISSED OUT

**Contact us: SPWLAYP@SPWLA.ORG** We encourage you to contact us with any suggestions for improving our group and/or if interested in participating in our activities.





Send us your articles, stories, fun moments, photos, etc. to be published in The Bridge.





#### RESISTIVITY SIG 2022 SPRING MEETING -OPEN REGISTRATION Wednesday, May 11, 2022

#### Resuming in-Person Meetings - BP Campus (South of Katy Freeway) Register Here (meeting link will be sent to your email after registration)

We are excited to let you know that the Resistivity Special Interest Group (Rt-SIG) 2022 Spring Meeting will be held inperson at the BP campus (South of Katy Freeway) on Wednesday, May 11th, 2022.

Please refer to the attachment for the detailed agenda. The doors will open 8:00 AM (CDT) and program will begin at 8:45 AM and end by 3:15 PM. The registration is open now.

FEES: Students \$10 :SPWLA Members \$20 :Non-Members \$30

Resistivity Special Interest Group Spring 2022 Agenda

8:45	9:00	Welcome
9:00	9:30	Beginnings of Petrophysics at Shell: An His- torical Summary with One Man's Recollec- tions, Abridged
9:30	10:00	First LWD Co-Located Antenna Sensors for Real-Time Anisotropy and Dip Angle Deter- mination Yielding Better Look Ahead Detec- tion
10:00	10:30	Machine Learning (ML)-based Convolution Method for Fast Forward Modeling of Induc- tion Log
10:30	11:00	Deep Learning Enhanced Multiphysics Joint Inversion
11:00	11:30	Petrophysical Applications for the Quadra- ture Induction Conductivity
11:30	12:30	Lunch
12:30	13:00	Bayesian inversion of well logs and core data for improved petrophysical interpretation.
13:00	13:30	"As-Received" Core Electrical Properties
13:30	14:00	Solving complex reservoir geology through acquisition of borchole images in vertical and lateral wells
14:00	14:30 Enhanced Assessment of Fluid : the Wolfcamp Formation of the sm	
14:30	14:45	SDAR Report
14:45	15:00	Business Meeting & Adjourn

#### **Click for Agenda/Bios**

Feel free to contact us at **rtsig@spwla.org** if you have any questions. Looking forward to seeing you at our SIG meeting.

Rt-SIG Committee <<u>RtSIG@SPWLA.org</u>> Chair: David Kennedy<<u>david kennedy@ged-petrophysics.com</u>> Vice Chair: Stephanie E. Perry<<u>sperry@geomarkresearch.com></u> Secretary: Aygul Kostinovsky<<u>avgul.kostinovsky@chevron.com></u> Treasurer: Yao Feng<<u>YFeng13@slb.com</u>>



This workshop will take the format of an open discussion between experts from operator companies, service companies, and universities on a wide variety of topics surrounding the future of borehole acoustics in a rapidly changing Energy industry, including the following:

- Development/characterization/modelling of wireline/LWD sonic tools now & in the future.
- Development/characterization/modelling of wireline and LWD ultrasonic tools and new applications they could bring.
- Novel applications of both wireline and LWD data in open and cased hole. What could be developed to ensure borehole acoustics is increasingly relevant going forward?
- The application of machine learning and multi-physics approaches to borehole acoustics data. Could it allow us to do things we can not do now?
- Role of borehole acoustics in CCS and geothermal technologies/workflows

The organizing committee would like to invite abstract submissions (< 500 words) on all of the above topics and others within the workshop mandate. Abstract submission is not mandatory in order to attend the workshop.

ABSTRACT DEADLINE: June 3<sup>rd</sup>, 2022. <u>Submit Your Abstract Here!</u>

The conference will consist of oral presentations followed by breakout/discussion sessions. Details regarding registration, workshop charges, presentation duration, breakout/discussion format, etc., will be available shortly. Please visit <u>www.spwla.org</u> for updated information when available. Please contact <u>acoustics\_sig@spwla.org</u> with any questions!

## To encourage sharing of the latest techniques, ideas, and developments in borehole acoustics, proceedings and presentations are off the record.

#### Steering Committee:

Brian Hornby (HGS), Matt Blyth (SLB), Alexei Bolshakov (Chevron), Arthur Cheng (NUS), Kris Walker (Chevron), Tim Geerits (BH)

SPWLA VP of Education: Fransiska Goenawan (HAL)/ Kelly Skuce (Core Petrophysical Consulting)



Friday, Sept 2<sup>nd</sup>, 2022, Venue TBD, Houston, TX

This topical conference will be conducted as an "off-the-record" forum with no publication of any material presented. We encourage the presenters and participants to share their case studies, conceptual innovations, new methodologies and latest technologies. Video recording, photographing or quoting of speakers or their presentations will be expressly prohibited. Company logos should be limited to the title slide to indicate the affiliations of the author and coauthors. Commercialism during presentations is not permitted.

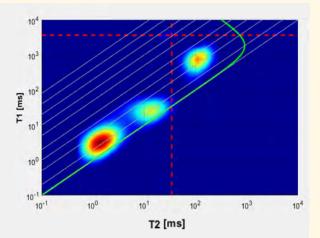
**Conference attendance seating may be limited due to room capacity.** Preference will be given to applicants who are willing to present at this topical conference. Presenters will be expected to register and pay the registration fee.

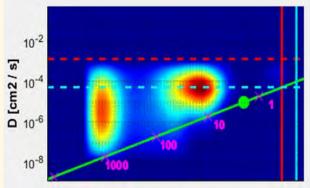
**SPWLA Policy** It is the policy of this organization to provide equal opportunities without regard to race, color, religion, national origin, gender, sexual preference, age, or disability

More details forthcoming.

## SPINNING UP AN NMR CONFERENCE AFTER SOME "RELAXATION TIME" TIME TO REFOCUS!

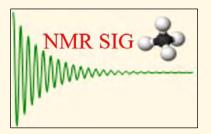
## SPWLA FALL 2022 NMR SIG CONFERENCE OCTOBER 6 – 7, 2022





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## Houston, Texas, U.S.A





# GENERAL ANNOUNCEMENT FOR A FORTHCOMING NMR SIG CONFERENCE

The SPWLA NMR SIG board has the pleasure once again of announcing the Fall 2022 NMR SIG Conference to be held on October 6 & 7 in Houston, Texas, U.S.A

The Fall 2022 NMR SIG Conference will happen "rain or shine" and is being planned as an "in-person conference" on October 6 & 7, 2022. However, if forced to do so, the SIG Conference will be held as a virtual event, on the same dates.

This SIG meeting will be a 1½ day conference featuring NMR related formation evaluation concepts and applications, advances in multi-discipline collaboration, as well as an outstanding opportunity to reconnect with NMR SIG members.

An Announcement - Flyer will be published and circulated later this Spring 2022 with details on venue location and the Call for Abstracts.

Authors who have submitted abstracts for the 2021 SIG will have the option to retain their abstract for the 2022 SIG; or to modify and re-submit; or to withdraw their abstracts.

A preliminary and general list of possible NMR topics is below:

Reservoir Characterization in Unconventionals Reservoir Characterization in Conventionals NMR on Core & Fluid – Integration with well logs NMR and Machine Learning Academia and NMR – Beyond Education

# SPWLA SIXTH BOARD OF DIRECTORS MEETING REMOTE MARCH 9, 2022

President Katerina Yared called the meeting to order at 8:04 am. In attendance, President-Elect, Tegwyn Perkins, Vice President Technology, Carlos Torres-Verdin, Vice President Education, Fransiska Goenawan, Vice President Finance, Secretary and Admin, Adam Haecker, Vice President Publications, Songhua Chen, Vice President Information Technology, Harry Xie, Vice President, Mathilde Luycx, Regional Director N. America 1, Robin Slocombe, Regional Director Middle East/ Africa, Nelson Suarez, Director Latin America, Bruno Menchio Faria, Regional Director N. America 2, Matthew Blyth, Regional Director Europe, Eva Gerrick, Executive Director, Sharon Johnson. Absent: Regional Director Asia Pacific/Australia, Ryan Lafferty

A motion made by President-Elect, Tegwyn Perkins, to accept the Formation Testing SIG Bylaws, Seconded by VP IT, Harry Xie, passed by majority vote.

A motion made by President-Elect, Tegwyn Perkins, to accept one of the following Chapters for the "2021 SPWLA OUTSTANDING PROFESSIONAL CHAPTER AWARD," Seconded by Regional Director, Nelson Suarez.

#### Results

Argentina	1
Norway (NFES)	6
Saudi Arabia (SAC)	5
Abstain	1

The motion passed by supporting the Norway (NFES) Chapter by majority vote.

A motion was made by VP Finance, Adam Haecker, to accept one of the following Chapters for the "2021 SPWLA OUTSTANDING STUDENT CHAPTER AWARD," Seconded by VP Education, Siska Goenawan.

#### Results

SPWLA UIS Colombia7U of Oklahoma Student5Abstain1

The motion passed by supporting the SPWLA UIS Colombia Chapter by majority vote.

**ACTION ITEM:** Regional Directors, please notify your chapters of their win and request a short summary to add in the symposium program.

#### Outstanding Petrophysics Papers 2022 First Place

- Authors: Xinglin Wang, Philip Singer, Yunke Liu, Zeliang Chen, G.J. Hirasaki, and Harold I. Vinegar
- Title: Pore Size, Tortuosity, and Permeability From NMR Restricted Diffusion in Organic-Rich Chalks
- Published in June 2021 issue, pp. 244–264. Paper ID: PJV62N3-2021a1

#### **Second Place**

- Author: Rick Aldred
- Title: Petrophysics of Thinly Bedded Formations
- Published in August 2021 issue, pp. 335–352.
- A tutorial paper. Paper ID: PJV62N4-2021t1

#### Best Petrophysics Journal Reviewer Best Reviewer: Tianmin Jiang

Reviewed 12 manuscripts, all reviews submitted on time. Received 4 AE votes.

• Updated the AE team with one drop and three additions

#### First Runner-Up: Serg Ishutov

The 2021–2022 Awards Committee list of nominees provided to the BOD on March 9, 2022, passed by majority vote. The awardees are as listed:

Gold Medal for Technical Achievement: Carl Sondergeld Distinguished Technical Achievement Award: Mark Ma Distinguished Technical Achievement Award: Mark Alberty Distinguished Technical Achievement Award: Dzevat Omeragic

Meritorious Technical Achievement Award: Siddharth Misra Young Professional Technical Award: Artur Posenato Garcia Young Professional Technical Award: Stephanie Perry Young Professional Technical Award: Qiong (Sabrina) Zhang Distinguished Service Award: Iulian N. Hulea Distinguished Service Award: Zhipeng (Zach) Liu Distinguished Service Award: Jesus Salazar Meritorious Service Award: Mike Millar Meritorious Service Award: Lesley Evans Award of Appreciation: Lei Fu

# SPWLA SIXTH BOARD OF DIRECTORS MEETING REMOTE MARCH 9, 2022

This concludes the March board meeting. Thank you for your participation!

Meeting adjourned: 12:02 pm

Respectively Submitted by Sharon Johnson Executive Director

BOD meeting schedule:

Wednesdays at 8 am CST-11:00 am CST May 11, 2022

Meetings will be held in person at the SPWLA Business Office Houston or Remote via GoToMeeting.

#### **ABU DHABI CHAPTER**

#### **General News**

The Abu Dhabi Chapter encourages the geoscientist community interested in joining our chapter and becoming an active member to get in touch if you want to be added to our email list or if you want to present during our monthly technical events at <u>abudhabi@spwla.org</u>. Follow us on LinkedIn: SPWLA Abu Dhabi Local Chapter.

SPWLA Abu Dhabi would like to thank all the speakers who have presented during our monthly technical talks over the past months.

#### **Recent Events**

22 February 2022—Our local chapter hosted an online technical event. The speaker for this talk was Daniel Nemuschenko, head of the geosteering department (ROGII). The topic of this talk is "Stochastic Inversion for Geosteering."



Daniel Nemuschento

**9 March 2022**—2021–2022 SPWLA Distinguished Speaker Technical Talk: This month's tech talk was presented by Andy McDonald, a petrophysicist working for Lloyd's Register in Aberdeen. The presentation took place over Microsoft Teams. The topic of this talk was "Data Quality Considerations for Petrophysical Machine-Learning Models."



Andy McDonald

**April 2022**—Alexey Tveritnev, senior petrophysicist (ADNOC Onshore), gave a presentation titled, "A Proactive Selection of Reservoir Flow Profiling Techniques for an Efficient Field Management."



Alexey Tveritnev

#### **ACOUSTICS SIG**

During the last two months, we have had SIG Board of Directors (BOD) and SIG Conference Planning meetings on February 18, March 11, and March 25. During this time, we have:

- Determined the BOD positions that we want to have: Chair, VP of Technology, Treasurer, Secretary, and Director of Communications, as well as staffed those positions for the next year. The BOD are: Chair = Rob Vines, VP = Brian Hornby, Treasurer = Alexei Bolshakov, Secretary = Kris Walker, and Director of Communications = Matt Blyth
- Created Member at Large positions and staffed those positions for the next year. Members at Large are invited to all meetings to provide helpful engagement/ discussion. Voting on decisions is done by the BOD. Members are: Gennady Koscheev, Arthur Cheng, Tim Geerits, Doug Patterson, and Ruijia Wang
- Began the revamp of the Acoustic SIG website. Acoustics (spwla.org)
- Created a new Acoustic SIG online signup form. See here to register: <u>Acoustics SIG SPWLA World</u>
- Finalized plans for an Acoustic SIG Workshop during the day following SEG in September 2022
- Agreed to the goal of meeting once every 2 months for an informal seminar and subsequent discussion
- Agreed to the goal of developing a LinkedIn Acoustic SIG group to facilitate communication and engagement with members

#### **Upcoming Events**

2 September 2022—An Acoustic SIG Workshop, "Borehole Acoustics: The Road Ahead," will be held at a venue TBD, Houston, Texas. The abstract submission deadline is June 3, 2022 (the abstract submission process will be announced shortly). This workshop will take the format of an open discussion between experts from operator companies, service companies, and universities on a wide variety of topics surrounding the future of borehole acoustics in a rapidly changing energy industry. See Acoustics (spwla.org) for more details.

