EAGE

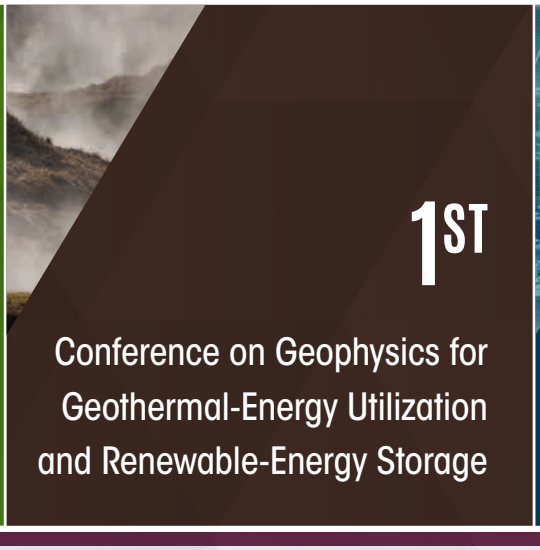
EUROPEAN ASSOCIATION OF GEOSCIENTISTS & ENGINEERS

CONFERENCE & EXHIBITION

NEAR SURFACE GEOSCIENCE'19

25TH

European Meeting of Environmental and Engineering Geophysics



1ST

Conference on Geophysics for Geothermal-Energy Utilization and Renewable-Energy Storage

1ST

Conference on Geophysics for infrastructure planning, monitoring and BIM

8-12 SEPTEMBER 2019

THE HAGUE, THE NETHERLANDS

FIRST ANNOUNCEMENT & CALL FOR ABSTRACTS

WWW.NSG2019.ORG

#NSG2019

Welcome to
the Near Surface Geoscience Conference & Exhibition 2019

25TH European Meeting of Environmental and Engineering Geophysics

1ST Conference on Geophysics for Geothermal-Energy Utilization and Renewable-Energy Storage

1ST Conference on Geophysics for infrastructure planning, monitoring and BIM

On behalf of the Near Surface Geoscience Division I invite you to attend the Near Surface Geoscience Conference and Exhibition 2019, in The Hague (8-12 September 2019). The great increase of EAGE members affiliated to our Division (1995: 295 members from 32 countries – 2017: 5225 members from 99 countries), the various projects (mining, geotechnical, environmental, archaeological, agricultural, shallow marine, geothermal, etc) that now consider geophysical surveys a necessary tool for an integrated approach, the EU Programme calls related to geophysical research for use to the previous projects, all lead to the continuous improvement of the Near Surface Geoscience Conference and Exhibition.

Since 2014 in Athens, the Near Surface Geoscience Conference and Exhibition includes not only the Meeting of Environmental and Engineering Geophysics, but also parallel conferences on hot topics. This format has given us the opportunity to better show the collaboration of geoscientists and engineers in an integrated manner.

NSG2019 will include: the "25th Meeting of Environmental and Engineering Geophysics", the "1st Conference on Geophysics for Geothermal and Renewable Energy Storage", and the "1st Conference on Geophysics for Infrastructure Planning, Monitoring and BIM". In the Netherlands, in Europe, and in all parts of the world there is great research activity and interest in these future-focused topics. We will be hosting, as usual, a fantastic array of workshops and field trips. Finally, commercial exhibitors will introduce you to the latest offerings in geophysical equipment, technology and services related to the topics of the Meeting.

The Near Surface Geoscience Division and I look forward to welcoming you in The Hague. I do hope that you will join us to present your work, to attend a great variety of sessions, to network with leading professionals from around the world and to share your experiences with friends old and new. It is what makes this Meeting so special.

George Apostolopous
Chair, Near Surface Geoscience Division

ABOUT THE EVENT

The 2019 conference will host the:
- 25th European Meeting of Environmental and Engineering Geophysics
- 1st Conference on Geophysics for Geothermal and Renewable Energy Storage
- 1st Conference on Geophysics for Infrastructure planning, monitoring and BIM

For this year's Near Surface Geoscience Conference and Exhibition, the 25th conference of the European Meeting of Environmental and Engineering Geophysics will be complemented by two brand new and future focused conferences. Through this innovative combination, NSG2019 will:

- Provide insight into emerging fields in renewable-energy storage and near-surface-related infrastructure planning;
- Offer three world-class technical programmes in the near surface field for the price of one;
- Bring together the most innovative companies working in the near surface industry into our growing exhibition;
- and offer some incredible networking opportunities through our delightful social programme, including our Conference Evening and Welcome Reception in the Exhibition.

