



MONTHLY NEWSLETTER

# SPE Ghana INSIDER

JANUARY 2025  
edition

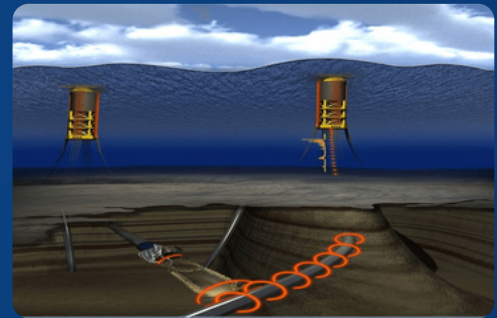
## Inside this edition

(COVERS JANUARY 2025)

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### Collision Avoidance for “Old” Offset Wells with Large Error of Uncertainties 2

The oil and gas drilling industry demands precision and adaptability in well planning. Collision avoidance is essential, especially with offset wells and low-end technology. Well planners should increase separation distances to minimize risks near active production wells. Real-time monitoring and quick decision-making are crucial, as demonstrated by a personal experience where recognizing imminent collision risks allowed for prompt preventive action.



Feature Article

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### New Frontiers in Intelligent Completions 4

A distinguished lecturer event with Muhammad Arsalan, Saudi Aramco

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### Understanding and Overcoming Unconscious Bias at the Workplace 5

Diversity & Inclusion

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### COMAC Ghana Sponsors 8 students through SPE Ghana Scholarships 7

SPE Ghana Scholarships

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### Volunteers of the Month 8

Awards & Recognition

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# Collision Avoidance for “Old” offset wells with large error of uncertainties

by Benedict Nortey, PMP®, PE

The world of oil and gas drilling is not for the faint of heart. Precision, knowledge, and the capacity to adapt to the unexpected are crucial in this field. Within this industry, I found myself at the helm of a challenging well planning project, one that would become a defining chapter in my career. This essay introduces you to the world of risky well planning with a specific emphasis on collision avoidance.

Nothing is more critical in the high-pressure world of oil and gas drilling than accuracy and safety. The key to navigating this complex environment is careful preparation. During this process, avoiding collisions in a field with close offset wells becomes a crucial issue. I will share a remarkable case study from my career as a well planner, a project that put me on a collision course and how I successfully navigated it.

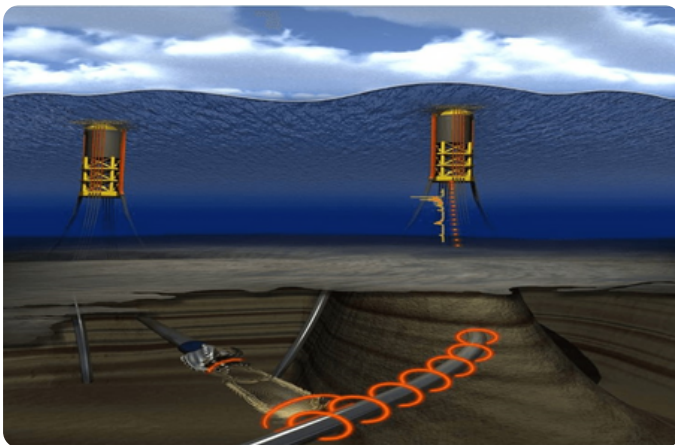


Photo Source: Well collision detection. Obelisk Petroleum Services. (2019, July 25). <https://obeliskps.com/products-and-services/well-collision-detection/> .Accessed on (2023, October 11)

Imagine a new well project that is in perilous proximity to offset wells, with a very large margin of error since the offset wells were surveyed with low-end technology tools. In this situation, well planners err on the side of caution and aim to increase the separation distance as much as possible with the wellbore trajectory they are planning. In the "start collision monitoring zone," the stakes are high, and the margin for error is almost nonexistent while drilling. What increased the complexity was the fact that my new well plan was adjacent to live production wells, surrounded by significant uncertainty, which meant the potential consequences of misjudgment were catastrophic.

