

INTERNATIONAL ASSOCIATION FOR ENGINEERING GEOLOGY AND THE ENVIRONMENT ASSOCIATION INTERNATIONALE DE GEOLOGIE DE L'INGENIEUR ET DE L'ENVIRONNEMENT





Issue No.4, 2024 Website:www.iaeg.info Electronic Version



Earth from space: Massive landslide dams Canadian river, trapping endangered fish on the wrong side

A recent landslide along the banks of a river in British Columbia completely dammed the waterway, leading to evacuation warnings and potentially dooming an endangered fish population trapped on the wrong side of the debris.



Satellite photos of the Chilcotin River taken by Landsat 9 before the landslide (July 16) and after the landslide (Aug. 1) show how the river swelled up after being dammed. (Image credit: NASA Earth Observatory/Wanmei Liang/Landsat)

QUICK FACTS

Where is it? The Chilcotin River, British Columbia [51.85860344, -122.82148613]

What's in the photo? Debris from a landslide blocking the flow of the river.

Which satellite took the photo? Landsat 9

When was it taken? Aug. 1, 2024

Striking new satellite imagery shows a Canadian river quickly swelling in size after a massive landslide completely dammed the waterway. The obstruction may have also doomed an endangered salmon population by preventing the individuals that survived the sudden damming from reaching their

spawning grounds upriver.

The massive landslide occurred late on July 30 near Farwell Canyon on the southern bank of the Chilcotin River — a 150-mile-long (240 kilometers) tributary of the Fraser River. The landslide took place around 14 miles (22 km) upstream from where the Chilcotin joins the Fraser, dumping roughly 640 million cubic feet (18 million cubic meters) of earth and rock across the waterway and completely blocking its flow, according to an emergency statement from the British Columbia government.

Within less than 48 hours, the river had swelled significantly, breaking its banks at several points and



Before Aug. 5, no water could flow through the debris left behind by the landslide. (Image credit: Province of British Columbia)

forming a debris-filled lake behind the blockage, images from NASA's Earth Observatory show. The stretch of the Chilcotin between the landslide and the Fraser River was left almost completely dry.

Regional authorities quickly issued evacuation orders for residents living close to the banks downstream of the blockage, fearing that the rocky dam would eventually break and release a surge that could cause flash flooding or trigger further landslides downstream. It is unclear how many people were evacuated.

On Aug. 5, part of the dam finally broke, unleashing a torrent of water that violently raced through the previously emptied riverbed. Despite the water flowing at more than 12,000 cubic feet (3,500 cubic meters) per second, the surge of water did not cause any major damage.

However, the landslide will likely have a major impact on the river's resident sockeye salmon (Oncorhynchus nerka), most of which were likely downriver of the landslide when it occurred, according to a statement from the Tŝilhqot'in Indigenous nation.

Not only did some of the fish likely die after being stranded and suffocating in the dried-up section of



the river, but any survivors that were in the Fraser River will now have a much harder time reaching their spawning grounds in Taseko Lake — around 45 miles (72 km) upstream of the remaining obstruction, according to NASA's Earth Observatory.

The International Union for the Conservation of Nature (IUCN) Red List of Threatened Species currently lists sockeye salmon as "least concern" due to rising numbers worldwide, but the Taseko population is listed as "endangered" by the Committee on the Status of Endangered Wildlife in Canada and was already experiencing record low levels of spawning before the landslide occurred. As a result, Tŝilhqot'in conservationists are worried about the population's future survival prospects.

Subsequent satellite images released by NASA's Earth Observatory show that the change in the Chilcotin River's flow has caused the water to pick up large amounts of sediment from the river bed, turning the waterway and the Fraser River yellow-brown. Although this effect will be temporary, the changes in water quality could further affect freshwater species downriver.

This is not the first time a landslide has impacted the Chilcotin River. The Tŝilhqot'in people named the area surrounding the waterway Nagwentled, meaning "landslides across the river" in the Athabaskan language, according to NASA's Earth Observatory. However, this is one of the most significant obstructions along the river in recent times.

Provided by Harry Baker published August 27, 2024, Live Science



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IAEG NEWSLETTER | Electronic Version

Electronic Version Issue No.4, 2024 Website: www.iaeg.info Edited by the IAEG Secretariat, Shaoxing, China

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GLORY AND DREAM: THE 60th ANNIVERSARY MEMOIRS

This column will revisit the memoirs of past presidents and secretaries-general, as featured in the 50th anniversary book. In this issue, we will retrospect Past President EVGENY MIKHAILOVICH SERGEEV, MICHAEL LANGER and OWEN WHITE, and Secretary General LOUIS PRIMEL and MICHEL DEVEUGHÈLE. (All the contents regarding this column are completely extracted from *IAEG 50* Years Book.)