Facts

Dates	8-12 September 2019
Venue	Fokker Terminal
Location	The Hague, The Netherlands
Expected attendance	500-550
Expected exhibitors	45

Conference overview

Sunday 8 September 2019	Workshops
Monday 9 September 2019	Conference & Exhibition Welcome Reception
Tuesday 10 September 2019	Conference & Exhibition Field Demonstrations Conference Evening
Wednesday 11 September 2019	Conference & Exhibition
Thursday 12 September 2019	Field Trips

Important dates

Deadline Early Exhibition Rate	01 March 2019
Registration Open	April 2019
Deadline Call for Abstracts	15 April 2019
Deadline Early Registration	22 July 2019
Registration Closed	26 August 2019

WORKSHOPS AND FIELD TRIPS

Near Surface Geoscience 2019 will offer workshops and field trips. The workshops are scheduled on Sunday 8 September and the field trips on Thursday 12 September 2019. Some of our workshops include:
- Workshop: Geophysics for Geohazards
- Workshop: Benchmark Testing for GPR
- Workshop: Forensic Geophysics

For more up-to-date information on our workshops and field trips, please check out www.nsg2019.org.

EXHIBITION AND SPONSORING

Near Surface Geoscience 2019 will include an exhibition held in one large area enabling networking. Key international companies from the Near Surface Geoscience industry will present their latest developments, newest technologies and innovative services.

Besides the exhibition, Near Surface Geoscience 2019 will offer a wide variety of sponsoring opportunities. As a sponsor, you will have dedicated exposure at the event. If you are interested in participating at this event as an exhibitor or sponsor, please refer to the EAGE website or contact us at exhibition@eage.org.

FIELD DEMONSTRATIONS

EAGE offers exhibitors the opportunity to showcase their products live at the conference venue. For more information about this increasingly-popular event, please contact the exhibition team.

VENUE

The Near Surface Geoscience 2019 Conference & Exhibition will be held at the Fokker Terminal. The Fokker Terminal is an inspiring industrial building, which has, prior to being an event venue, been a school for Fokker's aircraft engineers. It has recently been added to the list of The Hague monuments. The venue offers a uniquely appealing environment for our growing exhibition and technical programme, perfectly integrating both aspects of this meeting.

ABOUT THE HAGUE

The Hague, the seat of Dutch Government, is a city on the frontier of major developments in science and engineering. The Netherlands, due to its unique geography, has always been an exemplar in the development of infrastructure, and near surface solutions to energy. Coupled with a vibrant culture and great food, The Hague offers the perfect venue for the most significant meeting in Near Surface.

SOCIAL MEDIA

We have opened a dedicated LinkedIn group for Near Surface Geoscience 2019. Here you will find all the latest updates on all the three conferences. Feel free to add comments, to like, share or tag our posts and don't forget to follow us!

ACCESSIBLE CITY

The Hague is easy to access from many airports, including Amsterdam and Rotterdam. Trainlines make the city easy to reach, and good bus and tram connections make inner city traversal easy and affordable. Accommodation is high quality and affordable.

CONTACT

For more information or enquiries please visit the event website www.nsg2019.org or contact the EAGE Europe Office via registration@eage.org.

25TH | European Meeting of Environmental and Engineering Geophysics

WELCOME BY THE LOCAL ADVISORY COMMITTEE

For its 25th edition, the European Meeting of Environmental and Engineering Geophysics will continue to build on 25 years of research and development in the field of engineering geophysics as we join our two new sister conferences in The Hague between 8-12 September 2019. The three-day scientific conference will cover a wide range of topics related to the near surface field, drawing on a wealth of excellent plenary talks, oral and poster presentations, and rich discussions. Being Europe's most significant meeting of its kind, the 25th European Meeting of Environmental and Engineering Geophysics offers participants the opportunity to meet the people behind the most cutting-edge research across a range of topics, from the applications of geophysics to the emergence of new technologies and research trends. Take part in the bright future of environmental and engineering geophysics, and join us in The Hague.

