EAGE

EAGE GEOTECH

1ST EAGE GEOPHYSICAL MONITORING CONFERENCE AND EXHIBITION 2021

1-3 MARCH 2021 | THE HAGUE | NETHERLANDS

Third EAGE Workshop on
Practical Reservoir Monitoring

Second EAGE Workshop on
Distributed Fibre Optic Sensing

First EAGE Workshop on
Induced Seismicity

First EAGE Workshop on
Directional Drilling and Geosteering

FIRST ANNOUNCEMENT AND CALL FOR ABSTRACTS

SILIXA
sense the difference

WWW.EAGE.ORG

Welcome to
the First EAGE Geophysical Monitoring Technology Conference and Exhibition 2021

Third EAGE Workshop on
Practical Reservoir Monitoring

Second EAGE Workshop on
Distributed Fibre Optic Sensing

First EAGE Workshop on
Induced Seismicity

First EAGE Workshop on
Directional Drilling and Geosteering

ABOUT THE EVENT

The First EAGE Geophysical Monitoring Technology Conference and Exhibition is dedicated to the use of geophysical monitoring solutions and technologies in a wide range of subsurface, reservoir and production challenges.

Embracing the push towards a low carbon future and the emerging opportunities available for geoscientists, EAGE GeoTech 2021 will bring together leading experts in geoscience, reservoir engineering, drilling and data science to tackle some of the major challenges in subsurface resource production and other industrial applications.

GeoTech is a unique conference offering:

- Key focus on latest developments in geophysical monitoring technologies and techniques for optimal resource production and subsurface management;
- Four comprehensive technical programmes for the price of one;
- Unique exhibition featuring a specialized marketplace for innovative companies working in geophysical and geotechnical monitoring;
- High-level networking opportunities and collaborative experiences including the Icebreaker Reception and Cultural Evening.

FACTS

Date
1-3 March 2021

Venue
The Hague Conference Centre New Babylon, The Hague, The Netherlands

Expected Attendance
300 +

Expected Exhibitors
20 +

TECHNICAL PROGRAMME

The technical programme includes plenary talks, oral and poster sessions within the following four workshops taking place as parallel programs in the same venue. Each workshop will feature a focused technical programme facilitating deep discussion of the specific disciplines. At the same time, participants will also benefit from exposure to the other technical programmes with opportunities for crossover knowledge exchange and interaction.

Four technical streams, one amazing multidisciplinary programme:

- First EAGE Workshop on Induced Seismicity Monitoring
- Second EAGE Workshop on Distributed Fibre Optic Sensing
- Third EAGE Workshop on Practical Reservoir Monitoring
- First EAGE Workshop on Directional Drilling and Geosteering

ABOUT THE HAGUE

Known across the globe as the city of peace and justice, The Hague is one of the greenest, most compact and international cities in the world. With easy access to both city and beach, The Hague offers everything from royal palaces and timeless Dutch fishing harbors to endless opportunities to stroll the streets alongside the 'Hagenaars' and 'Hagenezen'. The Hague has excellent public transport service which allows you to travel by train, metro and bus.

CONFERENCE OVERVIEW

1 March	Conference & Exhibition Icebreaker Reception
2 March	Conference & Exhibition Cultural Evening
3 March	Conference & Exhibition

EXHIBITION AND SPONSORING

EAGE GeoTech 2021 will offer a uniquely focused geophysics exhibition, a fantastic marketplace for showcasing the latest technologies, innovative services and major players in geophysical monitoring and data management solutions. The exhibition will be the central meeting place where companies display products and services that are relevant to all four component workshops.

SPONSORING

Besides the exhibition, EAGE GeoTech 2021 offers excellent sponsorship opportunities giving your brand high visibility with the ability to reach a large and targeted audience. For more information about sponsorship, please refer to the event website or contact us at eage.events@eage.org.

IMPORTANT DATES

Registration Opens	
Early Exhibition Deadline	1 November 2020
Call for Abstracts Deadline	1 November 2020
Early Registration Deadline	5 January 2021
Regular Registration Deadline	5 February 2021
GeoTech2021 Conference	1-3 March 2021

CONTACT

EAGE GeoTech 2021 is organized by the EAGE Europe Office. For enquiries please contact the EAGE Europe office at +31 889955055 or email eage.events@eage.org For up-to-date information visit: **www.geotech.eage.org**

SOCIAL MEDIA

Follow **#eagegeotech2021** in your social media channels(Twitter, LinkedIn and Facebook) and get the latest updates about this conference!