NIEK RENGERS:

President from 2002 to 2006

MSc Geology at Leiden University (Netherlands) in 1965; PhD in Civil Engineering at KarlsruheUniversity (Germany) in 1971 with Leopold Müller; Associate Professor Engineering Geology at International Institute for Earth Observation and Information Science (ITC) Enschede (Netherlands) and Faculty of Mining Engineering of Delft University of Technology until retirement in 2004; visiting Professor at Chengdu University of Technology (China), since 2007.

My involvement as president of the IAEG cannot be described without an introduction to my previous activities within the IAEG as vice president. In 1998, the IAEG council meeting in Vancouver (Canada) elected Antonio Gomes Coelho and me as the two vice presidents of the IAEG for the European region from 1998 to 2002 under the presidency of Sijing Wang from China. Traditionally the IAEG had divided the European region into Eastern and Western parts, but



Antonio and I decided to break with this tradition, and divided Europe into Northern and Southern regions. With more than 30 European national groups of the IAEG we had a large share of both the national groups and IAEG members worldwide.

During my vice presidency I twice organised a regional meeting of national group representatives for northern Europe, in Hanover (Germany) in October 2000 and in Helsinki (Finland) in August 2001. The most important issues discussed at these meetings were: a) how to arrive at a stronger position as engineering geologists in the professional field of geo-engineering in competition, or collaboration, with our colleagues from soil mechanics and rock mechanics, and b) how could we, with responsibility for engineering geology, contribute to the harmonisation, or at least a common system of content definition, of educational programs in our discipline at the universities in Europe that would improve the mobility of engineering geologists between the different European countries.

Helmut Bock was at that time chair of our German national group and a longterm personal friend of mine since we both spent

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our PhD study period at the Department of Rock Mechanics of Karlsruhe University in the late 1960s. Upon Helmut's suggestion we proposed to the presidents of the ISSMGE (William van Impe, Belgium) and the ISRM (Marc Panet, France) to setup a Joint European Working Group (JEWG) of the three associations to prepare a report with recommendations on these issues. The IAEG Council meeting in Helsinki approved this approach as did the other sister societies.

I was convinced that it was important to work towards closer collaboration with engineers in ISRM and ISSMGE in the field of geoengineering, instead of competition. Consequently, I decided to accept the nomination for the next presidency of the IAEG (2002 to 2006). The Council of IAEG in Durban elected me president for 2002 to 2006. During the four years that I served as president I experienced a very pleasant collaboration with the regional vice presidents and strong support from our secretary general Michel Deveughèle, with his assistant Francoise Nore and treasurer Pierre Potherat, all from France. Thanks to their efforts the administrative and financial affairs of the IAEG were in very safe hands. The excellent administrative and financial performance of the Association during the period of my presidency is fully the result of their hard work and commitment to the IAEG.

During the period of my presidency the IAEG membership decreased roughly from 7,500 to 4,000 (based on numbers presented during the council meetings in 2002 and 2006). The decline of our membership during this period was partly due to the cleaning-up of our administration but partly also due to the fact that young engineering geologists did not see the benefits of becoming a member of a learned society. The IAEG is not unique in this aspect: our sister societies (the ISRM and ISSMGE) experienced the same trends. Our executive committee discussed this issue time and again, and tried to develop activities to increase the attractiveness of the IAEG to our younger colleagues. The main activities targeted at reaching this goal were: 1) the startup of a website, 2) the improvement of the impact of the IAEG bulletin by acquiring a position on the list of Science Citation Index, and 3) especially for our younger colleagues in developing countries, we initiated a support fund to enable them to participate in our international conferences with considerable support for travelling and for a reduced participation fee. In all three issues we invested parts of the annual IAEG income. Furthermore we modified the procedure for the Richard Wolters Prize to encourage young engineering geologists to participate with an important role in our international conferences.

An important issue during my presidency, and before and after it,

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was the work of the commissions. Despite the hard work of Fred Baynes, who prepared an important report for the council on the issue and reminded our members by letters, emails and by his interventions during council meetings, only two or three commissions produced tangible success. During the council meetings there were strongly stated intentions to improve the commissions' activities, but soon after those meetings everybody had so much other work to do that all promises were forgotten.

I see it as an important task for our Association to honor outstanding achievements of our members. Special occasions during the time of my presidency were the presentation of the Hans Cloos Medal to John Knill (UK) in 2002, Vincenzo Cotecchia (Italy) in 2004 and Robert Schuster (USA) in 2006 and the Richard Wolters Prize to Atiye Tuğrul (Turkey) in 2002, Hyeong Park (Korea) in 2004 and Yanjung Shang (China) in 2006. In Nottingham we honored Asher Shadmon with honorary membership of the IAEG. He was the IAEG's first president from 1964 to 1968 and for many decades chairman of our commission on building stones.