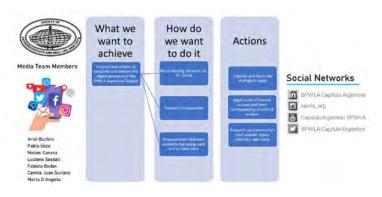


#### **ARGENTINE CHAPTER**

#### **General News**

This committee met bimonthly in 2021, and we plan to continue with these meetings during 2022 when ideas arise to be developed in the chapter. We identified two new high spots:

 Media Team Creation: To improve the communication with our community and get a more efficient visualization of our chapter, whether past or future, this interest group was spontaneously created. Our goals and actions strategy are summarized in the next figures:



#### You Tube



Gmail

Education Team Creation: From the idea of improving and better understanding the needs of the young target (advanced students and young professionals), this interest group was spontaneously created. Our goals and actions strategy are summarized in the next figures:



#### **Upcoming Events**

4 May 2022—Open Talks Cycle will be held, entitled "Rock Typing, Application in Reservoir Characterization" at 10 am. The rock typing methodology allows for establishing the geometry of the porous system of the reservoirs. It is fundamentally based on the determination of lithofacies or rock types and their application in reservoir characterization through the analysis of capillary pressure curves by mercury injection, incorporating the analysis of the complex variations in the geometry of the pores and throats of pores that control the initial and residual distribution of fluids and their flow through the reservoir. The relationship between rock types, water saturation, and height above free-water level (FWL) is of vital importance for the understanding of reservoirs. Juan Carlos Porras is a geologist engineer who graduated from the University of Oklahoma, USA (1985), earned a master's degree in geology, minoring in petrophysics, from the Colorado School of Mines, USA (1992), and had a petrophysics fellowship at the Amoco Technology Center in Tulsa, Oklahoma (August 1994 to August 1995). He started in the Venezuelan oil industry in 1985 at Petróleos de Venezuela S.A. (PDVSA), a company for which he worked until 2002, reaching the position of petrophysics advisor for the PDVSA Integrated Reservoir Studies. He was a member of the Guiding Committee of the Petrophysics Knowledge Community from 1998 to 2002 and co-founder, technical coordinator, and instructor of the PDVSA Petrophysics Training Program. Since 2003 until now, he has been co-founder and director of the company, Inter Rock C.A., consulting with various companies in Venezuela and in other countries, such as Mexico, Trinidad and Tobago, Egypt, Malaysia, South Africa, the United States, Argentina, Brazil, Chile, Bolivia, Ecuador, Peru, and Colombia.



#### BANGKOK CHAPTER

#### **General News**

After a full year of remote meetings, SPWLA Bangkok has returned to hosting live meetings in Thailand. Thanks to all the presenters and SPWLA staff who helped keep our chapter active with the webinars. We were very fortunate to have some excellent topics through the course of the year (but are glad to be meeting face to face again :).

#### 2021 Chapter Committee Members

President	Andrew Cox
Technical Coordinator	Numan Phettongkam
Treasurer	Sirinya Maykho
Web Coordinator	Alexander Beviss
Secretary	Ronald Ford
Sponsorship	open
Student Liaison	Kruawun Jankaew
Member at Large	Greg Heath

Please visit <u>https://www.spwla.org/SPWLA/Chapters\_SIGs/</u> <u>Chapters/Asia/Bangkok/Bangkok.aspx</u> for local chapter news and information on upcoming meetings. Email: <u>bangkok.</u> <u>chapter@spwla.org</u>.

#### **Recent Events**

- March 2022—Live Meeting: Technology Session #1 – Formation Pressure and Sampling Tools. SPWLA Bangkok Chapter hosted the first in a series of technology sessions where service providers can present up-to-date technical information on the latest advances in technology and topics of interest. Attendees are presented with detailed information on these technologies and can then ask questions of the experts. The March Technology Session saw back-to-back presentations by Halliburton and Schlumberger:
  - Formation Testing and Sampling in Hostile Environments: Key Developments and Experiences From GOT (Bancha Srikampha, Halliburton)
  - Ora Intelligent Formation Testing Platform (Dr. Saifon Duangkaew, Schlumberger)
- April 2022—Live Meeting: Technology Session #2 Formation Pressure and Sampling Tools. For April, we were fortunate to have presentations by Baker Hughes and Weatherford (presenter names and abstracts are not yet available at the time of printing).



(From left to right) Mike Pearson (MP Consulting), Dyahir Chan (Schlumberger), Ronald Tay (Bluefin), Dr. Saifon Daungkaew (Schlumberger), and Chris Platt (PTTEP).



Damrongsak Chantipna (consulting geologist) with Bancha Srikampha (Halliburton).

Please check the local website for information on local events and activities for the Bangkok Chapter: <u>https://www.spwla.org/SPWLA/Chapters\_SIGs/Chapters/Asia/Bangkok/Bangkok.aspx</u>

#### BATANGAS STATE UNIVERSITY STUDENT CHAPTER

#### **General News**

"Learning is a constant process of discovery – a process without end." ~Bruce Lee The SPWLA Batangas State University Student Chapter has started to proceed with its plans for its second semester in the school year 2021–2022. The proposed e-Mentorship program was divided into three batches, wherein there are a limited number of student members who can participate. Each batch of the e-Mentorship program is conducted every month: the first batch in March, the second batch in April, and the third batch in May. Each batch has its designated organizers from all the officers.

The first batch was led by the SPWLA BatStateU Student Chapter President, Julie Ann Gregorio, along with the Secretary for External Affairs, Alpha Joy Diasanta. It was then followed by the second group of organizers led by the Vice President for Internal Affairs, Gabriela Malasique, Treasurer for Internal Affairs, Jasmine De Torres, and Auditor, Sheila Mandigma. The Vice President for External Affairs, Andrea Manalo, Secretary for External Affairs, Alpha Joy Diasanta, and Treasurer for External Affairs, Kristelle Angela Pesquesa, were the organizers for the last batch of the e-Mentorship program. Also, an e-certificate was presented to each mentor that was created and designed by the Secretary for Internal Affairs, Ciara Iana Maquinto. The mentorship activity was entitled "Society of Petrophysicists and Well-Log Analysts e-Mentorship Program: PARTS I, II, & III," which aims to provide in-depth knowledge about their chosen petrophysical course (Reservoir Engineering, Petrophysics, and Reservoir Geoscience). Through the guidance of Mr. Adam Haecker, Engr. Shahid Azizul Haq, Engr. Amira Salah Eddin Baroni, and Ms. Patricia Rodrigues, the e-Mentorship program was successfully conducted.

The student chapter has also started to prepare for their upcoming plans that will take place in the last week of their academic year, which would be an election of new organization officers and a job opportunity webinar.

#### **Recent Events**

#### e-Mentorship Program

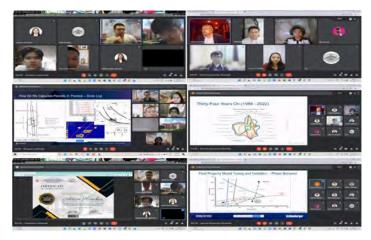
March 2022 Batch—The e-mentorship program is composed of two specifications with three sessions each, namely: Petrophysics and Reservoir Engineering. Session one was a general overview of the subject matter. The second session was about the technicality needed in the field, and the last session was giving advice on how to become competitive in a certain field of specification. The event was conducted via Google Meet/Zoom Meeting. The Petrophysics e-Mentorship program was conducted March 7, 11, and 17 and had five mentees under the guidance of Adam Haecker, who is a petrophysicist III (Battelle). On the other hand, the Reservoir Engineering was conducted on March 9, 16, and 23 with five mentees

who were mentored by Engr. Shahid Azizul Haq, reservoir engineering advisor (Schlumberger).

April 2022 Batch—The e-mentorship program is composed of three specifications with three sessions each, namely: Petrophysics, Geosciences, and Reservoir Engineering. The first session focused on a general overview of the subject matter, the second on the technology required in the area, and the third on advice on how to become competitive in a specific field of specification. The event was held via Google Meet/Zoom Meeting. The first session for Reservoir Engineering was conducted on April 10 by Ms. Amira Salah Eddin Baroni, reservoir engineer (VEBA). It was then followed by Ms. Patricia Rodrigues on April 18 for the first session of Reservoir Geoscience.

#### **Upcoming Events**

- May 2022—Election of Officers: The SPWLA BatStateU SC aims to organize an event that will allow students to step forward and take the initiative to lead their fellow students. This event will take place in the last week of the academic year. New officers are expected to emerge. A short program will be conducted in recognition of the efforts and achievements of the students and the preceding officers.
- Job Opportunity Webinar—The student organization aims to conduct a webinar entitled "Career Readiness." The objective of this event is to demonstrate, sharpen, and develop skills, knowledge, and behavior, and boost ideas in pursuing preferred professions, which will prepare the students who will have their internship and those who are about to graduate in preparation for a successful transition into their life beyond Batangas State University.



March Batch.

Description: In March 2022, the first batch of Petrophysics and Reservoir Engineering e-Mentorships were held via Google Meeting, with five mentees working under the direction of Adam Haecker, petrophysicist III (Battelle), and Engr. Shahid Azizul Haq, engineering advisor (Schlumberger), respectively. The first session focused on a general overview of the courses and was held on March 7 for Petrophysics and March 9 for Reservoir Engineering. At the second session, held on March 11 and 16, they looked at the level of sophistication required in the field. Finally, the third session for Petrophysics was held on March 17, while the last session for Reservoir Engineering was held on March 23. The SPWLA BatStateU SC honored the distinguished petrophysics and reservoir engineering mentors with a Certificate of Appreciation during the session when mentees expressed what they learned from their mentors.



April Batch.

**Description:** The second batch of Reservoir Engineering e-Mentorship was held via Google Meeting in April 2022, with five mentees working under the supervision of Ms. Amira Salah Eddin Baroni, reservoir engineer (VEBA). On April 9, the first session focused on a broad overview of the course. They looked at the level of sophistication required in the field at the second session, which took place on April 12.

#### **BOREHOLE IMAGING-BHI SIG**

#### **General News**

The purpose of this SIG is to provide a forum for those interested in borehole imaging to conduct technical discussions concerning tool design, data acquisition and delivery, applications, and interpretation and to develop/ promote industry standards. The chapter organizes a One-Day Workshop about the fundamentals and applications of borehole image log data at the 2022 SPWLA Annual Symposium in Stavanger in June. You can register for the SIG here: <u>https://www.spwlaworld.org/borehole-imaging-sig/</u>

#### **Recent Events**

- 17 and 30 March 2022—Preparation meetings (online) for the workshop at the SPWLA Annual Conference.
- **19 April 2022**—Preparation meetings (online) for the workshop at the SPWLA Annual Conference.

#### **Upcoming Events**

12 June 2022—The workshop at the SPWLA Annual Symposium will be a One-Day Workshop with the aim to provide the participants with an overview of BHI tools, applications, pitfalls, and practical examples of BHI data sets. Registration for this workshop is already open through the event website of the SPWLA Annual Symposium. A SIG meeting is preliminarily planned for June 16 to discuss standardizing image analysis deliverables.

#### **BOSTON CHAPTER**

#### **Recent Events**

18 March 2022—The Boston Chapter hosted Sabyasachi Dash (University of Texas at Austin) in the auditorium of Schlumberger-Doll Research in Cambridge, Massachusetts, for an in-person presentation of his Distinguished Speaker lecture, "Enhanced Assessment of Fluid Saturation in the Wolfcamp Formation of the Permian Basin." The presentation was also broadcast virtually via MS Teams. The talk was well-attended by the combined audience, and it was engaging and provoked many questions.



Sabyasachi Dash (UT-Austin) with officers of the Boston Chapter after his hybrid presentation in the auditorium of Schlumberger-Doll Research on March 18, 2022.

**20 April 2022**—The Boston Chapter hosted Martin E. Poitzsch (Aramco Research Center) at Schlumberger-Doll Research in Cambridge, Massachusetts, for a presentation of his Distinguished Speaker lecture, "Nanotechnology for Reservoir Characterization and Optimization." The meeting was held in person only and was followed by a networking lunch in the SDR Winter Garden. Boston Chapter Officer S. Sherry Zhu is also a coauthor of the work.

#### **Upcoming Events**

Several members of the Boston Chapter have submitted manuscripts for presentation at the upcoming SPWLA Symposium in Stavanger. Looking forward to seeing you there!

#### **General News**

SPWLA general members and Boston-affiliate members are invited to browse our chapter website <u>http://boston.spwla.org</u> for up-to-date information on our mission and events, including event details and registration. Follow us on LinkedIn at <u>https://www.linkedin.com/in/spwla-boston/</u>.

#### **BRAZIL CHAPTER**

#### **General News**

Our monthly meetings are held online every third Tuesday of the month at 4 pm (Brasilia Time). Anyone wishing to participate is welcomed. We also post chapter updates and meeting links on our LinkedIn page (SPWLA Brazil Chapter) – check us out. For further information about the chapter, please contact our secretary, Leonardo Gonçalves (leonardo.g@petrobras.com.br). Membership in our chapter is free and can be claimed by filling out the form available at https://lnkd.in/g4KQjYf. Meetings are held in Portuguese or English, depending on the speaker's preference. Even if it is held in Portuguese, questions in English are also welcomed!

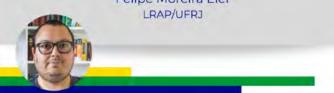
#### **Recent Events**

**15 March 2022**—We had Felipe Moreira Eler, reservoir engineer (Advanced Oil Recovery Laboratory of Universidade Federal do Rio de Janeiro (UFRJ)). The talk entitled "Relative Permeability: Experimental Determination and Its Applications" discussed the main characteristics of rock and fluids that control the relative permeabilities in the formations and presented examples of modeling carried out in the carbonate reservoirs of the Brazilian presalt.



Terça-feira, 15 de março, 16h - Teams meeting

# Relative Permeability: Experimental Determination and Its Applications Felipe Moreira Eler



Invitation to the February monthly meeting of the SPWLA Brazil Chapter.

22-24 March 2022—The Brazil Chapter organized the first Brazilian Meeting of Petrophysics of Mature Fields (Encontro Brasileiro de Petrofísica de Campos Maduros -EBPCM). It was held online. The event was sponsored by 3R Petroleum in the platinum category, by Schlumberger and Halliburton in the gold category, by Solintec, IesBrasil, Baker Hughes, Geologix, Equinor, and Stratum in the silver category, and had the support of ABGP, ABPIP, ANP, and SPWLA International. It featured 26 technical lectures, three mini-courses, and a roundtable discussing the role of artificial intelligence applied to the petrophysics of mature fields. With a total of 197 participants and 60 students in mini-courses from 16 Brazilian states, 38 companies or associations, and 29 educational institutions, the event was essential in the dissemination of petrophysics and formation evaluation and its importance in generating value in the development of mature fields. SPWLA Brasil thanks the organizing committee for its performance and for being responsible for holding an extraordinary event. More information about the event can be found at the website www.ebpcm.com.br and our LinkedIn page www. linkedin.com/showcase/ebpcm.