Caption

First EAGE Workshop on Induced Seismicity

TECHNICAL COMMITTEE

Brian Baptie	British Geological Survey
David Bruhn	TU Delft/GFZ Postdam
Leo Eisner	Seismik
Sepideh Karimi	Nanometrics
Tijmen Jan Moser	Moser Geophysical Services
Claudio Strobbia*	realtimeseismic
Jan van Elk	NAM
James Verdon*	University of Bristol
Brecht Wassing	TNO

*Co-chairs

ABOUT THE WORKSHOP

Overview

The mitigation of induced and triggered seismicity, as a result of energy production and industrial activities, remains a major challenge for industries, local populations and governments around the globe. These hazards are often significant in European countries where industrial operations can occur in close proximity to populated regions. In some cases negative public reactions have led to the suspension of such activities. Long term seismic monitoring and geomechanical and seismological studies provide an increased understanding of the rupture process and scientific insights to facilitate the control and mitigation of induced seismic events while enabling the continuation of industrial activities.

The First EAGE Workshop on Induced Seismicity provides an opportunity to explore the latest developments in monitoring, modeling and mitigation of induced seismicity. Over three structured days of technical talks and discussions we will seek to examine the mechanisms and dominant factors related to the occurrence of felt induced events. Following an examination of the science, we will also explore how the geomechanical, seismological and geological expertise can best guide science based regulations, technical specifications and effective mitigation strategies.

Scope & Participant's Profile

The workshop is structured to emphasize the multidisciplinary nature of understanding and responding to induced seismicity. Participants from energy operators, service companies, regulators, academia, non-governmental organizations and other experts will gather to share valuable insights which lead to a collaborative and enhanced understanding of the major challenges faced.

We encourage submissions on all theoretical and practical aspects within a wide range of geological settings and industrial applications including: geothermal, mining, hydropower, oil and gas production, natural gas and CO2 storage, hydraulic fracturing, and wastewater injection. We especially encourage submissions of case histories and ongoing studies at European sites.

TOPICS

Day 1: Advances in Monitoring Induced Seismicity

- Passive Seismic Networks
- Data Acquisition and Processing
- Microseismicity
- Network Design and Specifications
- Best Practices
- Novel Instrumentation
- Automated Identification and Interpretation of Events
- Full-Waveform Modelling
- Advances in Survey Planning

Day 2: Triggering Mechanisms and Geomechanics

- Discrimination of Induced from Natural Seismicity
- Geomechanics and Triggering Mechanisms
- Understanding Fault Behaviour
- Modeling Induced Seismicity
- Laboratory Studies
- Case Histories

Day 3: Risk Assessment and Mitigation

- Mitigation Procedures
- Social Aspects and Public Interaction
- Management Systems
- Knowledge Based Regulations
- Industry and Regulatory Approaches

Second EAGE Workshop on Distributed Fibre Optic Sensing

TECHNICAL COMMITTEE

Mahmoud Farhadiroushan*	Silixa
Giuseppe Galli	Eni
Frode Hveding	SaudiAramco
Martin Karrenbach	OptaSense
Vincent Lanticq	Febus Optics
YingPing Li	Shell
Sara Morrggi	Eni
Nils Nother	fibrisTerre Systems GmBH
Roman Pevzner	Curtin University
Sebastian Soulas	BP
Ali Tura	Colorado School of Mines
Mark Willis	Halliburton
Andreas Wuestefeld*	NORSAR

*Co-Chairs

ABOUT THE WORKSHOP

Overview

Distributed fibre optic sensing technology has emerged as a powerful tool for continuous, high-temporal and spatial resolution mapping of the subsurface. The sensing technology is capable of high precision measurements of acoustic, strain and temperature energy distributions along the entire length of the optical fibre. This facilitates a cost-effective large-scale monitoring capability for a wide variety of novel subsurface applications over a single optical fibre installation.

Following a successful first edition, the Second EAGE Workshop on Distributed fibre Optic Sensing seeks to continue our exploration of the use of distributed optical fibre sensors for diverse energy and industrial applications. The workshop will focus predominantly on geoscience and engineering applications utilizing distributed acoustic (DAS), temperature (DTS) and strain (DSS) systems.

The technical programme will contain presentations on advancements in instrumentation, applications, and technology integration. A special focus will also be placed on current challenges, business impacts and evolving best practices. This workshop also includes a complimentary course introducing foundational elements of fibre optics science, distributed sensing technology and advanced applications.