From among a number of international travels to national groups I recall specially my visits to Vienna in 1999 to give a new start to the Austrian national group, to Toronto in May 2005 to discuss closer collaboration with our North American national groups and the recognition of the AEG as the IAEG national group of the United States. The meeting in Toronto was also attended from the IAEG side by our vice president for northern America, Jacques Locat, our past presidents Owen White and Paul Marinos as well as by our former vice president for northern America, Dick Gray. It resulted in a memorandum of understanding defining the relationship between the IAEG and AEG and the rights for the members of both organisations to participate in the activities of the other. In October 2007, I visited Carlos Delgado in Madrid to discuss with the board of the Spanish national group AEGAIN the preparations for the 2008 European regional conference of the IAEG. Finally I was invited for a long trip to China to deliver a number of lectures in Beijing and Chengdu and an interesting visit to hydroelectric projects in the Himalayas. This visit resulted in closer connections with the State Key Laboratory for Geohazard Prevention and Geo-environmental Protection at Chengdu University of Technology, which led after my presidency to a visiting professorship for many years at this prestigious institution.



Niek Rengers with the recipients of the IAEG awards in 2004, Hyeong-Dong (Richard Wolters Prize) and Vincenzo Cotecchia (Hans Cloos Medal)



FRED BAYNES:

President from 2006 to 2010

BSc Geology from Bristol University (UK); MSc Engineering Geology from Imperial College (UK); PhD Engineering Geology from Newcastle upon Tyne University (UK); Independent Consultant Engineering Geologist based in Australia since 1980; Member Australian Geomechanics Society; Fellow of Geological Society of London; Chartered Professional Geologist; Chartered Professional Engineer. In 2006 at the IAEG congress in Nottingham (UK), UK, I was elected president of the IAEG and assumed office in January 2007. During the course of my presidency I found that the collective wisdom of the executive committee and the council was invaluable in guiding the IAEG through a period when declining membership, the increasing age of members and a general lack of engagement by members in the endeavours of the

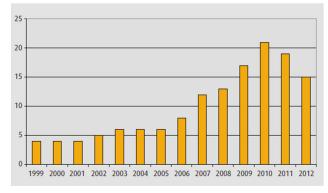


Association meant that some difficult decisions had to be made.

During these years the executive committee consisted of Niek Rengers (the immediate past president), Michel Deveughèle and Sébastien Dupray (secretaries general), Pierre Pothérat (treasurer), Philip Paige-Green (vice president for Africa), Faquan Wu (vice president for Asia), Alan Moon (vice president for Australasia), Scott Burns (vice president for North America), Francisco Nogueira De Jorge (vice president for South America), and Carlos Delgado and Daniel Morfeldt (vice presidents for Europe).

Throughout my term of office, I travelled extensively and met with IAEG members from around the world, which gave me valuable insights into the needs of our members. I also met with the past president, the secretary general and the treasurer once a year in Paris, in addition to the annual meetings of the executive committee and council held in the USA in 2007 (when Sébastien Dupray took over as secretary general), Spain in 2008, China in 2009 and New Zealand in 2010. In addition to the IAEG meetings I was fortunate to travel to Korea in 2008 to attend the 6th Asian regional conference and to South African in 2009 to attend the "Problem soils" seminar and to give talks in Johannesburg, Durban and Capetown. I also visited Brazil to attend the 12th Congresso Brasileiro de Geologia de Engenharia (CBGE) regional congress.

Before becoming president in 2007, I had previously held the office of vice president for Australia since 2002. During those earlier years I had reviewed the workings of the IAEG commissions and concluded that they were not especially productive. However I was of the opinion that the IAEG commissions were the 'technical engines' of the Association and provided feedstock for the bulletin and meetings. Consequently, during my presidency I worked to increase the number of commissions, as the graph shows.



The number of IAEG commissions from 1999 to 2012 (Fred Baynes)



Fred Baynes with Ann Williams (VP for Australasia) during the field trip organised for Euroengeo in Madrid (Spain) in 2008

Unfortunately, despite the fact that many more commissions were created, they remained unproductive, mainly because IAEG members had difficulty allocating time to such activities.

In 2009, I made a presidential decision, in collaboration with the editor Brian Hawkins, to remove the French abstract from the IAEG bulletin. Our intention was to include an English abstract, and an abstract in a language chosen by the author, in the electronic version of the paper instead. This change was debated at length by the executive committee and my decision was overturned by council in Chengdu (China) later that year.

Each year of my presidency I attended meetings of FedIGS and became increasingly concerned that the developing organisation was not serving the interests of the ordinary members. This view was also held by the Presidents of the ISSMGE and the ISRM and together we decided that a smaller, less powerful, FedIGS was needed. Our proposal was put forward and agreed during an extraordinary meeting of FedIGS in March 2010.

In my last year of presidency I attempted to develop a consensus within my executive regarding the changes that were needed to modernise the IAEG and how we might improve the management of our Association and the timely, cost effective delivery of services to the members. A 'modernisation plan' was developed and handed-over for consideration by the incoming executive committee during our congress in Auckland (New Zealand) in 2010.