The topics covered at the event were:

- Economic and commercial aspects
- EOR/IOR applications
- Application of geophysical methods
- Integrated formation evaluation of mature fields
- Application of digital technologies
- Formation evaluation in cased wells
- Revitalization of mature fields
- Artificial intelligence applied to the petrophysics of mature fields

The technical lectures held were:

- Perspective of Mature Fields in Brazil. Speaker: Mariana Cavadinha (ANP)
- Role of Petrophysics for EOR. Speaker: Austin Boyd (LRAP/UFRJ)
- Independent Companies and Mature Fields in Brazil. Speaker: Anabal Alves dos Santos Jr (ABPIP)
- Onshore, Brazil's New Energy Frontier. Speaker: Márcio Félix Carvalho Bezerra (EnP)
- The Importance of Independent Companies for the Rediscovery of the Brazilian Onshore. Speaker: Marcelo Magalhães (Petroreconcavo)
- Equinor's IOR Initiatives. Speaker: Maria Clara Costa (Equinor)
- Reducing Uncertainty and Cost by Designing the Right EOR Study. Speaker: David Enrique Torres Lopez (Stratum)
- Low-Salinity Waterflooding. Speaker: Fernanda Oliveira Hoerle (UFRJ)
- Production Petrophysics and Its Key Role in Enhanced Oil Recovery (EOR). Speaker: Marcelo Esteban Chimienti (V&P do Brasil)
- Analysis Behind Casing. Speaker: Aristides Orlandi Neto (Consultant)
- Use of PNT-Sigma Logs as a Reservoir Management Tool in Oil Fields With Gas Caps. Speaker: Rafael Rabelo Melo (Petrobras)
- Migrating to Casedhole Petrophysics: Are We Ready? Speaker: Ulises Bustos (Schlumberger)
- The Role of Petrophysics and Seismic for CCUS Monitoring. Speaker: Paulo Roberto Schroeder Johann (Petrobras)
- Data Analytics Applied to Onshore Open Data Provided by the ANP. Speaker: Denilson Stefanelli (Deepstrata)
- Correlation and Extension of Well Resistivity Data Using Surface Electromagnetic in Mature Fields. Speaker: Berthold Kriegshäuser (Strataimage)
- Well-Log Solutions in the Evaluation of Mature Fields. Speaker: Diego Ruben Lachter (Baker Hughes)

- Petrophysical Properties and Evaluation of Tight Gas Sands in Onshore Potiguar Basin. Speaker: Alvaro Campassi (Petrobras)
- Use of an Analytics and Data Science Platform, Supported by R and Python, for Descriptive and Predictive Analysis of Well Data. Speaker: Thiago Araujo Dias Moreira (IesBrazil)
- Machine-Learning Applications for Formation Evaluation. Speaker: Jose Montero (Halliburton)
- Making the Most of Digital Cuttings Image During Operations. Speaker: Pablo Enrique Souza Moreira (Geologix)
- Deterministic and Stochastic Modeling to Predict Petrophysics Properties of an Albian Carbonate Reservoir in Campos Basin, Southeast Brazil. Speaker: Antonio Abel González Carrasquilla (UENF)
- The Key to Revitalizing Your Field Is How Dynamic Your Data Is. Speaker: Luis Fernando Quintero (Halliburton)
- Rock Typing as an Alternative for Distribution of Petrophysical Parameters in Peregrino Field. Speaker: Leonardo Beraldo Masutti (Equinor)
- The Application of Pulsating Neutron Logs in Reservoir Monitoring and Mature Field Redevelopment. Speaker: Danielle Scherer Afonso (3R)
- Redevelopment of Mature Fields: Case Study of Polvo Field. Speaker: Audrey Alves Monlevade (Petrorio)
- Production Enhancement Program (PEP). Speaker: Clement Laplane (Schlumberger)
- Availability by the ANP of Public Technical Data of Mature Onshore and Offshore Fields. Speaker: Paulo de Tarso Silva Antunes (ANP)
- The Importance of Petrophysics in the Redevelopment of Mature Fields: A Case Study in the Potiguar Basin. Speaker: Bruno Vale (3R)

The mini-courses held were:

- Relative Permeability: From Basic Concepts to CO<sub>2</sub> Sequestration. Lecturer: Kory Holmes from Núcleo Lab (Core Laboratories)
- Basics of Oil Reservoir Rock Properties. Lecturer: Farid Salomão Shecaira (WisEnergy)
- Introduction to Geomechanics. Lecturer: Bruno Broesigke Holzberg (Schlumberger)

And the roundtable was:

• Artificial Intelligence Applied to the Petrophysics of Mature Fields Panelists:

- Cleyton de Carvalho Carneiro (USP)
- Milena Siqueira Lima (Halliburton)
- Marcio de Araújo Martins (Rock Care)
- Anna Paula Lougon Duarte (Schlumberger)

#### Moderators:

- Sylvia Maria Couto dos Anjos (ABGP)
- Marcos do Amaral de Almeida (ABGP)



Sponsors and supporters of the Brazilian Meeting of Petrophysics of Mature Fields.



Giovanna Carneiro, president of the organizing committee of the EBPCM, presenting the members of the organizing committee.



Giovanna Carneiro introducing petrophysicist Austin Boyd for the lecture, "Role of Petrophysics for EOR."



Gabriel Freitas introducing Luis Quintero for the lecture "The Key to Revitalizing Your Field Is How Dynamic Your Data Is."



Sylvia dos Anjos introducing the panelists of the roundtable.

#### **Upcoming Events**

19 May 2022—We'll host Nora Alarcon presenting "Applications of Pulsed-Neutron Technology in the Determination of Mineralogical Models: A Case Study." Nora Alarcon is a petrophysicist advisor from Baker Hughes. The meeting will happen at 4 pm GMT-3 and can be accessed by a link to be released on our LinkedIn page.

#### CHINA UNIVERSITY OF PETROLEUM (BEIJING) STUDENT CHAPTER

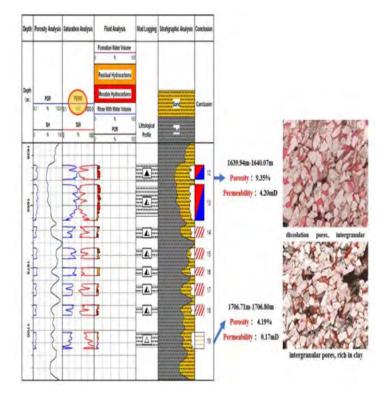
#### **General News**

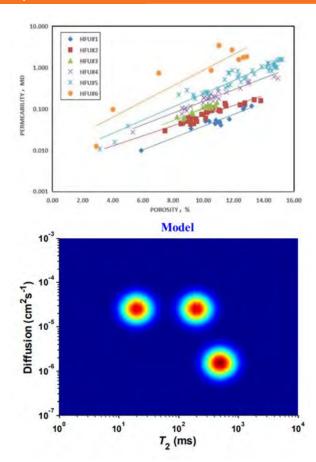
The Logging Department of the School of Geophysics, China University of Petroleum (Beijing) and the SPWLA Student Branch jointly held the ISPC student paper selection activity to select outstanding students to participate in ISPC.

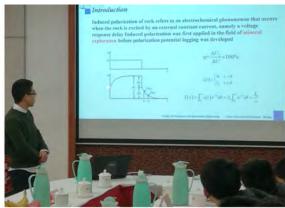
#### **Recent Events**

**19 March 2022**—The ISPC student paper selection activity jointly organized by the Logging Department of the School of Geophysics and the SPWLA Student Branch was successfully concluded. The activity attracted many students majoring in logging and petrophysics to participate. This event aims to select outstanding students to participate in ISPC. This activity can provide students with an opportunity for international academic exchanges, allowing students to learn more about the academic frontiers at home and abroad. A total of two doctoral students and five master's degree students gave academic reports at this event, covering machine learning, petrophysics, logging while drilling, nuclear magnetic resonance, and many other fields. In the end, the SPWLA student chapter will send the judges' scores and students' reports to SPWLA headquarters to help SPWLA headquarters select outstanding students to participate in this year's ISPC meeting.

The following are some photos of the event and the wonderful report content display:









#### **Upcoming Events**

Next, the SPWLA Student Branch of China University of Petroleum (Beijing) will continue to host related academic exchange activities to further enhance the influence of the SPWLA Association.

#### **COLOMBIA CHAPTER**

#### **Recent Events**

Meeting date	Speakers	Papers presented
03/03/2022	Ulises Bustos,	Migration to Casedhole Petrophysics: Are
	Schlumberger We Ready?	

Chapter Officers

Miembro	Cargo SPWLA COL	Empresa	Linkedin
Maria Florencia Segovia	President	Ecopetrol	https://www.linkedin.com/in/maria- florencia-segovia-64bba933/
Ulises Bustos	Vicepresident	Schlumberger	https://www.linkedin.com/in/ulises- bustos-33538465/
Darling Criollo	Secretary	Halliburton	https://www.linkedin.com/in/darling criollo-9b502933/
Maria Isabel Sandoval	Treasurer	UIS	https://www.linkedin.com/in/maria- isabel-sandoval-martinez-8aa40663/
Maika Gambús Ordaz	Vocal1	UIS	https://www.linkedin.com/in/maika gambus-1a925443/
Victoria Mousalli	Vocal2	UIS	https://www.linkedin.com/in/victoria mousalli-26171655/



SPWLA Colombia Chapter Officers.



Petrofísica Bogota, Distrito Capital, Colombia - Información de contacto

LinkedIn account for the professional chapter: <u>https://www.linkedin.com/</u> in/spwla-colombia-capitulo-profesional-9b961322a/.

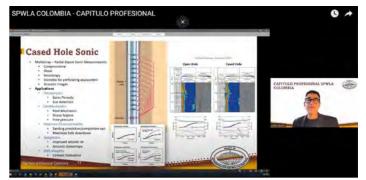


- https://www.facebook.com/groups/442029800780761
- https://www.accoorcom/Brook/~corsonoror
- https://www.linkedin.com/in/spwla-colombia-capitulo-profesional-9b961322a/

SPWLA Colombia Social Media.



Flyer published for the presentation: "Migration to Casedhole Petrophysics: Are We Ready?"



Presentation: "Migration to Casedhole Petrophysics: Are We Ready?"



Attendance for the presentation: "Migration to Casedhole Petrophysics: Are We Ready?" (A video of the event can be found at: https://www. youtube.com/watch?v=5M3ihU8I\_g8)



Participation as a judge in the Student Paper Contest Country (SPWLA UIS) level in Colombia held on March 25, 2022.

#### **Upcoming Events**

Meeting date	Speakers	Papers presented		
	Andres Mantilla, Ecopetrol	Energy Transition: Present and Future		
		Visions for Colombia.		
05/12/2022	Robert Laronga, Schlumberger	Petrophysics Workflow Applied to CCS		
05/12/2022 Mike Simmons, Halliburton		Digital Geoscience Technology and		
		Screening for Carbon Storage		
	Kristy Kirkman, Schlumberger	Title to be confirmed		



5.05pm – 5.15pm: Andrés Mantilla (CEO ICP, Ecopetrol) Energy Transition: Present and Future Visions for Colombia.

5.15pm - 5.20pm: Q&A Section

5.45pm - 5.50pm: Q&A Section

5.20pm – 5.30pm: Robert Laronga (Petrophysics Domain, Principal Geologist, & Unconventional Domain Team Lead at Schlumberger) Petrophysics Workflow applied to CCS 5.30pm – 5.35pm: Q&A Section



5.35pm – 5.45pm: Mike Simmons (Technology Fellow for Geoscience and the Energy Transition • Landmark Software & Services) Digital Geoscience Technology and Screening for Carbon Storage



5.50pm – 6.00pm: Kristy Kirkman (Project Manager (CEC) for RCA, SCAL, EOR, Digital Rocks (Core Flow), and Petrology) *Title to be confirmed* 6.00pm – 6.05pm: Q&A Section

Tentative Agenda for the Event: "How Does Formation Evaluation Fit Into Energy Transition?"

Planning of additional activities for 2022 and weekly meetings.

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#### FORMATION EVALUATION SOCIETY OF AUSTRALIA (FESAUS)

#### General News

FESAus, the Australian chapter of SPWLA, combines the formation evaluation societies from around Australia, predominantly Western Australia, as well as FESQ, New South Wales, Victoria, and South Australia. Our meetings are held on the second Tuesday of each month in person for those in Perth and online via a Schlumberger-hosted webinar. Webcasts of the presentations are also available soon after for members to review as they wish. We welcome new members to visit www. fesaus.org for meeting information. From February this year, we've moved to webinar technical presentations due to the increased restrictions in Perth, Western Australia, as we finally open our interstate and international borders. We hope to reintroduce meetings in person in the near future.

Our committee meetings are now held via Zoom as we all work in our various home offices, and we welcome new committee members with open arms.

#### **Recent Events**

15 February 2022—Haifeng Wang (Schlumberger) presented "New-Generation Multilayer Mapping-While-Drilling Technology and Its Applications" to an online group of listeners to start our 2022 year. The technology showcase was interesting with applications to reservoir modeling and updates in real time.



Haifeng Wang

8 March 2022—Joining us for International Women's Day, we had an interesting and timely presentation from Ishtar Barranco of Chevron entitled "What Is Carbon Capture and Storage and the Role of Geoscientists in This Energy Transition Technology?" Our chapter has been increasingly interested in this subject, so it was wonderful to have Ishtar provide such a detailed overview of CCS around the world and what our role(s) will be in the near future.



Ishtar Barranco

#### 2022 Committee Members

2022 Committee Memo	515
Martin Kennedy	President
Wesley Emery	Past-President, Treasurer
Nigel Deeks	Treasurer, Audio Visual Coordinator
Vacant	Company Secretary
Vacant	Assistant Treasurer
Diego Vasquez	Website Coordinator/
	Data Standards Focal Point
Zeyn Safarkhanlou	Monthly Meeting Coordinator
Yang Xingwang	Audio Visual Coordinator
Bronwyn Djefel	Newsletter Coordinator/
	Inter-Society Liaison/
	New Technology Forum Coordinator
Sally Edwards	Queensland Representative
Ashish Datey	Victoria Representative
Harris Khan	NSW Representative
Matthew Pfahl	South Australian Representative
Vacant	Secretary/Social Coordinator/
	Special Events and Awards
Vacant	Membership Coordinator
Vacant	New Technology Forum Coordinator
Vacant	Education Group Leader
Vacant	Sponsorship Coordinator

#### FORMATION EVALUATION SOCIETY OF MALAYSIA (FESM)

#### **General News**

FESM, a local chapter of the Formation Evaluation Society of Malaysia, is based in Kuala Lumpur. Technical meetings are held on the fourth week of each month. For meeting information, please visit our chapter website at <u>www.fesmkl.</u> <u>com</u>.