At the heart of collision avoidance is the monitoring engineer while drilling. I wore this additional hat and was tasked with real-time tracking of surveys while drilling. This meant staying up late on the beach and discussing my findings with the offshore crew. My job was to project surveys to the bit, accounting for well curvature, and foreseeing the path ahead of the bit. This is where human expertise plays a defining role. My knowledge and experience came to the forefront in making immediate, high-stakes decisions.

The turning point in my tale came with the arrival of the third set of surveys. As I projected ahead, a chill ran down my spine. The well was perilously close to an offset well; a collision seemed imminent. With the clock ticking and the stakes soaring, I raised the red flag, and drilling operations came to a halt. My immediate actions would shape the outcome.

**Continue reading [here](#).**

# RENEW YOUR MEMBERSHIP WITH SPE

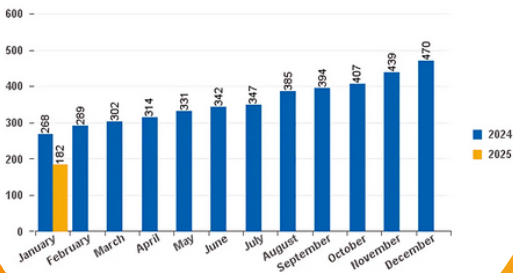
Innovative Solutions for Oil and Gas Professionals

**RENEW MEMBERSHIP** 

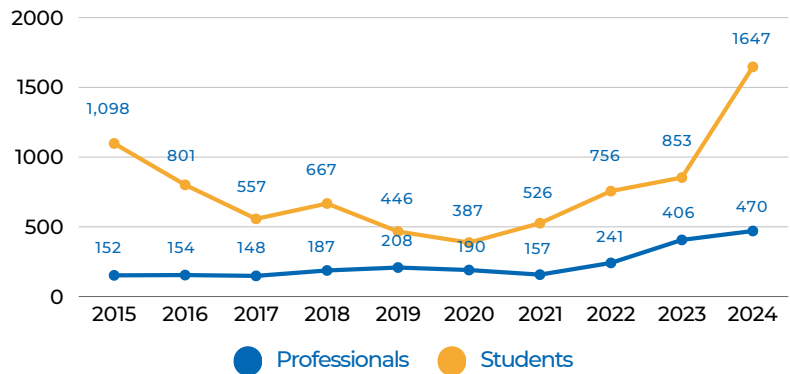
Join. Renew. Belong.



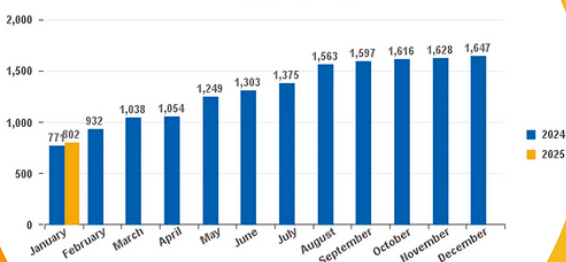
## Professional Membership Performance January 2025



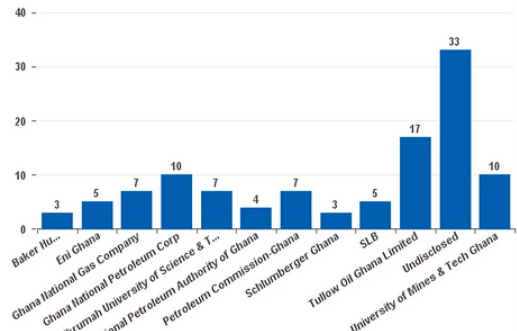
## SPE Ghana Membership Growth by Year



## Students Membership Performance January 2025



## Professionals by Employer (Top 12)



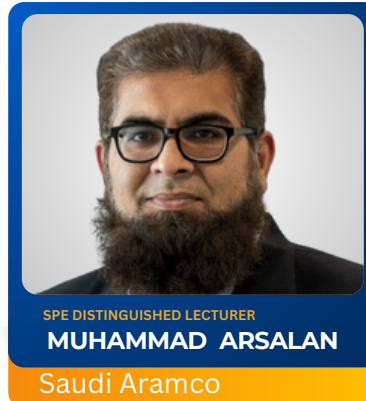
# New Frontiers in Intelligent Completions