CARLOS DELGADO:

President from 2010 to 2014

Graduate in Civil Engineering from the Madrid Polytechnic University (UPM), postgraduate degree from IESE (Barcelona) and Doctorate in Civil Engineering from UPM; Several years working for the Spanish State Research Department for Roads; Joined the RODIO group and was CEO from 1985 to 1994; Chairman of the civil engineering branch of the San Jose Construction Group from 1995 to 1999; Professor of Engineering Geology at Madrid Polytechnic University since 1994; Dean of the Civil Engineering School in Madrid; Deputy President of the European Foundation Association; President of the AEGAIN.

Gold Medal from UPM; Socio de Mérito de la Asociación Técnica de la Carretera. I was elected president of the IAEG in Auckland (New Zealand), after having been vice president for Europe during the previous elective period.

I was well aware of the problems that had arisen in previous periods regarding the decreasing number of associates and right from the beginning of my mandate I devoted my efforts towards changing this decline and developing a plan to attract new members. I urged the



Association's vice presidents to travel and visit their geographical areas and to create new national groups. In this endeavour, I counted on the invaluable help of the new secretary general Faquan Wu and his team, and we are now starting to see an increase in this respect.

Under my supervision, the secretariat was transferred from Paris (France) to Beijing (China). A meeting was held in Paris in January 2011 and copies of the Association's archives were sent to the secretariat offices; the original documents remain in Paris. I would like to remark on the invaluable help of the past secretary general, Sébastien Dupray, with this transfer.

With the help of Faquan Wu, a survey was carried out regarding the main expectations of IAEG members, the results of which have helped us to envisage and define a new orientation for the work of our Association.

Another of my priorities has been to improve communications through consolidation of the website and growth of the bulletin, which was a particular area of focus. Our objective was to increase the citation index and the numbers of papers published annually, whilst at the same time maintaining a high standard of papers. After the 2012 council meeting in Banff (Canada) I contacted Martin Culshaw and he accepted the new job as editor-in-chief of the bulletin. He took up the post a few months later and has worked with much enthusiasm, which is already bearing fruit.

The website, which is such an important window for our Association and is managed by Giorgio Lollino, has seen an increased number of visits.

During my period in office I enjoyed close collaboration with the

treasurer, Pierre Potherat, who kept our finances in good health and prepared an orderly transition for his replacement after retirement. As a tribute to the memory of Marcel Arnould who passed away during the first year of my presidency, I suggested and strongly supported the creation of a Marcel Arnould medal in recognition of the outstanding merits of IAEG members devoted to the promotion of the development of our Association, as Marcel had been. The suggestion was approved at the 2012 council meeting and will be awarded every two years, starting in 2014. A slight modification of our statutes was proposed by the French national group and implemented to award the Hans Cloos Medal for scientific merits and the Marcel Arnould Medal for outstanding services.

In 2012, I had the pleasure of presenting the Hans Cloos Medal to Victor Osipov and the Richard Wolters Prize to Haris Saroglou in Banff (Canada).

As president of the IAEG, I travelled frequently to support our national groups at their symposiums and meetings, and I kept in regular contact with the Association's vice presidents to discuss pending matters. I also promoted symposiums including: Moscow 2011, Bangalore 2012, Banff 2012, Shanghai 2012 and Beijing 2013; each with a focus on different aspects of engineering geology.

The 2014 congress in Turin (Italy) sees the results of all our efforts, with a large number of attendees, and confirms the well-being of our Association. The congress coincides with the 50th anniversary of the IAEG, which was founded in 1964. To commemorate and celebrate this half a century, the Association has produced this book to provide a reflection on the past, present and future of the Association. The book explains our history from the early founders, scientists and professionals who dedicated their efforts to develop and expand the IAEG, thus consolidating engineering geology as a



A field visit in Romania in 2010, with Kiril Angelof (left) and Cristian Marunteanu (far right) and Giorgio Lollino

respected discipline with an important role within the earth sciences, to the present day. The book has been written through the enthusiastic collaboration and dedication of a small group of editors, with the support of many of our members, who have all dedicated many hours of their time to write and correct this valuable record of our history, and I am extremely grateful to them for all their efforts.

I would like to mention especially the past presidents Ricardo Oliveira and Paul Marinos, and the secretaries general Sébastien Dupray and Faquan Wu among many others.

Finally, thank you to my two assistants during my period as president, namely Juan Ramón Balboa and Fernando Silió Martínez.

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FAQUAN WU:

Secretary General from 2010 Till Now

Doctor and Professor of engineering geology in 1992 and 1996 respectively at the Institute of Geology and Geophysics of the Chinese Academy of Sciences in Beijing; IAEG vice president for Asia from 2007 to 2010. As the first secretary general from outside Europe in IAEG history, I have devoted my attention to the operations of the IAEG since the handover of the secretariat from France to China in December 2010.