#### **Recent Events**

- **30** March 2022—FESM hosted the first Virtual Series Technical meeting for 2022 with the topic of " $CO_2$ Monitoring Using Advanced PNL Techniques" by Dr. Laurent Mossé, technical director of petrophysics (Schlumberger Reservoir Performance Evaluation), and Chiara Cavalleri, principal petrophysicist (Schlumberger Eastern Hemisphere Domain Center). During the course of the presentation, they reviewed the principles of  $CO_2$ monitoring with a PNL technique for first evaluation as well as time-lapse analysis, described the role of multiple independent pulsed-neutron measurements sensitive to  $CO_2$ , and presented the common assumptions made in the process together with their limitations and potential complications. The method was illustrated with several real monitoring examples.
- 21 April 2022-FESM hosted the second Virtual Series Technical meeting for 2022 with the topic of "A New Method to Predict FWL Based on Porous Plate Capillary Pressure and Resistivity Relationship" by Willy Tan, petrophysical advisor (Hibiscus Petroleum Berhad). During the talk, he corroborated the proposed method by combining both data from the resistivity index (RI) from the porous plate and capillary pressure at an identical saturation state. The new " $P_{r}/R_{t}$  vs.  $S_{w}$ " plot exhibits an exponential behavior, which then correlated to permeability. Once core plugs relationships are established, the log-based capillary pressure (P, laboratory condition) can be estimated from the resistivity, water saturation, and permeability logs. The reservoir condition P<sub>c</sub> is interpreted as reservoir condition buoyancy pressure  $(P_{b})$ . We then subtract this reservoir condition  $P_{h}$  from the hydrocarbon pressure established by the formation tester. Finally, a water line with a known gradient (e.g., 0.433 psi/ft) can be drawn across the predicted log-based buoyancy pressure. FWL is located at the intersection between this "pseudo" water line and hydrocarbon line established from the formation tester.

#### **Chapter News**

#### HOUSTON CHAPTER

#### **General News**

The SPWLA Houston Chapter continues hosting more inperson events. Recently, we organized a Social Networking Event. The event was a success demonstrating that the petrophysics community in Houston continues to be strong and engaging! A significant group of members gathered to enjoy a beautiful evening with drinks and food on March 10 at the Cedar Creek Bar & Grill. Members of all ages, backgrounds, and experiences joined in to socialize and have fun while talking about technical and nontechnical topics related to petrophysics. Five SPWLA International former presidents and other international and local board members were in attendance. A huge thanks to GEOLOG International for sponsoring this event and to Neal Cameron and his team for facilitating this fruitful cooperation! Furthermore, we would like to thank Scott Cintula (Quad Operations Inc) for presenting his work titled "Pore Pressure and Fracture Gradient Principles and Practical Applications: Rigsite vs. Remote" to our chapter members and other attendees who were interested in the topic. Moreover, a huge thanks to Quad Operations for sponsoring this event and GEOLOG International for providing the venue.

We also consistently support great initiatives proposed by student chapters. This time, the Houston Chapter President, **Javier Miranda**, had the opportunity to serve as a judge for the student paper competition organized by the SPWLA UH Student Chapter! It was a high-level contest, and we have no doubt the University of Houston will be well represented at the SPWLA 63rd Annual Symposium in Stavanger, Norway! Good luck to the contest winners, **Andres Villarroel** (MSc) and **Ahmed Kasha** (PhD). Go Coogs! Thanks to **Ajibola Samo**, SPWLA President UH Chapter, and his team for organizing this important event and inviting us.

The SPWLA Houston Chapter has already scheduled many interesting events, and many more are currently being planned. On April 27, we hosted a talk on "Deep and Ultradeep Resistivity Tools for Horizontal Wells Geosteering," presented by **Igor Kuvaev** (ROGII). **David Kennedy** (QED Petrophysics LLC) will be giving a talk titled "Generalizing the Geometrical Factor Theory" on May 11. Additionally, the Houston Chapter of SPWLA supported the **SPE Spring 2022 Energy Professional Hiring Event**, which took place on April 26, and the **Charity Golf Tournament**, organized by GEOLOG, taking place on May 11. We are also having our last social networking event of spring 2022 before we go to the annual symposium. We hope to see you at at least one, if not all our upcoming events. Interesting events are coming to Houston in fall 2022 and spring and summer 2023! Stay tuned! We will announce them when we are allowed to. We are bringing great activities to our SPWLA community and beyond!

If you would like to receive notifications of upcoming events and chapter news, please go ahead and **register on the new SPWLA Houston Chapter website, even if you were registered before**. Additionally, there are multiple interesting sponsorship opportunities and job postings announced there. Contact our board in case you have a presentation you would like to share.

Finally, our **Houston Chapter is having elections in May**. Please stay tuned for further announcements. I encourage you to participate. All positions (except webmaster) are open for election, and the term is **June 2022–June 2024**. Please stay tuned and check it out for upcoming news! As always, feel free to contact any of the board members if you have any questions or comments using our contacts included below.

#### **Recent Events**

10 March 2022—SPWLA Houston Chapter Social Networking Event: Once again, the Houston Chapter of SPWLA Social Networking Event was a success! The petrophysics community in Houston continues to be strong and engaging! A significant group of members gathered to enjoy a beautiful evening with drinks and food at the Cedar Creek Bar & Grill. Members of all ages, backgrounds, and experiences joined in to socialize and have fun while talking about technical and nontechnical topics related to petrophysics. SPWLA International former presidents and other international and local board members were in attendance, in addition to the SPWLA Houston Chapter President. A huge thanks to GEOLOG International for sponsoring this event and to Neal Cameron and his team for facilitating this fruitful cooperation! We hope to see y'all there next time!



**Supporting Student Chapters of SPWLA:** The Houston Chapter consistently supports (financially and otherwise) great initiatives proposed by student chapters. This time, the

SPWLA Houston Chapter President Javier Miranda served as a judge for the student paper competition organized by the SPWLA UH Student Chapter! It was a high-level contest, and the University of Houston will be well represented at the SPWLA 63rd Annual Symposium in Stavanger, Norway! Good luck to the contest winners, Andres Villarroel (M.Sc.) and Ahmed Kasha (Ph.D.). Go Coogs! Thanks to Ajibola Samo, SPWLA President UH Chapter, and his team for organizing this important event and inviting us.

- 13 April 2022—SPWLA Houston Chapter September Lunch Seminar: SPWLA Houston Chapter recently organized a lunch seminar with Scott W. Cintula (Quad Operations Inc.) titled "Pore Pressure and Fracture Gradient Principles and Practical Applications: Rigsite vs. Remote." This seminar was well attended, and we had a great Q&A session. We would like to thank Scott for presenting his work to our chapter members and other attendees who were interested in the topic. Moreover, a huge thanks to Quad Operations for sponsoring this event and GEOLOG International for providing the venue.
- **26** April 2022—The Houston Chapter of SPWLA proudly supported the SPE Spring 2022 Energy Professional Hiring Event, organized by the SPE-GCS, at the Radack Community Center (and online). As a result, current professional members of the SPWLA Houston Chapter were entitled to participate as job seekers. This event provided job seekers with opportunities to meet with potential energy industry hiring companies in upstream oil and gas and renewables. The event also featured discipline-driven networking suites hosted by collaborating organizations and companies. Each suite engaged in industry-related topics and provided job seekers opportunities to network and learn about different segments of the industry.



#### More details are available on the Houston Chapter's website https://www.spwla-houston.org/

and the Houston Chapter LinkedIn profile https://www. linkedin.com/company/houston-chapter-of-spwla/

#### Always stay tuned!

**27** April 2022—Lunch Seminar: "Deep and Ultradeep Resistivity Tools for Horizontal Wells Geosteering" was presented by Igor Kuvaev (ROGII).

#### **Upcoming Events**

- 10 May 2022—Charity Golf Tournament: The Houston Chapter of SPWLA would like to invite you to join us at the Charity Golf Tournament that is being organized by GEOLOG and supported by our chapter. This charity event will take place at the BlackHorse Golf Club. Proceeds will be donated to science programs for school districts in Houston and the surrounding area. SPWLA Houston Chapter will donate some prizes for door raffles. For more details, please, check the image below with Neal Cameron's contact info or email the president of the Houston Chapter of SPWLA (president@spwla-houston.org)
- 11 May 2022—Lunch Seminar: "Generalizing the Geometrical Factor Theory" will be presented by David Kennedy (QED Petrophysics LLC). It will be held from 11:30 am– 1:00 pm at DeGolyer and MacNaughton 5151 San Felipe St., Houston, Texas 77056, Live Oak Conference Room at Sage Plaza Lobby.





The SPWLA Houston Chapter President Javier Miranda delivering one of the raffle prizes.



VIP photo session with former SPWLA presidents. (From left to right, front row) Matt Bratovich (2010–11), Terry Quinn (2008–09), Jesus Salazar (2019–20), Zhipeng Liu (2018–19), and (back row) Elton Frost, Jr. (2013–14).



Petrophysicists, geologists, and geophysicists enjoying great weather, food, drinks, and, most importantly, each other with face-to-face interactions.



The SPWLA Houston Chapter President Javier Miranda delivering one of the raffle prizes to Jesus Manucci (Expro).



The former SPWLA president Jesus Salazar (2019–20) receiving a raffle prize from the SPWLA Houston Chapter President Javier Miranda.



VIP photo session with former SPWLA presidents and SPWLA Houston Chapter President Javier Miranda. (From left to right, front row) Javier Miranda, Matt Bratovich (2010–11), Terry Quinn (2008–09), Jesus Salazar (2019–20), Zhipeng Liu (2018–19), and (back row) Elton Frost, Jr. (2013–14).



The SPWLA Houston Chapter President Javier Miranda delivering one of the raffle prizes to Elton Frost, Jr., SPWLA International President 2013–2014.



Our sponsor GEOLOG North America Sales Manager Neal Cameron (left), with the SPWLA Houston Chapter President Javier Miranda.



The GEOLOG North America Sales Manager Neal Cameron delivering one of the raffle prizes. The charcuterie board raffle prizes were a hit that all winners enjoyed!



VIP photo session with former SPWLA presidents and board members supporting GEOLGO, the sponsor of this SPWLA Houston Chapter Social Networking Event.



Another successful SPWLA Houston Chapter Social Networking Event due to the strong participation of the Houston Metro Area petrophysics community.



The SPWLA Houston Chapter President Javier Miranda delivering one of the raffle prizes. **CNC Houston Creations** (<u>cnchoustoncreations@gmail.</u> <u>com</u>) kindly supported the engraving of charcuterie board prizes.



Another successful SPWLA Houston Chapter Social Networking Event due to the strong participation of the Houston Metro Area petrophysics community.



Lively discussions about technical and nontechnical topics related to petrophysics.



Face-to-face interactions about technical and nontechnical topics related to petrophysics.



SPWLA members enjoyed in-person interactions after a long time of not seeing each other.



The charcuterie board raffle prizes were a hit! Here, SPWLA Houston Chapter President Javier Miranda and VP Bernd Ruehlicke presenting the gifts.



The former SPWLA President Jesus Salazar (2019–20) and the SPWLA Houston Chapter President Javier Miranda enjoying a craft beer.



Scott Cintula (Quad Operations Inc) presenting his work titled "Pore Pressure and Fracture Gradient Principles and Practical Applications: Rigsite vs. Remote."



The SPWLA Houston Chapter President Javier Miranda delivering an appreciation gift to the speaker Scott Cintula.

#### SPWLA Houston Chapter Board for 2020–2022 (Chapter Elections in May 2022!)



#### HYDROCARBON RESERVES SIG

#### **General News**

The SPWLA Hydrocarbon Reserves SIG board had its first open meeting with a couple of guests. An invitation was sent to others, but no reply was received. Javier Miranda, SIG VP, started with an introduction and short summary of how this SIG was started back in late 2019 and early 2020. The pandemic posed a challenge to our SIG as no in-person meetings were possible at the time. However, we moved forward with our SIG proposal and got approval from the SPWLA International board in 2020. Several initiatives and work have been put together after that, including Chapter 5, dedicated to petrophysics to complement reserves discussion, as part of the work in progress done with the Oil and Gas Reserves Committee (OGRC). Luis Quintero, SIG President, followed with a discussion about the approach of the SIG so far, topics that have been dealt with or addressed, among other aspects. He also spoke about the organization of the upcoming workshop to be held in Stavanger, Norway, the SPWLA Annual Symposium.

The meeting continued with a presentation from Harald Bolt about depth uncertainty in well logging. Depth uncertainty is an important issue discussed among petrophysicists for decades. Certainly, a topic that we all agree on that is difficult for getting a consensus on is how to best approach it. A suggestion is to provide firm guidelines. Since depth and depth-related parameters are of paramount importance in reserves estimation, we strongly support more discussion in a future SIG Chapter meeting.

The SPWLA Hydrocarbon Reserves Special Interest Group (SIG) board of directors are also preparing a formal introduction to the group during the International Symposium in June. We hope other hydrocarbon reserves enthusiasts will eventually join us, especially after the annual meeting in Stavanger.

Our chapter board is conformed of individuals involved in reserves evaluations representing the most recognized companies on this subject as follows:

President	Luis Quintero (Halliburton)
Vice-President	Javier Miranda
	(DeGolyer and MacNaughton)
Secretary	Cecilia Flores (Ryder Scott)
Treasurer	Joshua Oletu (Gaffney, Cline &
	Associates)

We have been working for our members on several fronts, especially with OGRC, thanks to a very dynamic team that is poised to do our best to bring valuable contributions

to our society. We encourage those who are interested in this important topic to participate in our upcoming workshop in Stavanger, Norway, and become part of our SIG by being involved in other activities. The tentative agenda for this workshop is shown as follows:

#### Tentative Agenda in Stavanger, Norway (June 12, 2022)

Start Time	End Time	Topic	Person in charge
8:00	8:30	Welcome, introductions, general agenda overview	Luis Q./Javier M.
8:35	9:30	PRMS and other guidelines overview	Luis Q.
9:35	10:10	Petrophysics in resources and reserves estimation	Javier M.
10:10	10:40	Coffee Break	SPWLA
10:45	11:30	Net pay	Luis Q.
11:35	12:00	Petrophysical Cutoffs and Their Impact Over Net Pay and Volumetrics	Javier M.
12:00	13:00	Lunch	SPWLA
13:00	14:00	Evaluation & Integration Methods	Phil G.
14:00	14:50	Guidelines for Input to Resources and Reserves Evaluation	Luis Q./ Javier M./ Phil G.
14:50	15:10	Coffee Break	SPWLA
15:15	16:30	Examples: Basic Logging Suite in Conventional Clastic Reservoirs Coupling Basic Logs With NMR in Carbonate and Complex Reservoirs Thinly Laminated, Low-Resistivity Reservoirs Integrating production Logging Test to Determine Net Pay In Laminated Sands Re-evaluation of Residual Oil Saturation	Luis Q./ Javier M. / Phil G.
16:30	17:00	Concluding remarks, other topics of interest. The way forward for Chapter 5 of Petrophysics. Attendees' feedback, general discussion, future updates, and upcoming SIG board	Luis Q./ Javier M. / Phil G.