## Abstract

Managing uncertainties in reservoirs, particularly in carbonate rocks, is a major challenge. Intelligent completions give the ability to monitor and control specific zones within wells. Without this control, the well may be lost when a zone unpredictably waters out and require mechanical intervention with its associated risks and costs. Most of the existing intelligent completions are limited to the newly drilled wells or cased holes. The challenge is to economically convert exiting open-hole horizontal wells into smart wells to achieve real-time monitoring and control for optimal recovery, enhanced production, and maximum operational efficiency.

With the aging of these oil wells, unwanted gas and water break-thru are commonly reported issues. With most of these wells in horizontal open-hole configuration, this leads to a work over, or in extreme cases, abandoning or sidetracking of the wells. To resolve these issues, Muhammad Arsalan proposes the revolutionary Thru-tubing Retrievable Intelligent Completion System (TRICS) is conceptualised, based on thru-tubing access for both initial completion and future modifications and replacements of existing, as well as, newly drilled wells.

Read more [here](#).



## Distinguished Lecturer's Profile

Dr. Muhammad Arsalan is a seasoned professional with over 25 years of experience in academia and various industries including energy, space, semiconductors, biomedical, and chemicals. He has over 100 international patents and publications related to advanced sensors, systems, and tools.

## Contributions to SPE

- He is the recipient of 2022 SPE Completions Award for MENA region
- He has presented various case studies demonstrating the impact of intelligent completions, such as a project in the North Sea that saw a 25% increase in production rate and a 20% reduction in operational costs.
- Lecture on New Frontiers in Intelligent Completions



## Achievements

- Recipient of multiple national and international awards.
- Received distinctions for his entrepreneurial skills and groundbreaking contributions in research and innovation.
- Leading multiphase metering, advanced sensing, and robotics at Saudi Aramco's Advanced Research Center.



DIVERSITY & INCLUSION

# Understanding & Overcoming Unconscious Bias at the Workplace



On January 24, 2025, the Ghana Section hosted a thought-provoking workshop on workplace bias, pioneered by the Diversity and Inclusion Committee. The discussion, titled **“Understanding & Overcoming Unconscious Bias at the Workplace,”** focused on raising awareness of the hidden prejudices that shape our professional interactions and decisions.

Workplace bias refers to the unconscious assumptions and judgments we make about colleagues, often leading to exclusion, misjudgment, and inequality. These biases, when unchecked, can negatively impact workplace inclusivity, hinder career progression, and limit the potential of talented professionals.

SPE Ghana Section is dedicated to fostering a professional environment where all individuals, regardless of background, are valued and provided equal opportunities. As part of our commitment to Diversity, Equity, and Inclusion (DEI), we actively campaign against unconscious bias and advocate for workplace policies that promote fairness and equal growth opportunities for all employees.

A recording of the session can be accessed [here](#).



## ELEMENTS OF GAS PRICING: UNDERSTANDING GAS PRICING FRAMEWORK



PEARL ESI AKYIREM  
Moderator



SYLVESTER ENUMI CUDJOE  
Manager, Commercial Operations  
Ghana National Gas Company Ltd  
Speaker

Thursday, 16th January, 2025

12:00 GMT

# Understanding Gas Pricing Framework

Understanding gas pricing is crucial for anyone involved in the energy sector. It encompasses the various factors that influence the cost of gas, including supply and demand dynamics, geopolitical events, regulatory policies, and market trends. By grasping this framework, stakeholders can make informed decisions, optimize resource allocation, and navigate the complexities of the energy market more effectively.

To deepen your understanding of this vital topic, click [here](#) to watch the Young Professionals & Students Lecture Series organised on 16th January, 2025.

# UI/UX Design for Oil and Gas Professionals



The engineering sector is increasingly emphasizing digital skills, prompting our Career Guidance and Outreach team to introduce a UI/UX training program aimed at oil and gas professionals, young professionals, and students from January 11 to 26, 2025. This program covered the basics of UI/UX design, focusing on user needs, wireframing, mockups, and prototypes, while also fostering safety, productivity, and collaboration among engineers and developers. Participants will gain experience with design software such as Figma, create user-friendly tools, and improve their career opportunities within the tech industry.