The main focus of my efforts has been on improving communication mechanisms within the IAEG community through regular distribution of the newsletter, enhanced information collection, a web survey to gather member



feedback and ensuring people receive quick replies to emails sent to executive committee members, chairpersons of commissions and national groups. I have also improved connections between the IAEG, the IUGS and sister societies through information exchange and by attending their meetings and I have encouraged and supported the activities of commissions and national groups by helping them to apply and organise international activities. As secretary general I have helped to set up three IAEG commissions in China including "Neo-tectonics and geohazards", "Structure and behavior of soil and rockmass" and "Marine engineering geology"; all of which are now very active in the IAEG community. Finally, I have been involved in establishing the IAEG Hong Kong (SAR) regional group.

To promote the activity of the IAEG I have attended academic meetings in many countries including Spain, Russia, France, Australia, Italy, Portugal, India, and Vietnam. In December 2012, at Hue in Vietnam, I met with the chairmen and secretaries from five Asian national groups and discussed the developing strategy of the IAEG. Through activities such as these I have made lots of lifetime friends in the international community of engineering geology.

For the operation of the secretariat, I work in a team of five people including Ning Liang, Shengwen Qi, Yuhuan Song, Ying Liu and myself. I have adopted a new mode of working to support IAEG operations by inviting some institutions as co-supporting units: the "China JK Institute of Engineering Investigation and Design" and the "Institute of Geo-mechanics, Chinese Academy of Geological Sciences".

To promote the development of engineering geology and the IAEG, and to stimulate the activity of commissions, I have conducted annual web surveys of IAEG members since 2012 to

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Faquan with the project team for this ''IAEG: 50 years'' book in Madrid (Spain) in 2014, from left to right: Paul Marinos, Sébastien Dupray, Carlos Delgado, Ricardo Oliveira, Marianne Copeland and Ning Liang. Photo courtesy of Fernando Silió Martínez



Faquan with Fernando Silió Martínez during one of the working meetings for this "IAEG: 50 years" book at the Civil Engineering School of the Technical University of Madrid (UPM), Madrid (Spain) in 2014

understand what are the issues of most concern with regards to the discipline of engineering geology and the Association. Recently, I have been promoting the recruitment of corporate members and trying to establish a platform for their information exchange. To promote IAEG education and training I have recommended a selection of universities and institutes to provide an IAEG education base.

In 2013, I proposed the IAEG International Research Programme and IAEG Science Technology Award at the IAEG council meeting and we are now collecting recommendations for approval by the council. On behalf of the Chinese national group, and together with members of commission C29 and the Chinese Academy of Sciences, I successfully organised the IAEG 2013 international symposium and the 9th Asian regional conference of engineering geology and the environment in Beijing (China) in 2013. Eight outstanding, world class engineering geologists gave keynote lectures, and Carlos Delgado, the president of the IAEG, gave a speech on promoting the development of the IAEG and engineering geology in the world. As an exploratory practice, a special session was arranged during the IAEG 2013 symposium to introduce a series of projects as the embryos of an IAEG international research programme.

In 2014, my objective continues to be to promote more involvement from IAEG members toward ensuring the sustainable development of both the IAEG and the discipline of engineering geology throughout the world. In support of this aim will be the IAEG congress and the 50th anniversary ceremony of the IAEG in Turin (Italy) in 2014. As secretary general, my team and I have been involved in supporting the development of this "IAEG: 50 years" book, in particular with matters concerning its printing and the collation of the photos and illustrations.

/1. NEWS OF EXECUTIVE COMMITTEE

In November, IAEG President Vassilis Marinos undertook a productive visit to Latin America, marked by significant engagements and activities. He attended the PanamGeo conference in Chile, where he co-opened the event alongside the ISSMGE President.

President Marinos also participated in roundtable discussions focusing on the roles of young professionals and women in engineering geology. Additionally, he attended the Latin America National Groups meeting with representatives from the region.

His visit continued in São Paulo, Brazil, where he engaged with the Brazilian National Group (ABGE), the second-largest National Group within IAEG. Activities included presentations on IAEG and ABGE initiatives, scientific lectures, and technical visits to Metro construction sites and a research institute laboratory.

This visit further strengthened IAEG's collaboration with the Latin American community and underscored the importance of advancing engineering geology worldwide.

1. 2nd regional conference of Latin America of IAEG, La Serena, Chile in November, 2024

On behalf of the International Association for Engineering Geology and the Environment (IAEG), we extend our deepest gratitude for the incredible success of PanamGeo2024, hosting the 2nd regional conference of Latin America of IAEG, held in the stunning setting of La Serena, Chile. This exceptional event was the result of the outstanding collaboration between IAEG and the International Society for Soil Mechanics and Geotechnical Engineering. Every aspect of PanamGeo2024 was meticulously organized, from the engaging technical sessions to the thought-provoking keynote lectures. Each meeting was a rich exchange of knowledge, showcasing groundbreaking research and fostering meaningful discussions that bridge the worlds of engineering geology and geotechnical engineering. The collaborative spirit and the quality of the scientific content were truly inspiring! The conference culminated in a remarkable field trip, offering a hands-on experience to explore Chile's unique geological landscapes and some of intriguing geohazards.