**Content of this training is prepared by:** Luis Quintero, Javier Miranda, Joshua Oletu, Cecilia Flores, and Philip Gibbons.

Finally, we want to announce more details about our SIG will be posted on the spwla.org website very soon. We hope you like the changes and new details and contact information included that will make it easier and quicker to interact with our members. Please stay tuned and check it out!

#### **Upcoming Events**

- 12 June 2022—SPWLA Symposium Workshop #6: "The Importance of Petrophysics in Resources and Reserves Estimation" in Stavanger, Norway. Website open for registration: <u>https://www.spwlaworld.org/</u><u>workshops-2022/</u>
- 12 June 2022—New board discussion in Stavanger, Norway (June 12, 2022)
- **TBD**—Depth Uncertainty discussion, Guest speaker: Harald Bolt (Depth Solutions), date and location to be announced.

#### **IGUP STUDENT CHAPTER-PAKISTAN**

#### **General News**

We hope everyone is enjoying good health. SPWLA IGUP Student Chapter-Pakistan will resume in-person meetings for upcoming events. Technical meetings are held on the second and fourth week of each month. Moreover, SPWLA IGUP Student Chapter-Pakistan is currently focused on promoting the chapter and engaging the different universities of Pakistan to address the challenges facing students in Pakistan.

#### Boards of Directors (2021–22)

The names of the board of directors with their designation and contact details are as follows:

Dr. Muhammad Armaghan Faisal Miraj	Faculty Advisor
<u>armghan.geo@pu.edu.pk</u>	
Mr. Muhammad Bilal Malik	President
<u>bilalmalik00791@gmail.com</u>	
Miss Pal Washa Shahzad Rathore	Vice-President
<u>palwashashahzad97@gmail.com</u>	
Mr. Rana Faizan Saleem	Secretary
ranafaizan7737@gmail.com	
Mr. Sher Afgan	Treasurer
sherafgan1994@gmail.com	
Miss Maha Ali Haider	International
mahaalihaider26@gmail.com	Relations
	Chairperson
Miss Irza Akhtar	Membership
irzaakhtar1999@gmail.com	Chairperson

**Event Manager** 



Board of Directors of SPWLA IGUP Student Chapter-Pakistan (2021-22).

#### **Recent Events**

- 26 March 2022—Recently, SPWLA IGUP Student Chapter-Pakistan organized an Internal Student Chapter Paper Contest (ISCPC-22) at the Department of Earth Sciences, Quaid-e-Azam University, Islamabad, Pakistan. The main themes of the Internal Student Chapter Paper Contest (ISCPC-22) were:
  - 1. Formation Evaluation of Conventional Reservoirs
  - 2. Formation Evaluation of Unconventional Reservoirs
  - 3. Automated Methods of Formation Evaluation
  - 4. Specialized Measurements, Techniques, and Interpretation Methods
  - 5. Core and Well-Log Integration
  - 6. Case Studies

SPWLA President Miss Katerina Yared welcomed all the guests on behalf of SPWLA and SPWLA IGUP Student Chapter-Pakistan. Three chief guests were invited from the oil and gas industry to judge the Internal Student Chapter Paper Contest (ISCPC-22) and the names of them are as follows:

- 1. Mr. Irfan Hameed [chief petrophysicist (RMD), OGDCL, Islamabad]
- 2. Mr. Ahsan Javed Deo [senior petrophysicist (RMD), OGDCL, Islamabad]
- 3. Mr. Muhammad Safdar [principal petrophysicist, Schlumberger, Islamabad]

All the presenters presented well, and then judges shortlisted the three top candidates among the presenters, and trophies were awarded to them. The names of the position holders are given below:

- 1. Muhammad Bilal Malik (M. Phil student, Quaid-i-Azam University, Islamabad)
- 2. Maha Ali Haider (PhD student, University of the Punjab, Lahore)
- 3. Izaz Hassan (BS student, University of Malakand)

Mr. Shan Shahzad

shan.mphil.geo@pu.edu.pk

#### THEMES

- 1. Formation Evaluation of Conventional Reservoirs
- 2. Formation Evaluation of Unconventional Reservoirs
- 3. Automated Methods of Formation Evaluation

AUTHOR'S GUIDELINE

Your abstract (500-600 words) should be in

Doc format. Make sure your abstract includes

Describes the problem that motivates the

- 4. Specialized Measurements, Techniques and Interpretation Methods 5. Core and Well-Log Integration
- 6. Case Studies

#### INTRODUCTION

SPWLA IGUP Student Chapter-Pakistan is inviting the BS, MS and PhD students to submit their abstracts for the Internal Student Chapter Paper Contest (ISCPC-22). Students with outstanding abstracts will get a chance to present in ISCPC. Three papers (winning nominations from the ISCPC) from each degree level (BS, MS and PhD) n submitted Student Pap Submiss

submitted to SPWLA for International Student Paper Contest.	Describes the approach to the problem solution with particular emphasis or innovative procedures that differentiate the
Submission	methods.
Send abstracts at: spwla.igup.pak@gmail.com Deadline	<ol> <li>Result and Conclusions         Describes the significant results and major technical contributions, tesson learned from the study, application of the findings and opportunities to further deploy methods.     </li> </ol>
Abstract Submission	Contact Information
March 22 Acceptance Notification	Venue: Notified via email Website: www.facebook.com/spwla.iguppak email: spwla.igup.pak@gmail.com Ph: 0333-4242056, 0333-5954449

the following:

paper proposal 2) Methodology

1) Problem Statement

Flyer for the Internal Student Chapter Paper Contest (ISCPC-22).

IGUP		ENT CHAPTER PAPE	R
	Organized by SPWLA IGU	STUDENT CHAPTER PAKISTA	NN
2. Formation 3. Automated 4. Specialized	Evaluation of Convention Evaluation of Unconventi Methods of Formation E Measurements, Techniq Vell-Log Integration	onal Reservoirs	th March 2022
6. Case Studi	es	HI-TEA AND LUNCH SPONSORED BY	
Contraction of Contract	n Univeristy, Islamabad	Schlumberger	
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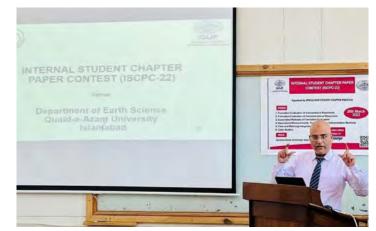
Flex flyer for the Internal Student Chapter Paper Contest (ISCPC-22).



SPWLA President Katerina Yared giving THE welcoming note to the audience and judges,



Mr. Shan Shahzad (event manager, SPWLA IGUP) reciting the verses of the Holy Quran.



Mr. Irfan Hameed, chief petrophysicist (RMD), OGDCL, Islamabad, giving his remarks about the Internal Student Chapter Paper Contest (ISCPC-22).



Mr. Muhammad Safdar, principal petrophysicist (Schlumberger), Islamabad giving his remarks about the Internal Student Chapter Paper Contest (ISCPC-22).



Mr. Irfan Hameed, chief petrophysicist (RMD), OGDCL, Islamabad, giving the first position award to Mr. Muhammad Bilal Malik (M. Phil Category).



Mr. Muhammad Safdar, principal petrophysicist (Schlumberger), Islamabad, giving the second position award to Miss Maha Ali Haider (PhD Category).

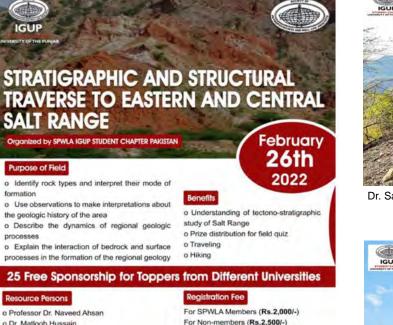


Mr. Ahsan Javed Deo, senior petrophysicist (RMD), OGDCL, Islamabad, giving the third position award to Izaz Hassan (BS Category).



Group Photo of SPWLA IGUP Student Chapter team after the ISCPC-22 competition

**26 February 2022**—SPWLA IGUP Student Chapter-Pakistan organized a one-day field excursion to the Eastern and Central Salt Range (a geological field museum), Pakistan, to understand the tectono-stratigraphic framework of both parts of the Salt Range. It was a great opportunity to learn the geodynamics of the Salt Range. Resource people (Prof. Dr. Naveed Ahsan, Dr. Saif-Ur-Rehman, and Dr. M. Armaghan Faisal Miraj) from the Institute of Geology, University of the Punjab conducted the fieldwork. Moreover, SPWLA IGUP shirts were awarded to the geology quiz winners.



p Professor Dr. Naveed Ahsan Dr. Matloob Hussain	For SPWLA Members (R: For Non-members (Rs.2,	
o Dr. Saif-Ur-Rehman o Dr. Muhammad Armaghan Faisal o Mr. Abdul Hannan	Pay via Jazz Cash (03007 Easypaisa (03117404009) send screenshot after payment	125570)
Contact	Contact for SPWLA Me	mbership
Vebsite: www.facebook.com/spwla.iguppak	+92 311 7023490 Register Here	
amail: spwla.igup.pak@gmail.com Ph: 0333-4242056, 0333-5954449	https://bit.ly/3svQ8kK	包括新
the second statement of the se	ture	
Institute of Geology, University of the Punjab Q	uaid-e-Azam Campus, Lahore 545	90, Pakistan.

Flyer for the one-day field excursion at the Salt Range (geological museum).



Dr. Saif-Ur-Rehman (associate professor) delivering a field lecture to the participants of the field excursión.



Dr. Muhammad Armaghan Faisal Miraj (faculty advisor, SPWLA IGUP) delivering a field lecture to the participants of the field excursion.



Prof. Dr. Naveed Ahsan (director, Institute of Geology, University of the Punjab) giving a field lecture to the participants of the field excursion.



Group photo of the participants during the field excursion.

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Group photo at Escape Hotel, Lake Road, Kallar Kahar, Chakwal, Punjab, after the field excursion.



Lunch at Escape Hotel, Lake Road, Kallar Kahar, Chakwal, Punjab, after the field excursion (boys).



Group Photo of SPWLA IGUP Student Chapter team after the field excursion with one of the resource people, Prof. Dr. Naveed Ahsan (director, Institute of Geology, University of the Punjab).

#### **Upcoming Events**

SPWLA IGUP Student Chapter-Pakistan is planning to organize a webinar for students in the next month. More details about the upcoming events and updates can be seen on our social pages at:

LinkedIn: <u>https://www.linkedin.com/in/spwla-igup-student-</u>chapter-pakistan-57b116219/

Facebook: <u>https://www.facebook.com/SPWLA-IGUP-</u> Pakistan-107338908181070

Contact Details: <a href="mailto:spwla.igup.pak@gmail.com">spwla.igup.pak@gmail.com</a>

#### **INDIA CHAPTER**



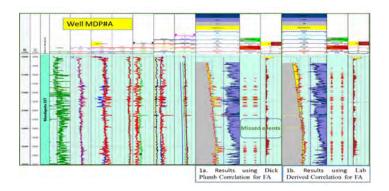
Lunch at the Escape Hotel, Lake Road, Kallar Kahar, Chakwal, Punjab, after the field excursion (girls).

# The Triaxial Journey at ONGC: Unravelling Uncertainties Step by Step

Authors: Alok Gupta, Sanjeev Lakhera, Vinod Kumar, VLN Avadhani - CEWELL, ONGC Vadodara

The domain of geomechanics took a giant leap in the E&P industry during the last two decades. Starting with a focus on addressing borehole stability issues, it has graduated into the domain of reservoir geomechanics and touches each and every stage of E&P workflow. For tight and unconventional reservoirs, geomechanics is integral to the reservoir characterization workflow and in deciding exploration and exploitation strategies. ONGC is closely following these developments and evolving its workflows accordingly. As the scope of work for geomechanical workflows expanded, so did the need to address various uncertainties. To address some of these uncertainties, a Triaxial Rock Testing Facility was established at CEWELL, Vadodara, in 2019. Concerted efforts were made to take conventional cores in key wells in tight reservoirs in the Western Region (Nawagam, Gamij, Ahmedabad Fields) and Southern Region (Mandapeta and

Malleswaram Field). As a first step, localized dynamic vs. static correlations were generated for mechanical properties (UCS, Young's modulus, and Poisson's ratio), which helped to finetune the 1D MEMs. However, the real value comes from the statistical analysis of the database generated over the past 2 years. A small but relevant case is presented to highlight this. Generally, a borehole is relatively more rugose against shales compared to sands. However, in Mandapeta Field, KG Basin, an opposite trend is seen against the Mandapeta Formation. Shales are seen to be more stable than sands. The borehole failure trends also could not be modeled perfectly even while using triaxial lab-derived correlations for UCS, Young's Modulus and Poisson's ratio, and Dick Plumb correlation (DPC) for friction angle (FA) (Well MDP#A, Fig. 1a). The triaxial data generated across four wells in the area were therefore analyzed for observing trends in all geomechanical parameters, including FA. The data revealed trends just opposite of the Dick Plumb correlation. The FA vs. (1-PHIT) trend seems to provide a better correlation for FA. The 1D MEM with this core-based correlation (Fig. 1b) was able to model all the borehole failures in a much better way in the present well and the other four wells in the area. As more and more triaxial experiment data are being added to the database, the possibilities to understand field-specific and generalized sensitivity in different Indian basins are being explored. These reports are being percolated down as standard parameters to be used in different study areas.



#### Petrophysical Uncertainty Analysis in Deterministic Method – Discussion on Various Workflows and Approaches

Authors: Anish Krishnapillai (Emerson Exploration and Production Software)

**Introduction:** In any petrophysical interpretation, there is always uncertainty in the results due to the parameters used in the equations or even the equation itself. It is often the case where the parameters or the equations used by the interpreter are based on his experience and knowledge of the

reservoir available during the interpretation. This will finally lead to an interpretation with a single value for hydrocarbon in place. However, during the project economic viability study, we need to consider the possible upside and downside of the interpretation. To do this, the Monte Carlo technique is used to quantify the uncertainties and their impact on the result. Principally, the uncertainty in petrophysical interpretation is due to the following factors such as random uncertainty (measurement noise and formation heterogeneity), systematic uncertainty (log calibration errors), and modelbased uncertainty (different interpretation models). Therefore, it is important to quantify the uncertainty and to know the best workflow/approaches pursued while analyzing the uncertainty. A discussion and benefits of the different workflow/approaches of uncertainty analysis for deterministic petrophysical evaluation are given below.

#### Discussion about Deterministic Uncertainty – Workflow/ Approaches

Monte Carlo processing involves running a calculation, or a series of calculations, many times, while randomly varying each measurement and parameter within a given statistical distribution to reflect the analyst's uncertainty in those variables. From this process, many results are obtained, showing the range and distribution of possible answers given the uncertainty described.