Get more from the training via this [link](#).

# Understanding Energy Sustainability and its Career Path

Watch the recorded session of the webinar on "Understanding Energy Sustainability and It's Career Path Dialogue," now available on YouTube!

Get inspired by the engaging conversation with our distinguished speaker as she discusses career paths, challenges, and opportunities in the energy sector. This dialogue is for professionals, students, or people exploring their career options

Watch the session [here](#).



# What Industries Expect from Students

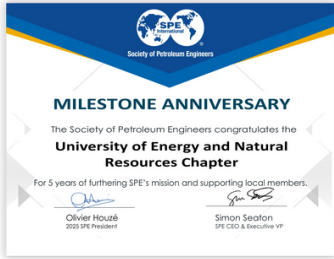
It is essential for students to be prepared for the job market, particularly in the energy sector, where excellence is paramount. Employers seek candidates who possess not only academic knowledge but also demonstrate exceptional leadership and problem-solving skills.

Explore some industry expectations for students by following this [link](#).

# Celebrating Milestone Anniversaries!



In January 2025, SPEI acknowledged its Sections and Student Chapters for reaching significant milestones! The Ghana Section, along with several of its student chapters, celebrated notable achievements: the Ghana Section and KNUST Chapter reached a remarkable 15-year milestone, while UG and UENR marked their 5-year milestone. These chapters, including KNUST, UG, and UENR, have been instrumental in promoting learning, collaboration, and innovation within the energy sector.



# COMAC Sponsors 8 Tertiary Students through SPE Ghana Scholarship

The SPE Ghana Scholarship Award recipients have been announced, recognizing their academic excellence and potential contributions to the energy sector. Thanks to the Chamber of Oil Marketing Companies (COMAC) for sponsoring this initiative, highlighting their commitment to education and developing future leaders. Congratulations to the recipients; we anticipate the positive impact you'll make in the field.

Your dedication and hard work have earned you this opportunity, and we are confident that you will continue to excel in your studies and future endeavors. This scholarship not only provides financial support but also opens doors to invaluable networking and mentorship opportunities within the industry.

## SCHOLARSHIP BENEFICIARIES



**Barnabas Amponsah**  
BTech. Petroleum Engineering, TTU, L300



**Lawrenceia Sowatey**  
BSc. Petroleum Engineering, UMaT, L200



**Jacob Kwabena Amueku**  
BSc. Petroleum Engineering, KNUST, L400



**Joseph Anyetei**  
BSc. Earth Science, UG, L300



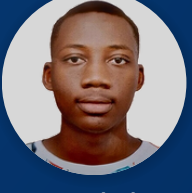
**Zume-Nibe Severa**  
BSc. Petroleum Engineering, UENR, L400



**Ebenezer Quayson**  
BSc. Petroleum Engineering, UMaT, L300



**Isaac Asiedu**  
B. Tech Oil and Gas Engineering, KTU, L400



**Annang Abraham**  
BSc. Marine Engineering, RMU, L300

# OUTSTANDING

VOLUNTEERS **JAN '25**



**Lawrencina Ohene**

Communications and Media Committee



**Francis Adjei**

Communications and Media Committee

# SPE Awards

## The Standard of Excellence



Society of Petroleum Engineers

### Prestige. Honor. Esteem.

Nominate a well-deserving colleague today.