The importance of holding a regional conference on engineering geology in Latin America cannot be more emphasized. With the region's unique geological conditions, geotechnical challenges and numerous geodisasters, such an event is crucial for facilitating the exchange of knowledge and collaboration between local and international experts. PanamGeo2024 provided a platform for promoting understanding and innovation, strengthening the development of the field in Latin America and contributing to the safety and sustainability of construction projects in the region.

Special thanks to the Chile National Group of IAEG, ACHIGEO, and the Chilean Geotechnical Group of ISSMGE for their unwavering dedication and hard work. Your tireless efforts and hospitality made PanamGeo2024 an extraordinary experience for all attendees. A competent team, a family.

Apart from the several sessions in our hot topics, we had the chance the host several meetings like "Connecting the Young Professional Network and Highlighting Women's Participation in Geological Engineering". Many potential YEG (Young Engineering Geology Group) and WEG (Women in Engineering Geology) members of

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IAEG participated in the meeting.

The joint organization of engineering geology and geotechnical engineering societies is vital for our shared future, and PanamGeo2024 stands as a testament to the incredible outcomes that such collaboration can achieve. Thank you once again to all who contributed to this landmark event. Together, we advance the boundaries of our disciplines and inspire the next generation of engineering geologists in the region of Latin America! Looking forward for the 3rd Regional Conference in Latin America.



Group Photo





PANAMGEO CHILE 2024



2. President's visit to Brazilian National Group of IAEG – ABGE (ABGE - Associação Brasileira de Geologia de Engenharia e Ambiental)

I would like to extend my heartfelt thanks to the Brazilian National Group of International Association for Engineering Geology and the Environment, ABGE - Associação Brasileira de Geologia de Engenharia e Ambiental for organizing an outstanding two-day event filled with enriching technical lectures and engaging presentations on various aspects of engineering geology. The sessions covered critical topics such as civil and mining infrastructure works, geohazard analysis and remediation efforts and resilient environmental solutions.

During my visit I was thrilled to present the Executive Office's recent advancements and deliver a technical talk on the methodology for selecting TBMs, informed by a ground behavior assessment, showing numerous examples of TBM works.

I'd like to give special thanks to the dedicated and dynamic leadership team at ABGE, especially Erik Wunder - ERW Geomecânica, the Chair of ABGE, Francisco de Jorge, Vice President of IAEG for Latin America, and Maria Heloisa Barros de Oliveira Frascá, past Vice President of IAEG. Their exceptional efforts made it possible for me to visit and engage with the



ABGE members.

The strength and effectiveness of the ABGE team are commendable. Their work in advancing and promoting engineering geology across Brazil is impressive. Additionally, the Young Group of IAEG in Brazil (ABGE JOVEM) is making waves with their initiatives, and I'd like to give a shoutout to Malena D'Elia Otero and Flávio Anauate Bergonzoni for their excellent presentation on the impactful projects they are driving—a model for other young groups of IAEG to follow.

A special highlight was the technical visit on the first day to the São Paulo Metro construction site, where we were warmly welcomed by the Metro company. We are immensely grateful for their hospitality and for the excellent guidance provided by their team of engineers and geologists. We had the chance to visit the TBM (an EPB), an auxiliary tunnel excavated by conventional means and a station.

In the 2nd day, I had the chance to listen numerous presentations about the works of ABGE in Brazil. Their work and organization are really impressing. I cannot thank them enough for their hard and efficient works they have been doing for the Engineering Geology and the Environment, in Brazil but also for IAEG. A remarkable tour was then guided to the laboratories at IPT (Instituto de Pesquisas

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Tecnológicas) by Daniel Seabra Albarelli and his colleagues, where they shared their cuttingedge research and technical applications in geotechnical engineering for civil and mining projects. A huge thank you to all the members of ABGE for their dedication and warm hospitality, as well as to the ABGE Secretariat for their flawless organization and support throughout the event.







/2. 4th EUROPEAN REGIONAL CONFERENCE OF IAEG

The 4th European Regional Conference of IAEG was held in Hotel Dubrovnik Palace in Dubrovnik, Croatia on October 8-12, 2024. Over 250 participants from 50 countries, 6 continents took part in the conference. The conference was organized by the Croatian National Group of IAEG which was chaired by Ivan Kosović and Lovorka Librić.





The conference accepted 64 full papers which were published in the conference proceedings, and 91 extended abstracts were posted on the conference website which will be open source on the conference website:<u>(https:// www.euroengeo2024.com/proceedings)</u>. The conference program includes 3 keynote lectures, 3 award lectures, 13 sessions, 2 post sessions, 5 workshops, 1 round table meeting, RWP contest and 2 field trips.