First, we will discuss the different Monte Carlo workflows generally used in deterministic uncertainty analysis. In a deterministic method, a petrophysicist calculates the formation properties like shale volume, porosity, and saturation in a series of steps. It is possible to run each step in the process many times using different parameters. The output from each step will be either a mathematical distribution which closely matches the results or a set of three curves showing most likely, high, and low values for each result. These outputs are then used as input for subsequent steps in the process. For example, Vsh could be run through a Monte Carlo process, then three versions of the Vsh curve could be used as input for the porosity calculations. This kind of Monte Carlo analysis step is known as "modular workflow."

Apart from modular workflow, it is also possible to run a complete deterministic analysis in one step, starting from shale volume to saturation in a single step, and this step can be repeated with varying parameters in the range defined and can generate a distribution of output curves. This workflow is known as "single workflow." Modular workflow analysis can increase the uncertainty when results from different modules which are dependent on each other are used in subsequent modules. For example, if porosity and saturation

are both calculated with possible error bars, then the porosity uncertainty would be present in both the porosity and saturation error distributions. And these are used further to determine the bulk volume of hydrocarbons in place. This leads to a situation where a combination of porosity and saturation uncertainty will be part of Monte Carlo results, but which cannot coexist.

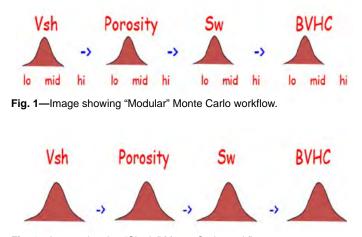


Fig. 2-Image showing "Single" Monte Carlo workflow.

In a single workflow, each individual iteration gives a set of results that represent a valid interpretation. These results can be sorted based on the final computation, usually oil in place, and actual P90, P50, and P10 results are produced. Another benefit of the single workflow technique is that a sensitivity analysis can be run, which gives the relative contribution of each log and parameter to the overall uncertainty based on how much each one influences the results.

A second important aspect is the different methods to run the Monte Carlo processing in deterministic analysis, which are named "horizontal" and "vertical" processing. In horizontal processing, the parameter and log value offsets are randomly defined, and the full set of calculations is performed for a single depth increment. This process runs multiple times, with all the results stored, before moving on to the next sample depth. Then, for the next sample depth, a new set of parameters and log offsets are randomly defined. This will be continued for analyzing the complete reservoir interval.

$\frown$	Depth	Iteration 1	Iteration 2	Iteration 3	Iteration 4	Iteration 5
Parameter Selector	5000	Vish Ø Sw byte:	Visit \$7.5w bytec	Vsh Ø Sw byhe	Vsh Ø Sw byhc	Vshi Ø Sw byhc
Ranssom Perameter Selector	5000.5	Vsh Ø Sw byhc	Vsh Ø Sw bvhc	Vsh @ Sw bvhc	Vsh Ø Sw byhc	Vsh Ø Sw byhc
Parameter Selector	5001	Vsh Ø Sw Irvhc	Vish Ø Sw byhc			

Fig. 3—Image showing the horizontal processing method.

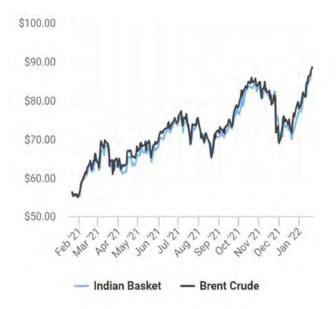
In vertical processing, the parameters and log value offsets are randomly defined and then used for the entire processing interval. Once the calculations are run for the entire interval, results are stored. Then, the parameter and log value offsets are redefined before running the subsequent iteration for the entire interval.

$\wedge$	Depth	Iteration 1	Iteration 2	Iteration 3	Relation 4	Iteration 5
Paramieter Selector	5000	Vsh Ø Sw byhc	Vsh Ø Sw kwhic	Vish Ø Sve byte		
Random Parameter Selector	5000.5	Vsh Ø Sw byhc	Vsb Ø Sw byte	Vsh Ø Sw buhc		
Random Parameter Selector	5001	Vsh Ø Sw byhc	Vsh Ø Sw byte	Vsh Ø Sw butic		

Fig. 4-Image showing the vertical processing method.

Horizontal processing allows effective modeling of random uncertainty, but it does not incorporate the systematic uncertainties and is unable to generate percentile-based results such as P90, P50, and P10. On the other hand, vertical processing allows effective modeling of both systematic and random uncertainty.

**Conclusion:** Uncertainty analysis plays a crucial role in reserve estimation for visualizing a project's economic scenarios. Therefore, it is important to understand the uncertainty associated with petrophysical interpretation, which forms the basis for reserve estimation. Based on the above-discussed workflow/approaches for understanding and addressing the uncertainties, a single workflow with vertical processing in Monte Carlo is found to be better, as it provides a better estimation of uncertainty on petrophysical results while using the deterministic method.





#### Deployment of Advanced Ultrasonic Sound Speed Sensor for Accurate and Faster Real-Time Downhole Fluid Identification in Complex Multiphase flow

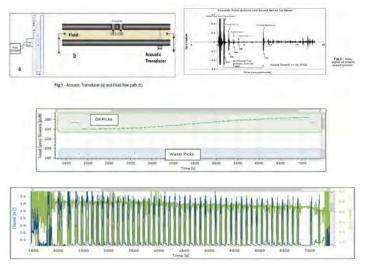
Authors: Varghese Christeen, Dash Nihar, Saurabh Kumar – Baker Hughes India

In a recently drilled crucial exploratory well in Mumbai offshore, a fluid analyzer containing an ultrasonic sound speed sensor was deployed for formation testing and sampling in an SOBM environment. The sensor measures the speed of the sound through the fluid using a piezoelectric transducer mounted on the outer wall of the flowline. The sound signal travels through the fluid flowing in the flowline and travels back to the receiver. Based on the round-trip distance and traveltime, the fluid's sound speed is calculated. Changes in sound speed (or slowness) with time during pumpout can be used to identify the fluids and monitor the cleanup process.

The well-presented various challenges include high overbalance (~3,100 psi), low mobility, and multiphase flow conditions. In addition to that, the stationary time needed to be minimized due to wireline deployment under high overbalance to manage the risk of differential sticking, while sufficient pumpout volume is needed for accurate fluid identification and acquisition of clean samples. To address these challenges, RCX-S-eXcel with a large area packer (33 in.<sup>2</sup>) along with absorbance spectroscopy and ultrasonic sound speed sensor were deployed in this well.

The varying property of sound slowness in SOBM, formation oil, and water allowed us to observe their cleanup trend simultaneously, thus helping in quick fluid identification

(average pumpout time being 90 minutes). Pumpout was carried out at seven depths (FID), and five samples were collected, out of which two were under multiphase flow conditions (formation oil + formation water + SOBM). All desired objectives of the operation were successfully met while avoiding stuck tool scenarios.



### JAPAN CHAPTER Japan Formation Evaluation Society (JFES)

#### **General News**

JFES SNSs have started. LinkedIn: <u>https://www.linkedin.com/company/jfes-japan-formation-evaluation-society/</u> Twitter: <u>https://twitter.com/spwla\_jfes</u>

#### **Replacement of Board Members**

Replacement of VP IT	Takuya Ishibashi (AIST)
	from Masaaki Okita (JX)
New board member	Kentaro Hasebe (INPEX) Director
Leave board member	Masaaki Okita (JX) VP IT
See current board mem	bers at https://www.spwla-jfes.org/
ja/about-us/	

#### **Recent Events**

**9 March 2022**—117th JFES Chapter Meeting <u>https://www.spwla-jfes.org/117th-jfes-chapter-meeting/</u>. We had 53 audience members join the webinars, and a hot discussion was held with the speakers.

#### **Upcoming Events**

**26 May 2022**—JFES Distinguished Lecture 2022 on Thursday, 15:30 to 17:30 (JST). Please register here: <u>https://forms.</u> <u>office.com/r/paqEyW7APV</u>. Due date: May 23, 2022.

#### Introductory Lecture: 15:30-16:30 (JST)

Title: Essential Concepts on Carbonate Formation Evaluation Speaker: Tetsuya Yamamoto (JFES First-VP, JAPEX) Language: Japanese

#### Distinguished Lecture: 16:30-17:30 (JST)

Title: Machine Learning to Predict Large Pores and Permeability in Carbonate Reservoirs Using Standard Logs Speaker: Ibrahim Milad (BP) Language: English

**13–16 September 2022**—The 27th Formation Evaluation Symposium of Japan will be held as a "hybrid" event over 4 days. The onsite venue will be in Japan Oil, Gas and Metals National Corporation – Technology & Research Center (JOGMEC-TRC), Chiba. Eight special speakers are invited to this symposium. Click here for details about invited speakers and talk themes.

https://www.spwla-jfes.org/ja/the-27th-jfes-annualsymposium/



The 27th Formation Evaluation Symposium of Japan.

#### London Petrophysical Society (LPS)

#### **General News**

With the reduction in COVID restrictions, the London Petrophysical Society is continuing to host a mix of in-person and online events during 2022. The current list of events is listed on our website.

#### **Recent Events**

- 24 February 2022—The LPS held an online "New Technology Day." With a full-day program, it was an opportunity for service companies to introduce new services or case studies to the LPS membership. It was positive to see so many new technologies presented, even after the last few years of rapidly changing oil prices.
- **16 March 2022**—It was great to see so many attend the inperson all-day seminar on "Petrophysics in Well Planning and Execution." Many thanks to all the presenters and to those who turned up to the Geological Society to attend the first physical event held this year. Given the numbers who participated, we will continue to host more in-person events during 2022, along with some online events as well.
- **26 April 2022**—This evening lecture was also an in-person event at the Geological Society. William Dawson (bp) talked about completions petrophysics with detailed case studies.

#### Upcoming Events

**17 May 2022**—The London Petrophysical Society will be holding an evening talk on "A Brief History of Low-Resistivity Pay and How It Was Overcome."

#### **OKLAHOMA UNIVERSITY STUDENT CHAPTER**

#### **Recent Events**

- 7 April 2022—We were honored to have Marie Lefranc present on the topic "Deep-Learning-Based Automated Sedimentary Geometry Characterization From Borehole Images." We had the opportunity to learn how bedform geometry's prediction can be automated using a convolutional neural network. We had good attendance.
- **9 April 2022**—SPWLA volunteered with The Big Event to plant a garden at a children's home in Norman. It was a fun time for us all.



(From left to right) Rishabh Pandey (Treasurer), Felipe Cruz (member), Blessed Amoah (President), Yuan Fang (Publicity Chair), Carlos Arengas (Vice President), and Laura Osario (Secretary). Location: Norman

- 16 April 2022—We were honored to have Divyanshu Vyas, data scientist (Accenture AI and founder of Petroleum From Scratch) as the resource person for a workshop entitled "Numpy, Pandas, Matplotlib, and Data Science Workflows With Multiple Projects From the Oil and Gas Domain." This workshop sought to give participants handy data analytics techniques and skills applicable to the petroleum industry. We had good attendance
- **23** April 2022—We were honored to have Yohanes Nuwara, an expert data scientist, as a resource person for the topic "Computer Vision for Digital Rock Images." In this workshop, we learned the basics of computer vision on rock images using Python.

#### PERMIAN BASIN CHAPTER

#### **General News**

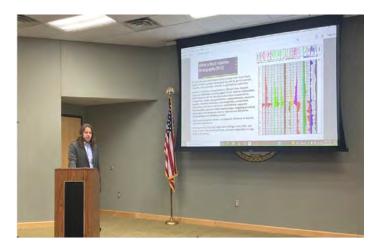
We hope everyone is staying safe and healthy. SPWLA Permian Chapter remains active through online and in-person meetings. Our members get together at least once per month to discuss our marketing strategy and organize future events. We keep posting informational content on our social media. As some members have finished their activities in the chapter, we believe this is an excellent opportunity to invite some new volunteers to the chapter. Please get in touch with President Veronica Montoya.

#### 2021–2022 Committee Members

Veronica Montoya
Violeta Lujan
Islam Mitwally
Ross Klabon

#### **Recent Events**

22 February 2022—The SPWLA Permian Basin hosted Chris Smith for the first in-person presentation, "Identifying Pay Zones and Understanding Petroleum Systems in Petrophysically Difficult to Interpret Plays by Analyzing Volatiles from Cuttings and Core with Rock Volatiles Stratigraphy (RVS)." The talk was engaging and provoked many questions.



22 March 2022—A seminar was held on "Petrophysical and Geochemical Evaluation for Predicting Production Potential in Unconventional Reservoirs by Integrating Multiple Non-Intrusive Techniques" by Isaac Easow (Geolog Americas Inc.).



#### **Events**

We want to thank the speakers for sharing their knowledge with the SPWLA Permian Basin members.

#### **Monthly Meetings**

Date	Speaker	Title
Oct-26- 2021	Stephanie Perry	Investigating and Innovating Delaware Basin Bone Spring and Wolfcamp Observations Through Core Based Quantification; Case Study in the Integrated Workflow Including Closed Retort Comparisons
January- 25-2022	Alan Kornachi	Identifying Anomalous Production From Wells Landed in Upper Wolfcamp Pay Zones Using Geochemistry Source and Maturity Parameters
Feb-22- 2022	Chris Smith	Identifying Pay Zones and Understanding Petroleum Systems in Petrophysically Difficult to Interpret Plays by Analyzing Volatiles From Cuttings and Core With Rock Volatiles Stratigraphy (RVS)
March 22- 2022	Isaac Easow	Petrophysical and Geochemical Evaluation for Predicting Production Potential in Unconventional Reservoirs by Integrating Multiple Non-Intrusive Techniques.
April 26, 2022	Yogashri Pradhan	Drawdown Management Strategies — Midland Basin Case Studies
May 24, 2022	Mohammad Azeem Chohan	Integrated Petrophysical Evaluation of Unconventional Formations, in the Delaware Basin, With a Customized NMR Acquisition

#### **TULSA CHAPTER**

#### **General News**

The chapter is exploring options for holding in-person events for 2022–23, including combining with other professional groups in Tulsa to hold joint meetings. The current chapter officers have offered to continue for the 2022–23 season while the chapter sorts out its future.

- President: James Howard
- Secretary/Treasurer: Patrick Ryan

#### **Recent Events**

The chapter hosted two in-person meetings this spring.

- 17 February 2022—Pat Ryan led a tour of the Oklahoma Well Log Library in downtown Tulsa. The OWLL is a nonprofit organization that is the repository of all wireline logs and other geological data for Oklahoma and surrounding states. The tour was followed by a presentation based on several case studies where paper log data was digitized and then merged with rock, test, and production data to produce some impressive petrophysical and geological insights into several local plays.
- **15 March 2022**—James Howard talked on "An AI-Based Approach to Enhanced Fracture Resolution in Image Logs," which gave a brief introduction to various artificial intelligence methods used for super resolution in computer vision studies. The deep-learning neural-network approach was applied to borehole image logs with a discussion on how to validate this approach.