TOPICS

We invite submissions suitable for both technical experts and generalists with interest in this technology. Case studies with examples of proven business impacts as well as modelling and theoretical studies are encouraged. These contributions will help the participants in the subsequent discussions to evaluate lessons learned and define "best practices".
We look forward to borehole and reservoir applications for monitoring production and injections challenges in hydrocarbons and geothermal projects. Contributions in the areas of mining, CO2 storage, groundwater and environmental geophysics are also encouraged.

Geophysical and Geotechnical Monitoring

- Seismic and VSP
- Microseismic
- Temperature
- Geotechnical & Geohazard Applications
- Strain Measurements

Integration

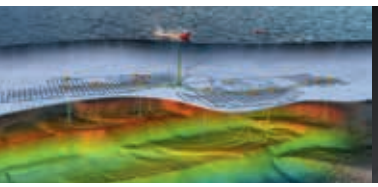
- Business Impact
- Reservoir Engineering
- Geomechanics Modelling
- Best Practices
- Progress in Processing and Interpretation Tools

Flow Measurements and Applications

- Leakage and Geohazard Detection
- Production Monitoring
- Temperature
- Non-oilfield Applications

Current Challenges and Needs

- Advantages of Fibre vs Geophones
- Calibration of Data
- Advances in Theoretical Background for Advanced
- Interpretation
- Processing Challenges



Third EAGE Workshop on Practical Reservoir Monitoring

TECHNICAL COMMITTEE

Paulo Johann	Petrobras
Didier Lecerf	PGS
John Even Lindgård	OCTIO Gravitude
Colin MacBeth	Heriot-Watt University
Paul Mitchell	TAQA
Mark Thompson	Equinor
Kanglin Wang	Shell

ABOUT THE WORKSHOP

Overview

The Third EAGE Workshop on Practical Reservoir Management presents another opportunity to examine the role and impact of reservoir monitoring techniques in improving production profiles of resource fields and yielding full life cycle returns.

In recent times major global disruptions have forced both companies and individuals to reflect how they operate and work. Meanwhile the price of oil has witnessed levels not seen since the early 2000's. Against this dynamic backdrop there is also the drive to a low carbon future, which will provide both challenges and opportunities in the future.

In response, the workshop will seek to explore the technological innovations and best practices which can lead to value generation and contribute towards optimal subsurface management solutions.

Aims of the Workshop

The workshop aims to examine how the use of modern reservoir surveillance practices can optimize field production, through multidisciplinary data integration and increased digitalization of the field, to maximize value and increase recovery factors. The benefits of different approaches to incorporate geophysical, geomechanical and reservoir engineering data for reservoir monitoring purposes will be investigated through case studies and extended discussions. We will also examine key issues surrounding continuous monitoring systems with real-time data processing and visualization demands.

Specialists from leading operators, service companies and academia will come together to exchange insights on the latest developments and value proposition of reservoir monitoring. We encourage oral presentations and posters exploring global perspectives on the use of reservoir monitoring techniques within various geographical and geological settings. Beyond the traditional applications in hydrocarbon reservoirs we also welcome applications in other fields such as hydrogen storage, carbon storage and geothermal reservoirs. As in previous workshops, we will continue to monitor the progress of Permanent Reservoir Monitoring as well as emerging techniques and trends in 4D applications and alternative geophysical methods.

TOPICS

The committee would like to encourage you to submit your abstracts for poster or oral presentations on the following topics:

Permanent Reservoir Monitoring

- Established Installations
- New Installations
- In-well
- User Cases
- Well Planning
- Reservoir Management
- Production Optimization
- Overburden Integrity
- Drilling Operations

Developments in the Use of 4D for Modelling

- Reservoir
- Geomechanical
- Geomodelling

Realtime Monitoring

- Passive Seismic
- Microseismic

New Geophysical Methods & Technologies

- Shear and Surface Waves
- Broadband Seismic
- Simultaneous Sources
- Autonomous Sources and Receivers
- Distributed Sensing (DAS, DTS, DSS)
- Non-Seismic Methods (Gravity, EM, CSEM etc)

New Insights

- Data Integration and Interpretation: Geophysics,
- Engineering, In-well Sensing, Geomatics, etc.
- Automation and Digitalization
- Data Analytics (Machine Learning, Deep Learning, etc)
- Open Datasets and Open Data Sharing

First EAGE Workshop on Directional Drilling and Geosteering

ABOUT THE WORKSHOP

Overview

The integration of directional drilling and geosteering workflows allows for the precise and optimal navigation of a wellbore to specified resource targets (oil and gas, ore body, geothermal etc). The utilization of historical and real-time geophysical and geological information for optimal well placement also provides key benefits in increasing production and recovery factors while improving safety and mitigating risks.