Pre-Conference Functions

• **IAEG Executive Committee Meeting-** The Executive Committee meeting took place on Tuesday October 8th at the Luna Conference Room. The

board members discussed the proposals to be presented to the Council for approval the next day and listened to the reports by the representatives who were going to host upcoming events.



• **IAEG Council Meeting-**The Council meeting took place on Wednesday October 9th at 9:00-



17:30 in hybrid form. The Council listened to the reports presented by Executive Committee

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members, followed by voting and approving important proposals. The Council approved two acting VPs to serve as Vice Presidents for continental administration, and approved new establishment of two National Groups and three Commissions. The Vice President for YEG and Honorary President were elected by voting at the Council Meeting.



• Welcome Cocktail and 60th Anniversary Celebration Dinner- After the Council meeting, it was followed by a welcome cocktail in Hotel Palace Terrace by the sea and the welcome Council dinner in the evening on October 9th. The welcoming dinner started with wonderful traditional Croatian dancing while the delegates enjoyed



the food and wines. President Vassilis Marinos opened the dinner with warm welcome to the guests and gave a speech in respect of IAEG's 60th Anniversary. A commemorative video was played on the screen to show the progress, achievements and global impact of IAEG over the past 60 years.





Opening and Awarding Ceremony

The Secretary General of Croatian National Group Lovorka Librić hosted the opening ceremony and gave warm welcome to all participants at the beginning. The President of





IAEG welcomed its 60th years Anniversary, the IAEG Honorary President Prof. Ricardo Oliveira delivered a special speech in respect of IAEG's 60th Anniversary. The former ISRM President Prof. Resat Ulusay delivered congratulatory speech

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for IAEG's 60th Anniversary on behalf of Prof. Seokwon Jeon, the President of International



The President of IAEG Vassilis Marinos gave a presentation on celebration of IAEG's 60th Anniversary, introducing the rich history and accomplishments of IAEG over the 60 years





and several festivities the association initiated to celebrate the anniversary. The President also highlighted a series of promotional works within IAEG in the future.



Followed the opening ceremony, the winners selected in 2024 for prestigious IAEG awards are awarded at the ceremony. The Hans Cloos Medal winner Niek Rengers (represented by Dominique Ngan-Tillard), Marcel Arnould Medal winner Fred Baynes, Honorary Membership



Winner Resat Ulusay and Ann Williams, Paul Marinos Distinguished World Lecture Tour Winner Xuanmei Fan are invited to receive their medals and certificates at the stage presented by invited presenters.











Technical Sessions

The technical program consisted of 6 keynote lectures, 13 sessions, 2 post sessions, 5 workshops.

A total of 82 oral presentations in 13 sessions and 74 posters in 2 post sessions are presented during the 4th European Regional Conference.



Keynote Lectures

- Hans Cloos Medal 2024 Lecture Niek Rengers-Five decades of Education and Research for Engineering Geology in the Netherlands.
- Richard Wolters Prize 2022 Lecture Jennifer
 Day The important partnership of engineering geology in geomechanics and geohazards.
- Keynote Lecture Alexander Puzrin- Landslide influence zone - a hidden hazard
- Keynote Lecture-Vassilis Marinos Empowering the next generation. Reshaping the education for the engineering geologists of the future.
- Keynote Lecture-Dominique Ngan- Tillard Engineering Geology: keeping the past in mind to understand the present for a better future.
- Richard Wolters Prize 2024 Lecture Weiwei Zhu - Can 2D Fracture Outcrops Reveal 3D Percolation?

Workshops

> WS1: Guidelines for Engineering Geological



Round Table Meeting

The round table meeting was held at 17:30-19:00 on October 11th, chaired by President Vassilis Marinos. The meeting was focus on review and dissemination of IAEG Commissions outcomes. Models - C25

- WS2: Preparing a manuscript for an international scientific journal: What editors and reviewers look for- Janusz Wasowski
- WS3: Current research and developments in aggregates- C17
- WS4: Rockmass Characterization with Emphasis in Rock Slope Hazards- C38
- WS5: Structure and Behavior of Rock and Soil C29

2024 RWP Contest

The 2024 Richard Wolters Prize Contest is organized under the guidance of Jury Chair Prof. Janusz Wasowski on October 11th at 13:00-15:00. Five candidates from China, Nepal, Chinese Taipei, Greece and India took part in the contest with 10 minutes presentation and 5 minutes mandatory question session. The Jury consisted of 5 members nominated by the Executive Committee, they finally decided to award the 2024 Richard Wolters Prize winner to Dr. Weiwei Zhu nominated by China National Group.



Representatives of C4, C17, C25, C29, C35, C38 presented reports on their previous activities, research progress and outcomes, future work plan. The commissions representatives well exchanged ideas with President Vassilis on the followed Commissions works.