Both presentations were sparsely attended, yet still generated questions and discussion.

#### **Upcoming Events**

The chapter will hold an information meeting for members in May to discuss options for its future as a viable professional organization.

#### **UIS Student Chapter – COLOMBIA**



Board of Directors	
President	Luis Alberto Chinomes G.,
	presidencia@spwlauis.com
Vice president	Carlos José Medina L.,
	vicepresidencia.spwlauis@gmail.com
Fiscal	Karen Ivonne Triana P.,
	fiscal.spwlauis@gmail.com
Secretary	Maria Andrea Herrera P.,
	secretaria.spwlauis@gmail.com
Treasurer	Tanya Mercedes Garavito L.,
	contador.spwlauis@gmail.com

#### **Recent Events**

**Student Paper Contest 2022**—The SPWLA UIS team organized the Student Paper Contest 2022 event, where different research in the area of petrophysics and formation evaluation was shared, and the finalists in the undergraduate category were ranked as follows:

#### WINNERS STUDENT PAPER CONTEST 2022

**1ST PLACE** 



Karen Triana and Simón Calderón

#### **2ND PLACE**



Ángela Tarazona

#### **3RD PLACE**



Sarai Badillo

**PORTUÑOL:** Two student chapters, SPWLA UIS (Colombia) and SPWLA UFRJ (Brazil), carried out a cultural and language exchange and are preparing for new projects in collaboration.



**TEAM INTEGRATION**—We had a time of integration with the team at the Catay farm, where we shared experiences, participated in dynamic and recreational activities, destressed, and enjoyed the beautiful natural scenery.







**TECHNICAL COURSE IN THE VILLAVICENCIO-META OIL FIELD, COLOMBIA**—The SPWLA UIS team participated in a course on the operation tools for the drilling of oil wells in a rig located in the city of Villavicencio-Meta in Colombia, with a duration of 4 days (theory and practice).





#### **Upcoming Events**

The SPWLA UIS Student Chapter, in conjunction with the new professional chapter SPWLA Colombia, will hold a panel discussion on the energy transition with senior executives from different companies.

The team will organize a technical conference on the topic of integrated petrophysical characterization of a tight gas siliciclastic reservoir in the Neuquén Basin in western Argentina by a Distinguished Speaker.



SPWLA UIS/ Social Networks

LinkedIn: <u>https://www.linkedin.com/company/spwla-uis-</u> student-chapter/

Instagram:<u>https://www.instagram.com/spwlauis/?hl=es-la</u> YouTube:<u>https://www.youtube.com/c/SPWLAUIS</u> Facebook:<u>https://es-la.facebook.com/SPWLAUIS/</u>

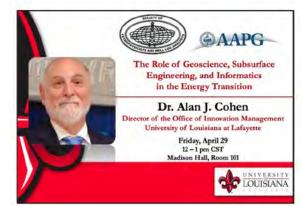
#### UNIVERSITY OF LOUISIANA AT LAFAYETTE STUDENT CHAPTER

#### **Recent Events**

**29 March 2022**—The UL Lafayette Student Chapter held its internal paper contest. Judges from both Petroleum Engineering and Geosciences Departments evaluated the technical content and potential value to the oil and gas industry of six presentations. Students showcased their presentation skills and impressed the audience with the vast amount of research conducted. The contest allowed undergraduate and graduate students to prepare abstracts, present their work in front of a jury, and receive constructive feedback. The activity was well received by the SPWLA community at our university, and students appreciated the opportunity to discuss their research before the international competition in Stavanger, Norway. Cash prizes were offered to the winners listed below.

	Win	ners	
Degree Level	Student Name	Presentation Title	Rank
PhD	Maksym Chuprin	Using Optical Swell Meter to Evaluate the Impact of Water-Based Fluids on Swelling of Heterogeneous Shales	14
	Philip B. Wortman	Effect of Sample Preparation on Sessile Drop Contact Angle Measuréments in Green River Shale	<b>2</b> <sup>nd</sup>
MSc Undergraduate	Aderibigbe L. Adeyerno	Reduction of Drilling Drag in Tuscaloosa Marine Shale (TMS) Formation Using Smooth Catenary Well Trajectories	2 <sup>nd</sup>
	Pascal I. Esenenjor	Machine Learning Approach for Sonic Log Prediction for Subsurface Studies in 'Dupa' Field, Niger Delta	In
	Mohammed A. Hasan	Prediction of Density in Bad Hole Intervals Using Machine Learning In the Upper Bakken Shale	2**
	Tiffany M. Lastinger	Analyzing Anti-Collision Data for Smart Well Planning	<b>1</b> <sup>st</sup>

**29** April 2022—Our last meeting of the spring semester featured Dr. Alan J. Cohen discussing the energy transition with both SPWLA and AAPG chapter members. Dr. Cohen is the director of the Office of Innovation Management at the University of Louisiana at Lafayette and has over 40 years of experience in both industry and academic roles.



Dr. Alan J Cohen, April 29.

#### UNIVERSITAS PERTAMINA STUDENT CHAPTER

#### **General News**

SPWLA Universitas Pertamina Student Chapter was founded in 2019. This is our third cabinet in SPWLA UP SC, namely the Enhancement Cabinet. We just renewed our cabinet a few months ago. Our chapter is the most active amongst SPWLA student chapters in Indonesia. We have 40 officers with a total of eight departments, and four divisions included. Our officers are mostly majoring in petroleum, geology, and geophysics engineering. Our student chapter is assisted by the Petroleum Engineering Students Association.

Our cabinet has many work programs for internal and external organizations to develop the officers and Universitas Pertamina's students, especially the Faculty of Exploration and Production Technology's students, such as hard and soft skills to prepare them for work and career life. We have monthly meetings every last week at the end of the month to evaluate officers' performances and work programs. In March, we held the monthly meeting on March 29, 2022. So far, from January to April, we have held a few events just for internal officers of the SPWLA Universitas Pertamina Student Chapter. Also, there is another upcoming event that will be held for the public that everyone can participate in, such as Lifting.



Students presenting during the UL Lafayette SPWLA Internal Paper Contest. (Left column) Top – Mohammed A Hasan, undergraduate student; Middle – Maksym Chuprin, PhD student; Bottom – Aderibigbe L Adeyemo, MSc student. (Right column) Top – Philip B Wortman, PhD student; Middle – Pascal I Esenenjor, MSc student; Bottom – Tiffany M Lastinger, undergraduate student.



Monthly Meeting on March 29, 2022.

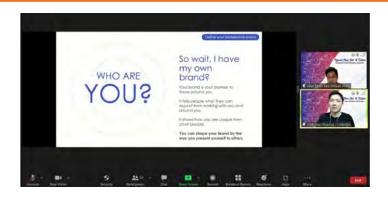
#### **Recent Events**

**7–8 February 2022**—NGODE VOL.2 is an internal event by the Human Resources Department that continues a previous event. This event has the main goal to strengthen people skills in the whole cabinet. This event conducted a small group meeting with seven people only, with 2 MC in the room so the session could feel more private and intimate. This event was held via a Zoom Cloud Meeting.



Upgrade Your Skill Vol. 3 X Talktion: Optimizing Your Personal Branding.

9 April 2022—Upgrade Your Skill is a series of webinar collaborations between the Human Resources Department and the Professionalism Department. In this third series, this webinar gave the participants some insight and tips on optimizing their own personal branding. This webinar featured Mr. Eddyman Kharma as our amazing speaker. Unlike the previous series, this event was only attended by the internal cabinet to maintain the focus group discussion of the courses and was held by Zoom Cloud Meetings.



#### Upcoming Events

- May 2022—Lifting is a webinar about technical matters during the exploration and exploitation of oil and gas. We will invite experts as our speakers. The participants will get new insights, sharing their experiences and knowledge. Lifting will be held via the SPWLA UP SC Zoom Meeting Room. Date TBD.
- **Through June 2022**—The President Election is an event for recruiting a new president for the next period of SPWLA UP SC. The candidate will be put to the test and voted on by members of SPWLA UP SC only.



Ablordeppey, Worlanyo, Texas A&M University Kingsville, Kingsville, TX, United States Adversario, Vincent, Batangas State University, Tayabas City, 4-A, Philippines Agrawal, Dhananjay, Bangalore, Karnataka, India Agustin, Joshua, Batangas State University, Sta. Rosa, 4-A, Philippines Al-Gobi, Ghaleb, University of Houston, Houston, TX, United States An, Hetian, CGG, China Angeles, Rafael Dave, Batangas State University, Cabuyao, 4-A, Philippines Aniel, Jessa, Batangas State University, Naujan, 4-B, Philippines Anuran, Paulo Roman, Batangas State University, Batangas City, 4-A, Philippines Arevalo, Paul John, Batangas State University, Naujan, 4-B, Philippines Arnante, Jose Raymundo, Batangas State University, Pili, **Bicol**, Philippines Atienza, Kristel Apple, Batangas State University, San Luis, Calabarzon, Philippines Aursand, Peder, Aker BP, Oslo, Norway China Badillo Reina, Dailyn Sarai, UIS, Bucaramanga, Santander, Colombia Baliwag, Patricia Mae, Batangas State University, Batangas City, Calabarzon, Philippines Ballesteros, John Luven, Batangas State University, Coron, Mimaropa, Philippines Bantugon, Lhealyn, Batangas State University, Mabini, Calabarzon, Philippines Batac, Khien Rald, Batangas State University, Lian, Calabarzon, Philippines Bathan, John Rence, Batangas State University, Ibaan, Calabarzon, Philippines Ben Mansour, Wesam, Wintershall Dea Norge AS, Stavanger, Rogaland, Norway Benamer, Krisha, Batangas State University, Rosario, Calabarzon, Philippines Bernardino, Leidelyn, Batangas State University, Taysan, Calabarzon, Philippines China Bi, Feiyu, China University of Petroleum, Beijing, China Bigelow, Michael, Dominion Energy Wexpro, Salt Lake City, UT. United States Blake, Jenny, Coterra Energy, Midland, TX, United States Bruyere, Ashton, Beryl Oil and Gas, Midland, TX, United States Cabahog, Elexis Jade, Batangas State University, Lian, Calabarzon, Philippines Calahati, Jack Michael, Batangas State University, San Pascual, Calabarzon, Philippines

Carait, Ruel, Batangas State University, San Antonio, Calabarzon, Philippines Castillo, Lexine Mae, Batangas State University, Lipa City, Calabarzon, Philippines Catilo, Criza Marie, Batangas State University, Naujan, Mimaropa, Philippines Catipay, Lorely, Batangas State University, Batangas City, Calabarzon, Philippines Cesario, Edward, Batangas State University, Bauan, Philippines Chacin, Luis, Halliburton, Hafrsfjord, Norway, Norway Chavez, Trisha Anne, Batangas State University, Sto. Tomas City, Calabarzon, Philippines Cheng, Shizheng, Chengdu University of Technology, Chengdu, Sichuan, China Cheng, Lijuan, Northeast Petroleum University, Daging, Longfeng, China Chi, Yaao, Northeast Petroleum University, Daging, Heilongjiang, China Chuang, Hei, Yangtze University, Jingzhou, China Collecott, David, Qteq, Bridgeman Downs, QLD, Australia Cui, Likai, Northeast Petroleum University, Daqing, Longfeng, Dalisay, Liana Paola, Batangas State University, Naujan, Mimaropa, Philippines De Castro, John Immanuel, Batangas State University, Calamba City, Calabarzon, Philippines De Leon, Josh Miguel, Batangas State University, Parañague City, NCR, Philippines De Ocampo, Hazel Ann, Batangas State University, Santo Tomas City, Batangas, IV-A, Philippines De Robles, Jhoy Ann, Batangas State University, San Luis, Batangas, IV-A, Philippines De Torres, Juliet, Batangas State University, Batangas City, **IV-A**, Philippines De Vera, Jonizey Hanna, Batangas State University, Sta. Rosa, Laguna, IV-A, Philippines Dela Cruz, Deby, Batangas State University, Cavite, IV-A, Philippines Deng, Feng, China National Logging Corporation, Beijing, Deng, Rui, Yangtze University, Wuhan, Caidian DC, China Denosta, Diana Rose, Batangas State University, Batangas City, IV-A, Philippines Derecho, Venlemuel, Batangas State University, San Jose, Batangas, IV-A, Philippines Diasanta, Mary Jane, Batangas State University, Sta. Rosa City, IV-A, Philippines Diata, Reizel Anne, Batangas State University, Batangas City, IV-A, Philippines

Dimaandal, Matthew, Batangas State University, Santa Teresita, Batangas, IV-A, Philippines Diones, Kurt Joshua Lior, Batangas State University, Tuy, IV-A, **Philippines** Dong, Xu, Northeast Petroleum University, Daging, China Dumael, Julius, Batangas State University, Batangas, IV-A, Philippines Duriez, Alban, Halliburton, Houston, TX, Escobar, Ana, Schlumberger, Ivry Sur Seine, Ile de France, France Escobar, Alexandra, Batangas State University, San Juan, Batangas, IV-A, Philippines Escorido, Trisha Mae, Batangas State University, Taal, Batangas, Region IV-A, Philippines Esenenjor, Pascal, University of Louisiana at Lafayette, Lafavette, LA, United States Espiritu, Rizzei Joy, Batangas State University, Oriental Mindoro, Region IV-A, Philippines Espiritu, John Alvin, Batangas State University, Rosario, Batangas, Region IV-A, Philippines Estrada, Enrique, Halliburton, Rio De Janeiro, Brazil, Brazil Evaristo, Dona Lheila, Batangas State University, Calamba City, Laguna, Region IV-A, Philippines Ezenkwu, Chinedu, University of Aberdeen, Aberdeen, United Kingdom Fen, Dou, CGG, China Feng, Xuliang, Xi'an Shiyou University, Xi'an, China Feng, Cheng, China University of Petroleum-Beijing, Karamay, Karamay, China Ferrer, Sharmaine, Batangas State University, Laguna, Region IV-A, Philippines Festin, Rome Erwin, Batangas State University, Pinamalayan, **Oriental Mindoro, Philippines** Fincalero, Ruffalyn, Batangas State University, Binangonan, Rizal, Region IV-A, Philippines Finken, Daniel, Equinor, Nesoddtangen, Viken, Norway Franco, John Patrick, Batangas State University, Alitagtag, Batangas, Region IV-A, Philippines Fu, Lei, Aramco Americas, Houston, TX, United States Fu, Jian, Northeast Petroleum University, Daging, Heilongjiang, China Furghieri Bylaardt Caldas, Priscila, Halliburton, Houston, TX, **United States** Gabay, Karen Faye, Batangas State University, San Pascual Batangas, Region IV-A, Philippines Garcia, Kim Jeannell, Batangas State University, San Juan, Batangas, Region IV-A, Philippines Garcia, Julie Ann, Batangas State University, San Jose, Batangas, Region IV-A, Philippines Ge, Xinmin, China University of Petroleum (East China), Qingdao, Shandong, China

