

EAGE



AAPG



FIRST EAGE/AAPG/SEG CARBON CAPTURE UTILISATION AND STORAGE WORKSHOP (CCUS)

UNLOCKING THE POTENTIAL OF CARBON STORAGE:
STRATEGIES FOR A SUSTAINABLE FUTURE

21-23 OCTOBER 2025 | AL KHOBAR | SAUDI ARABIA

FIRST ANNOUNCEMENT

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OVERVIEW

CCS/CCUS technologies have emerged as critical solutions for mitigating greenhouse gas emissions, particularly in the rapidly industrializing and urbanizing Middle East region. Both the subsurface technical knowledge and related data sets of the petroleum industry are major inputs required for the world to successfully move towards a carbon-neutral and sustainable energy future. The Middle East with its exceptional petroleum systems and wealth of subsurface knowledge is a prime candidate to lead the CCS efforts worldwide.

The goals of the workshop are to promote knowledge sharing on the latest capture, transport and storage advances from renowned experts and industry professionals, focus on subsurface workflows for CCS evaluation through technical presentations, accelerate further consideration of the application of mainstream CCS technologies in the Middle East region, and exchange ideas and issues around CCS technology. The workshop will also shed light on CCUS-

focused climate action strategies along with CCUS economic and business models with a view on Carbon market opportunities, to exchange valuable and actionable insights, the EAGE/ AAPG/ SEG CCUS Workshop 2025 will bring together the expertise from subsurface specialists including geologists, geophysicists, geochemists, wells' design and operations, reservoir engineers, project managers, and petrophysicists, as well as research and academia.

TOPICS

1. CCS/CCUS in the Context of the Middle East

- The role of the Middle East in global CCS initiatives
- Leveraging petroleum industry expertise for CCS development
- The Middle East's geological suitability for CO₂ storage
- Challenges and opportunities for CCS in rapidly urbanizing regions
- International Standards in the Middle East context: ISO and others

2. Subsurface Workflows for CCS Evaluation

- Reservoir and overburden characterization for CO₂ storage
- The role of core in characterizing a CCS storage complex
- Changes in Rock Properties Due to CO₂ Injection
- Specific data collection for CCS project: shallow logs, water elemental analysis...
- Modeling and simulation of CO₂ injection and storage: from wellhead
- Lessons from EOR (Enhanced Oil Recovery) for CCS
- Role of seismic imaging in evaluating CCS reservoirs
- Dynamic Reservoir Behavior and Long-Term Storage Feasibility
- Geochemistry & Geomechanics workflows
- Interaction between reservoirs and seals

3. Machine Learning/AI for Subsurface / Production for CCS

- Automated baseline data utilization for natural events discrimination
- MMV data feed to digital twin for Automated/assisted Asset Performance and optimization
- MMV data feed for Automated/assisted carbon credits and LCA certification





4. Deployment of CCS Technologies in the Middle East

- Current CCS projects and pilot studies in the region
- Regulatory frameworks and policies for CCS deployment
- Role of national oil companies (NOCs) in advancing CCS
- Public-private partnerships for CCS projects
- Lessons from global CCS projects?

5. Plume migration and Leakage Monitoring for CSS

- EM, Seismic, Spot seismic and other imaging techniques
- Monitoring and verification techniques for secure storage
- Detecting CCS induced micro-seismicity
- Full chain Risk Register as input to MMV program
- Baseline recording: biosphere, atmosphere, hydrosphere, passive seismic and ground elevation – technology selection and strategies

6. Multidisciplinary Collaboration in CCS Projects

- Cross-industry knowledge sharing for successful CCS deployment
- Bridging the gap between academia, research, and industry in CCS: pilots and experimental data
- Contributions of geologists, geophysicists, geochemists, well geomechanics, and petrophysicists, and Well & reservoir engineers in CCS

7. Challenges and Solutions in CCS Deployment

- Addressing technical, financial, and operational challenges
- CO2 product specifications: full chain integrity vs capture cost
- Compositional assurance and metering
- Managing the impurity of the CO2 stream
- Building infrastructure to support large-scale CCS operations

8. Future Directions for CCS in the Middle East

- CO2 import: shipping
- Geological Challenges in Multi-Zone Storage Systems
- Emerging trends and research in CCS technologies
- Scaling up CCS to meet global climate goals
- Opportunities for innovation and investment in CCS
- Risks of evolving regulations to CCS projects
- Economics and financing of CCS projects
- Long term liabilities sharing mitigation

IMPORTANT DATES

Call for Abstracts Open	24 January 2025
Call for Abstracts Close	26 May 2025
Technical Programme Available	1 July 2025
Registration Open	25 June 2025
Early Registration Deadline	16 September 2025

SPONSORSHIP

To view the full range of sponsorship opportunities available at the event, please get in touch at corporaterelations@eage.org.



CONTACT

For more information on the workshop, please get in touch with the EAGE MEA team via middle_east@eage.org or +971 4 369 3897.

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