SPE recognizes members for the following categories at two levels – Regional and International:

- Technical Contributions
- Service to Colleagues
- Professional Excellence
- Industry Leadership
- Career Achievement
- Public Service

### Dates and Deadlines

- 18 September** Nominations Open
- 15 February** International Nominations Close
- 25 February** CV/Resume or LinkedIn Profile & Supporting Letter(s) Due - International
- 1 March** Regional Nominations Close
- 10 March** CV/Resume or LinkedIn Profile & Supporting Letter(s) Due - Regional

**NOMINATE SOMEONE**

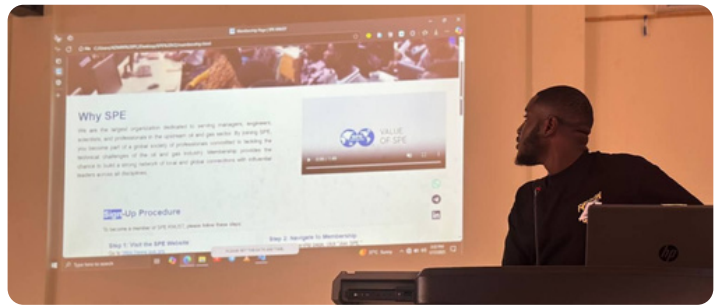


# Student Chapter Activities

In recent weeks, the SPE Student Chapters conducted an Orientation exercise at Kwame Nkrumah University of Science and Technology (KNUST), Takoradi Technical University (TTU), and the University of Mines and Technology (UMaT).

These sessions provided an excellent opportunity to familiarize students with the Society of Petroleum Engineers (SPE) at the different campuses, highlighting the numerous professional and academic growth opportunities available. Below are some photos from the orientations:

## Kwame Nkrumah University of Science and Technology



## Takoradi technical university



## University of Mines and Technology





Ghana Section

# YOUNG PROFESSIONALS SPOTLIGHT

FEBRUARY 2025

## Richard Gyamfi Andoh

**Graduate Trainee**, Stocks and Quality  
Control Department, Quantum  
Terminals Limited



### PROFILE

Richard Gyamfi Andoh joined the Society of Petroleum Engineers (SPE) in May 2021 as a member of the SPE KNUST Student Chapter. Upon completing his undergraduate degree at Kwame Nkrumah University of Science and Technology (KNUST) in 2024, he transitioned to a young professional member under the SPE Ghana Section.

### ACHIEVEMENTS

- First-Class Honors in **BSc. Petroleum Engineering** from Kwame **Nkrumah University of Science and Technology (KNUST)**.
- PetroBowl Team Captain, leading **KNUST** to victory in 2024 and qualifying for the International PetroBowl Championship.
- Recognized on the Provost's List for academic excellence (2022 and 2023).
- **1st Runner-Up** in the **2024 SLB PetroChallenge Competition**.

### SPE CONTRIBUTIONS

- Active member since 2021; served on Programs and Membership Committees at SPE KNUST.
- Volunteered in SPE activities like tree planting and Energy4Me outreach events.

### FUN FACT

Richard likes to read, and also enjoy watching movies.

### INSPIRING QUOTE

"Hard work and diligence pave the way to success."



# Coming Up (February Events)

**FINANCIAL MASTERY**  
FOR YOUNG ENERGY PROFESSIONALS  
Balancing savings, spending and investments

**Moderator:** Fredy Aggrey Mensah

**Speakers:** Abdel Raheem Mohamed (Chief Manager, Treasury Planning, WACF LSP Ltd), Nelson Kpateky (Investment Advisor, Standard Chartered Bank, Ghana)

**20th Feb, 2025** | 13:00hrs - 14:00hrs GMT | **live on ZOOM**

Register at [tinyurl.com/SPE-FinancialMastery](https://tinyurl.com/SPE-FinancialMastery)

**INTRODUCTION TO data ANALYSIS**

Topics: Introduction to Excel, Data Visualization in Excel, Data analysis in Excel, Introduction to Power BI

**Moderator:** Emmanuel Norko Okunribi

**Speaker:** Oshersonu Adyapong (Data Analyst, Data Science Professional Certificate, Engineering U2M)

**8th-23rd Feb, 2025** | 1pm on Saturdays - 3pm on Sundays | **live on ZOOM**

[www.speghana.com](http://www.speghana.com)

## SPE Gh Guess What Quiz

The Guess What Quiz is an interactive initiative aimed at educating students and young professionals on industrial terminology across various disciplines. It allows participants to solve brain teasers and riddles, making learning enjoyable and engaging while enhancing knowledge and keeping them updated.