LOCAL ADVISORY COMMITTEE

Evert Slob (Co-Chair)	TU Delft
Ranajit Ghose (Co-Chair)	TU Delft
Dominique Ngan-Tillard	TU Delft
Elmer Ruigrok	KNMI
Ivan Vasconcelos	Utrecht University
Johannes Singer	Fugro
Robert van Ingen	T&A Survey
Richard de Kunder	Seismic Mechatronics
Deyan Dragonov	TU Delft

SCIENTIFIC COMMITTEE

Deyan Draganov (Chair)	TU Delft
Antonis Giannopoulos	University of Edinburgh
Elmer Ruigrok	KNMI
Evert Slob	TU Delft
Ivan Vasconcelos	Utrecht University
Johannes Singer	Fugro
Ranajit Ghose	TU Delft

TECHNICAL PROGRAMME

The technical programme will include a variety of oral and poster presentations on a broad selection of near surface geoscience-related topics. Should you wish to contribute to the technical programme, please refer to the 25th European Meeting of Environmental and Engineering Geophysics website: www.nsg2019.org.

Call for Abstracts

The call for papers is open. The deadline for submitting extended abstracts is **15 April 2019**. All abstracts must be submitted in standard format and will be peer-reviewed before final selection by the scientific committee.

Topics

1.01 Applications of Airborne Geophysics
1.02 Applications of Borehole Geophysics
1.03 Applications of Land Geophysics: Urban Areas, Industrial Sites, Landfills, Storage Sites, and Tunnels
1.04 Applications of Marine Geophysics and Exploration of Flooded Mines
1.05 Archaeogeophysics
1.06 Artificial Intelligence / Autonomous Platforms
1.07 Artificial Intelligence / Machine Learning
1.08 Environmental Geophysics
1.09 Geophysics for Agriculture
1.10 Geophysics for Cold Zones (Cryosphere)
1.11 Geophysics for Geotechnical Engineering (Including Tunnels And Slope Instability)
1.12 Geophysics for Hot Zones (E.G., Volcanoes, Hot Spots)
1.13 Geophysics for Mining and Mineral Exploration
1.14 Hydrogeophysics
1.15 Methods 1: Seismic and Ground-Penetrating Radar
1.16 Methods 2: Electromagnetic, Nuclear Magnetic Resonance, and Induced Polarization
1.17 Methods 3: Electrical Resistivity, Gravity, Magnetic
1.18 Method Integration and Joint Inversion
1.19 Modelling, Inversion and Data Processing
1.20 Monitoring and Characterization
1.21 New Technologies, Developments and Research Trends

1ST | Conference on Geophysics for Geothermal and Renewable Energy Storage

Geothermal energy is anticipated to play a crucial role to meet the future energy demand. Exploration of new geothermal fields and further assessment and exploitation of the existing ones need dedicated geophysical surveys, in addition to geological, geochemical, petrophysical, and rock-mechanics information. Gravity, magnetic, magnetotelluric, time-domain electromagnetic, and seismic methods have been used separately or in combination in many past geothermal field campaigns.

Recent developments suggest extended capability of geophysics in exploration of geothermal fields and renewable-energy storage, using both surface and downhole measurements. This conference will be the first one to focus specifically on the geophysical developments dedicated to this goal. Case studies showing application and challenges of geophysics for exploration and evaluation of geothermal and renewable-energy storage, as well as research results indicating trends, important solutions, and future possibilities are welcome. Professionals from academia, research centres, service companies, operators, and energy companies are invited to take part and present in this conference, which is to be held between 8 and 12 September, 2019 in The Hague, a city where geothermal energy is chosen to play a major role in the coming decades.

SCIENTIFIC COMMITTEE

Anne Obermann	Swiss Seismological Service
Richard Bakker	TU Delft
Armadillo Egido	DISTAV, Universita degli Studi di Genova
Flavio Poletto	Nat. Inst. of Oceanography & Exp. Geophysics OGS
Thomas Reinsch	GFZ German Research Centre for Geosciences
Wouter van Leeuwen	IF Technology
Arie Verdel	TNO

TECHNICAL PROGRAMME

The technical programme will include a variety of oral and poster sessions on a broad selection of Geothermal and Renewable Energy Storage related topics, further specified below. Based on the extended abstracts received, the presentations will be combined into dedicated sessions. In addition, there will be keynote lectures from leading international experts. Should you wish to contribute to the technical programme, please refer to the Geothermal and Renewable Energy Storage at: www.nsg2019.org.

Call for Abstracts

The call for papers is open now. The deadline for submitting extended abstracts is **15 April 2019**.