This First EAGE Workshop on Directional Drilling and Geosteering seeks to examine how real-time insights into the subsurface while drilling can contribute to increased efficiency and accuracy of well placements for resource production. We will mainly seek to address the integration of real-time data with other subsurface information for automated directional drilling workflows.

Other key issues such as real-time data accuracy, transmission rates and lookahead imaging will also be addressed. The workshop also includes a complimentary course which will give a comprehensive introduction to well planning and modern real-time geosteering techniques as well as sharing well placement case studies and best practices from around the globe.

Scope

We invite submissions for posters and oral presentations in a wide range of topics related to directional drilling, well placement and geosteering. Case studies are especially encouraged as well as novel data acquisition and interpretation techniques, and applications highlighting automation techniques and advanced data analytics.

We look forward to applications in resource production, including oil and gas, deep ore mining, and geothermal energy. Infrastructural and engineering applications (microtunneling, near-surface horizontal drilling, etc.) are also welcomed.

Participant's Profile

Well planning and placement is a highly multidisciplinary process and as such we encourage a wide range of participants including: Geophysicists, Geologists, Drilling Engineers, Reservoir Engineers, Rock Physicists, Geomechanics Domain Experts, Data Scientists, Asset Managers and other key decision makers.

TOPICS

The committee would like to encourage you to submit your abstracts for poster or oral presentations on the following topics:

Data Integration and Multidisciplinary Workflows

- Integration of directional drilling and geosteering workflows
- Geophysical measurements while drilling (LWD/MWD/SWD)
- Role of high-resolution image logs in well placement
- Real-time petrophysical interpretation while drilling
- Geological, drilling and geophysical datasets integration for increasing the accuracy of well placement

Case Studies and Best Practices for Well Placement and Geosteering

- Directional drilling and well placement in conventional reservoirs
- Directional drilling and well placement in unconventional plays
- Geosteering in challenging environments: complex geology; proximity to fluid contacts; thin target intervals
- Directional drilling for infrastructure

Wellbore Trajectory Uncertainty Measurements

- Modern ways of reducing uncertainty of wellbore position
- Anti-collision of wells
- Automation and Data Analytics. Role of Modern IT Technologies

Automation of directional drilling and geosteering decision process

- Cloud-based solutions
- Advanced data analytics. Get the most out of your data
- Role of AI and Machine Learning in well placement

Current Challenges and Future Developments

- Real-time downhole data transmission
- Ultra-deep directional resistivity tools. Inversion and distance-to-boundary calculation.
- Lookahead imaging. Prediction ahead of the bit
- Multi-lateral and complex trajectory wells. Extended reach drilling
- Drill-bit Seismic applications
- Wellbore pressure prediction and stability. Mud weight optimization. Analysis of pressure profiles
- Improvement of communication and decision making process. Bridging the gap betweeen drilling and geology disciplines

CALL FOR ABSTRACTS

SUBMIT YOUR ABSTRACT BEFORE 1 NOVEMBER 2020

EAGE
EUROPEAN ASSOCIATION OF GEOSCIENTISTS & ENGINEERS

HEAD OFFICE
+31 88 995 5055
EAGE@EAGE.ORG
WWW.EAGE.ORG

RUSSIA & CIS OFFICE
+7 495 640 2008
MOSCOW@EAGE.ORG
WWW.EAGE.RU

MIDDLE EAST OFFICE
+971 4 369 3897
MIDDLE_EAST@EAGE.ORG
WWW.EAGE.ORG

ASIA PACIFIC OFFICE
+60 3 272 201 40
ASIAPACIFIC@EAGE.ORG
WWW.EAGE.ORG

LATIN AMERICA OFFICE
+57 1 7449566 EXT 116
AMERICAS@EAGE.ORG
WWW.EAGE.ORG

EUROPE OFFICE • PO BOX 59 • 3990 DB HOUTEN • THE NETHERLANDS • +31 88 995 5055 • EAGE@EAGE.ORG • WWW.EAGE.ORG

join us on social media!