**Digital Transformation In the Energy Industry**

**Moderator:** Richard Bobie

**Speaker:** Dr. Jude Kwaku Bonsu (Lecturer & Researcher, KNUST Chemical Eng. Department)

**Meeting ID:** 842 6296 8203  
**Passcode:** spegh

**21st February, 2025** | 12:30 GMT | **JOIN HERE**

[www.speghana.com](http://www.speghana.com)

**UNLOCKING THE BENEFITS OF SPE STUDENT MEMBERSHIP AND BEYOND**

**Speakers:** Mr. Fifi Nyarkotso (Petroleum Commission), Philip Kwasi Bannin (Student Liaison Officer, SPE Ghana Section)

**DATE:** FRI. 14TH FEB. 2025  
**TIME:** 12:00PM PROMPT  
**VENUE:** GOOGLE MEET

WE ARE SPE...

## Essay Column Project

The Essay Column assists students in crafting engaging, non-technical essays on energy topics, fostering creativity and critical thinking. Suggested themes include:

- Personal stories on energy use and sustainability
- Energy's role in communities and economies
- Futuristic energy scenarios and societal impacts
- Perspectives on energy justice and equity

Commentary on pop culture, literature, or art related to energy.

**GAS-TO-POWER FRAMEWORK: UNLOCKING OPPORTUNITIES FOR A SUSTAINABLE FUTURE.**

**Moderator:** JOHN KOOMSON

**Speaker:** KATE POKUA LAMPTEY (Senior Business Development Officer, Volta River Authority)

**Thursday, 27th February, 2025** | 12:00 GMT

**Zoom ID:** 812 6384 3234  
**Passcode:** spegh

[www.speghana.com](http://www.speghana.com)

**MAXIMIZING YOUR STUDENT MEMBERSHIP IN SPE**  
Benefits, Expectations and Opportunities

**Moderator:** LAWRENCE OHENE (KNUST)

**Speakers:** PHILIP K. BANNIN (SPE Ghana Section), VICTOR MUGAMBE (SPE Uganda Section), OSUNDI ETIAS (SPE-LASU)

Join Us For This Well Informing Cross-Chapter Webinar

**Friday, 21st February, 2025**

**04:00 pm GMT (Ghana)**  
**05:00 pm WAT (Nigeria)**  
**07:00 pm EAT (Uganda)**

Visit our website at [speknust.com](http://speknust.com)

<https://g.co/sgw/8XKxM> | **QR Code**

[SPE-KNUST](https://www.facebook.com/SPE-KNUST)

## Energy Wings

Wings is an initiative for students and young professionals to host discussions on the energy sector across platforms like X (formerly Twitter), LinkedIn, Zoom, and Google Meet. It will be launched in collaboration with various committees, including Communications, Programs, Student Liaison, and Young Professionals.

# Membership Benefits

- ✓ Conference discounts
- ✓ Free or discounted access to online education;
- ✓ Ten free technical papers each year;
- ✓ A complimentary subscription to Journal
- ✓ A wealth of resources for networking, knowledge building, career advancement, and streaming content;
- ✓ Select business and insurance discounts,

Find out more at

[www.spe.org/members/benefits/](http://www.spe.org/members/benefits/) 

# How to Join

*Joining SPE is EASY!*

Simply visit [www.spe.org/join](http://www.spe.org/join) 

Then register either as a student or a professional, using the relevant button provided on the webpage, as shown below:

For Professionals:

[Join Online - Professional](#)

For Students:

[Join Online - Student](#)



# Become an SPE Member

Despite being hundreds or even thousands of miles apart, SPE members continue to make connections with like-minded students and professionals within the E&P industry from all around the globe.

Plus, each year SPE recognizes members for their technical contributions, professional excellence, career achievement, service to colleagues, industry leadership, and public service.

So, what are you waiting for? Join us, or Renew your SPE Membership today and unlock your professional growth opportunities!

## Email

[secretariat@speghana.com](mailto:secretariat@speghana.com)

## Website

[www.speghana.com](http://www.speghana.com)

## Social Media

 SPE Ghana Section