Topics

2.01 Active-source Electromagnetic Methods
2.02 Active-source Seismic Methods
2.03 Borehole Geophysics and VSP
2.04 Case Studies
2.05 Fiber-optic Applications
2.06 Gravity, Magnetics, Electrical Resistivity
2.07 Laboratory Geophysics and Rock Physics
2.08 Multi-method Studies
2.09 Passive-source Electromagnetic Methods
2.10 Passive-source Seismic Methods, including Ambient Noise and Earthquakes

1ST Conference on Geophysics for Infrastructure Planning, Monitoring and BIM

The conference will provide a platform for academia, governmental institutions and industry to address the challenges related to infrastructure life cycle: prior, during and after the construction of engineered structures and their long-term maintenance.

Detailed imaging of challenging geology, as well as quantification of physical properties of the soil- subsoil, are among the significant roles that geophysics can play during the infrastructure planning phase. In addition to these characterization tasks, geological risk assessment is a critical first step during the design of infrastructure projects. A detailed evaluation of the possible disruptions to infrastructure caused by natural events can avoid budget overruns, significant delays during the construction phase and excessive maintenance costs throughout the lifespan.

Monitoring during and after construction are important control measures for hazards associated with infrastructure development. At these stages, the geosciences can make a valuable contribution to assessing the impact of construction on the risk of landslides, subsidence, structure-related noise and/or building damage. Geophysical methods can provide subsurface information at high resolution in space and time, and may be used to detect subsurface objects and utilities, as well as to identify problem areas for targeted maintenance of ageing infrastructure.

In all these steps prior, during and after construction, geophysical information must be delivered in a way that is meaningful to geotechnical and civil engineers, planners and asset owners. For this purpose, links between geophysics and geotechnical models must be established and new efforts must be made to communicate novel and multidisciplinary datasets. BIM (Building Information Modelling) tools are now becoming crucial for the communication of geomodels to clients, thus aiding decision making and overall understanding of the results.

Finally, special focus will be placed on new technologies and methodologies that can enhance the efficacy of the geophysical methods applied to infrastructure, and on more challenging working environments such as in mega cities and in shallow-water cover infrastructure developments.

SCIENTIFIC COMMITTEE

Beatriz Benjumea (Chair)	Cartographic and Geological Institute of Catalonia
Takao Aizawa	Suncoh Consultants and SEGJ
Thomas Dickmann	Amberg Technologies
Shane Donohue	University College Dublin
Charlotte Krawczyk	GFZ
Oliver Kuras	British Geological Survey
Alireza Malehmir	Uppsala University
Andreas Pfaffhuber	Norwegian Geotechnical Institute
Helen Reeves	British Geological Survey
Robert Sturk	Skanska
Koya Suto	Terra Australis Geophysica Pty Ltd
Mats Svensson	Tyréns, Sweden
Mark van der Meijde	University of Twente
Arre Verweerd	AECOM
Ernst Niederleithinger	BAM

TECHNICAL PROGRAMME

The technical programme will include a variety of oral and poster presentations on a broad selection of topics on Geophysics for Infrastructure Planning, Monitoring and BIM. More information related to the technical programme will be posted on www.nsg2019.org.

Call for Abstracts

The call for papers is open now. The deadline for submitting extended abstracts is **15 April 2019**.

Topics

3.01 Advances in Joint Modeling, Inversion and Integration of Geophysical Data
3.02 Assessing Geotechnical Infrastructure Condition Using Geophysics (e.g., Bridges, Embankments, Slopes, Dams, Highways, Airports, Railroads)
3.03 Assessment of Hazards Induced by Constructions (e.g., Landslide, Subsidence, Building Damage)
3.04 BIM Tools and Showcasing Applications
3.05 Communication of Underground Geo-Related Geophysical Data to Geotechnical and Geomechanical Engineers
3.06 Detection and Localization of Underground Objects and Buried Utilities
3.07 Geological and Climate-Related Risks and Impacts to Infrastructures
3.08 Geophysical Methods Applied in Shallow-Water Cover Infrastructure Development
3.09 Infrastructure Planning, Assessment and Monitoring in Mega-Cities
3.10 Links Between Geophysics and Geotechnical Models
3.11 New and Emerging Technologies (e.g., Artificial Intelligence, Airborne, Satellite, UAV, Fiber Optics, Digital Sensors, DAS Etc.)
3.12 New Developments in Geophysical Methods for Infrastructure Planning, Assessment and Monitoring During and after Construction

Call for Abstracts Open: **Submit Today!**

WWW.NSG2019.ORG

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