Ge, Xinmin, China University of Petroleum, Qingdao, Huangdao, China Geba, Andrea Louise, Batangas State University, San Juan, Batangas, Region IV-A, Philippines Gong, Fanhao, China Geological Survey, Shenyang Center, Shenyang, Huang Gu, China Gonzalbo, Kiesa, Batangas State University, Lobo, Batangas, **Region IV-A**, Philippines Gracianne, Cécile, BRGM, Orleans, Centre, France Greñas, Prince Joseph, Batangas State University, San Pablo City, IV-A, Philippines Gu, Xihao, China University of Petroleum (East China), QingDao, China Guan, Maevel, Batangas State University, Lobo, IV-A, Philippines Guevarra, Keith, Batangas State University, Tanauan City, IV-A, Philippines Guiang, Angelika Jane, Batangas State University, Balete, IV-A, Philippines Guillot, Matt, Scientific Drilling, Spring, TX, United States Guo, Yuhang, Jilin University, Changchun, China Guo, Yuhao, Chengdu University of Technology, Chengdu, Sichuan, China Guo, Yifan, Chengdu University of Technology, Chengdu, Sichuan, China Guo, Qiang, Hohai University, Nanjing, China Guo, Haifeng, China National Logging Corporation, Xi'an, China Guo, Jiangfeng, China University of Petroleum Beijing, Beijing, China Gutierrez, Marcus Gabriel, Batangas State University, Quezon City, NCR, Philippines Hadji Jalil, Amilah, Batangas State University, Marawi City, **Region 10, Philippines** Hansen, Martine, AkerBP, Oslo, Norway Hasan, Mohammed, University of Louisiana at Lafayette, Lafavette, LA, United States He, Jiahuan, CNPC, Cheng Du, Jing Niu, China He, Jun, University of North Dakota, Grand Forks, ND, United States Hernandez, Queen Learni, Batangas State University, Alitagtag, IV-A, Philippines Hernandez, Ma. Lourdes, Batangas State University, Pinamalayan, IV-B, Philippines Huang, Jun, Xi'an Shiyou University, Xi'an, China Huang, Chu, Southwest Petroleum University, Chengdu, Xindu, China Ilagan, Mary Grace, Batangas State University, Calapan, IV-B, Philippines Ilagan, Angelica, Batangas State University, Batangas, IV-A, Philippines

Jaraba, Lorife, Batangas State University, Batangas, IV-A, **Philippines** Jiang, Zhihao, Xi'an Shiyou University, Xi'an, China JIANG, YANJIAO, Northeast Petroleum University, Daging, Heilongjiang, China Jiawei, Zhang, China University of Petroleum (Beijing), Beijing, Changping, China Jin, Guowen, China University of Petroleum-Beijing, Beijing, Changping, China Juan, Angelyn, Batangas State University, Batangas, IV-A, Philippines Jun, Zhang, Sinopec Science and Technology Center, Beijing, China China Karmi, Saurav, Oil India Limited, Duliajan, Assam, India Khosravi, Mansour, Illinois State Geological Survey, Champaign, IL, United States Knapp, Levi, Alberta Energy Regulator, Edmonton, AB, Canada Landicho, Frenz Reyessa, Batangas State University, San Nicolas, IV-A, Philippines Larios, Carla Joie, Batangas State University, Bay, IV-A, Philippines Laroza, Princess Lyka, Batangas State University, San Jose, IV-A, Philippines Leone, Andrea, Eni Spa, San Donato Milanese, Milano, Italy Li, Xinxin, Xi'an Shiyou University, Xi'an, China Li, Yan, Jilin University, Changchun, Chaoyang, China Li, Hongxia, Northeast Petroleum University, Daging, China Liao, Qiming, Southwest Petroleum University, Chengdu, Xindu, China Liao, HaiBo, Southwest Petroleum University, Chengdu, Xindu District, China Liu, Yuchao, Chengdu University of Technology, Chengdu, Sichuan, China Liu, Huabing, Beijing Limecho Technology Co., Beijing, Beijing, China Liu, Yang, Tianjin Uninversity, Tianjin, China Liu, Yubo, China University of Petroleum (Beijing), Beijing, Changping, China Liu, Yu, Chengdu University of Technology, Chengdu, China Liu, HogngiLiu, Southwest Petroleum University, Chengdu, Sichuan, China Liu, Zhidi, Xi'an Shiyou University, Xi'an, China Liu, Juntao, Lanzhou University, Lanzhou, Gansu, China Liu, Shuai, Southwest Petroleum University, Chengdu, Xindu, China Liu, Yuchen, Northeast Petroleum University, Daging, Gaoxin, China Liwanag, Ralph DenzeL, Batangas State University, Lipa, IV-A, **United Arab Emirates** Philippines

Lixiang, Feng, Beijing ZKHC Energy Co., LTD, Beijing, China Lu, Cai, University of Electronic Science and Technology of China, Chengdu, Pidu, China Lubi, Mary Joyce Cludette, Batangas State University, Balayan, IV-A, Philippines Luo, Yang, Chengdu University of Technology, Chengdu, Sichuan, China Luo, Cong, Hohai University, Nanjing, China Luo, Gang, China University of Petroleum, Beijing, ChangPing, China Luo, Sihui, China University of Petroleum, Beijing, Changping, Ma, Jun, Chengdu University of Technology, Chengdu, Sichuan, China Macalalad, Katherine, Batangas State University, Balayan, IV-A, Philippines Malabag, Arabella, Batangas State University, Cuenca, IV-A, Philippines Maldonado Cruz, Eduardo, The University of Texas at Austin, Austin, TX, United States Malone, Kason, Stephen F. Austin State University, Beckville, TX, United States Manalo, Allen, Batangas State University, Batangas, IV-A, Philippines Marasigan, Rosalyn, Batangas State University, San Pascual, **IV-A**, Philippines Martin, Jochen, AkerBP, Stavanger, Rogaland, Norway Martins, Marina, Observatório Nacional, São Leopoldo, Brazil, Brazil Mohammad, Matin, Batangas State University, Batangas City, Philippines Moriyasu, Hannah Aumie, Batangas State University, Tayabas, IV-A, Philippines Mortel, Patrick Clarence, Batangas State University, Balayan, **IV-A**, Philippines Moussa, Bayar, Exterran, Erbil, Iraq Nail, Robert, Texas Commission on Environmental Quality, Houston, TX, United States Palomar, Mary Rose, Batangas State University, Naujan, IV-B, Philippines Pan, Baozhi, Jilin University, Changchun, Chaoyang, China Pate, Lauren, ConocoPhillips, Midland, TX, United States Pavel, Andreea, University of Bucharest, Bacau, Romania Perez, Michael, Batangas State University, Batangas, IV-A, Philippines Perez, Kenji Clyde, Batangas State University, Cuenca, IV-A, Philippines Peterson, Jess, Birchcliff Energy, Cochrane, AB, Canada Petrov, Alexander, ADNOC AIQ, Abu Dhabi, Abu Dhabi,

Plata, Riodel, Batangas State University, Batangas, IV-A, Shao, RongBo, China University of Petroleum, Beijing, China **Philippines** Pollock, Jacob, Honolulu, HI, United States Posa Bohome, Joaquin, Schlumberger, Edmond, OK, United States Primiero, Paolo, Halliburton, Stavanger, Norway Punzalan, Ricardo Roguen, Batangas State University, Bauan, IV-A, Philippines Putra Jaya, Mark, MUL, Bandung, Indonesia, Indonesia Qi Yong, Gou, Chengdu, China Quediman, Barbara, Halliburton, Rio De Janeiro, Brazil, Brazil Quiatchon, Andrei Symon, Batangas State University, Calamba, IV-A, Philippines Quinto, Jasper Hanes, Batangas State University, Lipa, IV-A, Philippines Ramos, John Rafael, Batangas State University, Batangas, IV-A, Philippines Ramos, Deanne Chloe, Batangas State University, San Pascual, IV-A, Philippines Ran, Liquan, Southwest Petroleum University, Chengdu, Sichuan, China Recto, Jacques Alesi, Batangas State University, Trece Martires, IV-A, Philippines Redondo, Jhesska, Batangas State University, Tanauan, IV-A, Philippines Reyes, Vincent Martin, Batangas State University, Lucena, IV-A, Philippines Reyes, Theresa Marie, Batangas State University, Ibaan, IV-A, Philippines Rillorta, Kayla, Batangas State University, Gloria, IV-B, Philippines Rizo, Hannah May, Batangas State University, Rosario, IV-A, Philippines Ronulo, Jasper, Batangas State University, Nasugbu, IV-A, **Philippines** Rosales, Ramil, Batangas State University, Batangas, IV-A, Philippines Roters, Bastian, NiMBUC Geoscience OG, Vienna, Austria Rubenecia, Jacob, Batangas State University, Northern Samar, VIII, Philippines Ruigi, Fan, China University of Petroleum (Beijing), Beijing, Changping, China Sajili, Sarah, Batangas State University, Lubang, IV-B, Philippines Salapare, Jon Rennier, Batangas State University, IV-A, Philippines Saleh, Mohd, Exxonmobil, Hannover, Germany Sande, John Leomar, Batangas State University, Tabaco, V, **Philippines** Shan, Changan, Xi'an Shiyou University, Xi'an, China Shao, Sigi, Southwest Petroleum University, Chengdu, China

Shuiliang, Luo, Yangtze University, Wuhan, Caidian, China Sima, Yiru, Chengdu University of Technology, Chengdu, Sichuan, China Sontillano, Rommel Jame, Batangas State University, **Oriental Mindoro, IV-B, Philippines** Stutz, James, Endeavor Energy Resources, Midland, TX, **United States** Sun, Huafeng, China Geological Survey, Beijing, China Tan, Jie, CNPC, Cheng Du, Jing Niu, China Tan, Chengqian, Xi'an Shiyou University, Xi'an, China Tang, Zhijuan, CNPC, Cheng Du, Jing Niu, China Tang, Yan Bing, Southwest Petroleum University, Chengdu, Xindu, China Tao, Aihua, China Oilfield Services Limited, Sanhe, Langfang, Hebei, China Thomas-Ideh, Osivwi, ExxonMobil, Spring, TX, United States Tian, Jie, Chengdu University of Technology, Chengdu, Sichuan, China Tian, Jia, Xi'an Shiyou University, Xi'an, China Tian, Shansi, Northeast Petroleum University, Daging City, Saertu, China Torres, Jericho, Batangas State University, Malvar, IV-A, Philippines Tovar, John, University of Houston, Katy, TX, United States Turner, Adam, GeoMark Research, Houston, TX, United States Umali, Kassandra Yllaine, Batangas State University, Batangas, IV-A, Philippines Vasquez, Jenievieve, Batangas State University, Batangas, IV-A, Philippines Villanueva, Zildjan, Batangas State University, Batangas, IV-A, Philippines Villanueva, Grazel Kyle, Batangas State University, Naujan, IV- B, Philippines Vista, Prinze Reibournne, Batangas State University, San Pablo, IV-A, Philippines Von Schnurbein, Ludwig, ExxonMobil Production Deutschland GmbH, Hannover, Germany Wan, Zhonghua, Chong Qing University of Science and Technology, Chongqing, Shapingba, China Wang, Shusheng, China National Petroleum Logging Company, Xi'an, High tech Zone, China Wang, Xinru, Jilin University, Changchun, China Wang, Chengyang, Chengdu University of Technology, Chengdu, Sichuan, China Wang, Boyang, Northeast Petroleum University, Daging, China Wang, Zhengduo, Well Rock Technology Co., Ltd, Beijing, China Wang, Guoxue, CGG, Beijing, China

Wang, Chao, Shenzhen, Guangdong Provi, China Wang, Yan, Shell, New Orleans, LA, United States Xiang, Xuebing, Chengdu University of Technology, Chengdu, Sichuan, China Xie, Ranhong, China University of Petroleum Beijing, Beijing, China Xie, Weifeng, Southwest Petroleum University, Chengdu, China Xiong, Yixue, Chong Qing University of Science and Technology, Chongqing, Shapingba, China Xu, Hongrui, Southwest Jiaotong University, Chengdu, China Yan, Shuanglan, China University of Petroleum (Beijing), Beijing, Changping, China Yang, Yiging, Southwest Petroleum University, Chengdu, xindu, China Yang, Chaohong, Chengdu University of Technology, Chengdu, Sichuan, China Yang, Yonghang, Chengdu University of Technology, Chengdu, Sichuan, China Yang, Qingqing, Chengdu University of Technology, Chengdu, Sichuan, China Yang, En, Southwest Petroleum University, Chengdu, China Yang, Tao, Equinor, Stavanger, Norway, Norway Yao, LinFang, Chengdu University of Technology, Chengdu, Sichuan, China Yao, Donghua, Daqing, China Yu, Zhuorong, Chengdu University of Technology, Chengdu, Sichuan, China Yu, Yanxiang, Shell US, Houston, TX, United States Yue, Wenzheng, China University of Petroleum-Beijing, Beijing, China Zaballas, Jenard, Batangas State University, Lipa, IV-A, Philippines Zaitz, Brandon, Murchison Oil & Gas, Plano, TX, United States Zamora, Rosemarie, Batangas State University, Taysan, IV-A, Philippines Zeinalabideen, Mohammed, University of Kirkuk, Kirkuk, Iraq Zhang, Pengji, Jilin University, Changchun, China Zhang, Hao, Chengdu University of Technology, Chengdu, Sichuan, China Zhang, Wei, CNPC, Cheng Du, Jing Niu, China Zhang, Fengjiao, China University of Petroleum (East China), Qingdao, China Zhanshan, Xiao, China National Logging Corporation, Xi'an, Shaanxi Province, Yanta District, China Zhao, Ning, Chengdu University of Technology, Chengdu, Sichuan, China Zhao, Dan, CNPC, Cheng Du, Jing Niu, China Zhao, Jianpeng, Xi'an Shiyou University, Xi'an, China

Zhao, Yanwei, CNPC, Beijing, HaidianDistrict, China
Zhao, Xiaoqing, Northeast Petroleum University, Daqing, Heilongjiang, China
Zhiwei, Hu, Northeast Petroleum University, Daqing, Saltu, China
Zhou, Yi, Chengdu University of Technology, Chengdu, Sichuan, China
Zhou, Chunrun, Chengdu University of Technology, Chengdu, Sichuan, China
Zhou, Kaijin, CNOOC, Shenzhen, Nanshan, China
Zhou, Yanmin, China Oilfield Services Limited, Tongzhou District, Beijing, China
Zhuang, Wen, Chengdu University of Technology, Chengdu,

Sichuan, China