Closing Ceremony

At the beginning of the closing ceremony, the 2024 RWP Jury awarded 2024 Richard Wolters Prize to the recipients. The Jury chair Janusz



Wasowski presented the medal and certificate to the 2024 RWP winner Dr. Weiwei Zhu, and Jury members Fanny DESCAMPS and Francisco N de Jorge presented certificates to the two runnersup Stratis Karantanellis and Cheng-Han Lin.



Followed the 2024 Richard Wolters Prize winner Dr. Weiwei Zhu delivered the Richard Wolters Prize Lecture with the topic "Can 2D Fracture Outcrops Reveal 3D Percolation?" After the lecture, the participants actively took part in Question & Answer part with Dr. Weiwei Zhu, discussing about the research work done by Weiwei Zhu. The full video of 2024 Richard Wolters Prize Lecture could be viewed through the link: <u>https://www.youtube.com/</u> watch?v=KeQYiL5F6K8





Finall, the President Vassilis Marinos delivered closing speech to the participants, he extended sincere thanks to all delegates' participation at this completely successful event. He specially thanked the host by the organizing committee chaired by Lovorka Librić, Ivan Kosović and Meho Saša Kovačević and the working groups who have contributed to the meetings and conference. Vassilis gave an overview of celebrating festivities IAEG has taken this year in respect to 60th years anniversary of IAEG. The 4th European Regional Conference of IAEG is ended with outstanding success on multiple fronts, it's incredibly proud of all the work that has been accomplished.





Group Photo of the IAEG Council

/3. SPECIAL SPEECHES FOR THE 60th ANNIVERSARY OF IAEG

Welcome Speech for IAEG 60th Anniversary by IAEG Honorary President Ricardo Oliveira



Ricardo Oliveira at the Opening Ceremony of EURO ENGEO 2024

My first involvement with IAEG was in early 60's when I started my professional career at the Geotechnical Department of LNEC (National Civil Engineering Laboratory) of Portugal. My first personal contacts with IAEG activities occurred during the attendance of the 1st International Congress, in Paris, in 1970.

At that time already existed in Portugal a Group for Soil Mechanics and Rock Mechanics. As its member, I proposed to present the candidature of Portugal to the International Association of Engineering Geology in the Council meeting at the occasion of the International Geological Congress, in Montreal, in 1972. Then, the Portuguese Group changed its name to Portuguese Geotechnical Society (SPG), which represents Portugal, since then, in all International Societies and Associations of the Geotechnical area.

My research activities in the first years were in the area of applied geology to civil engineering and have been very much supported by several scientific books published by many eminent authors in the 1950 decade (exception for Maurice Lugeon 1933 -Barrages et Geology) and Karl Terzaghi 1943-Theoretical Soil Mechanics) as well as reports of several large disasters, as it is the case of the rupture of the Malpasset Dam, in France, in 1979 and the overtopping of Vajont dam, in1963 in Italy, as a result of a large landslide of the Toc Mountain in the reservoir . At the end of this period which followed the 2nd World War, when engineering construction and rehabilitation, mainly in Europe, was supported

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to a large scale by the Marshall Plan funds, I obtained the degree of Specialist in Engineering Geology in 1965(PhD level). After this early period, I extended my activities and research to areas of Engineering Geology, Soil Mechanics and Rock Mechanics related to Dams, Slopes, Tunnels, Caverns, Roads and Railroads, Bridges, Natural Hazards and Land use planning. In 1983 I obtained the degree of Research Director in Geo-Engineering (Full Professor level) and became LNEC Deputy Director for 7 years.

Simultaneously, I started in 1968 a Consultant Career at COBA, an important Portuguese Civil Engineering Consulting Company, working all over the world, first being responsible for its Geotechnical sector and later, from 1973 to 1988, as Director and from 1988 to 2015 as President of the Group.

At same time, I developed an academic career at UNL (New University of Lisbon) from 1974 until 2008, having organized in 1975 the first graduate courses offered in Portugal in the Geotechnical area (MSc courses in Engineering Geology and in Soil Mechanics).

As a result of the continuous development of my technical and scientific activity, I became an active member of IAEG, working in Commissions, presenting key-note Lectures, submitting scientific papers to international events and to the Bulletin and contributing to Newsletters.

Since 1970 to now, I kept a continuous cooperation with IAEG, attending all the 14 International Congresses and respective Council meetings, including the last one in Chengdu, in 2023. I have also attended all the IAEG European Regional Congresses, the first one in Liège (2004) the second in Madrid (2008), and the third in Athens (2021). The fourth is this one in Dubrovnik, about to start. I have also attended many International Symposia and other IAEG Conferences.

I have been co-author and co-editor of the Memorial Book "50 Years of the International Association of Engineering Geology and the Environment" published in 2014. This book reports in detail all the relevant aspects of the first 50 years of IAEG (1964-2014) and it was distributed to all participants in the 12th International Congress, in Torino, 2014.

I have also been connected to the other International Geotechnical Societies and their activities, having been elected Secretary General of the ISRM from 1968 to 1974 and I am also member of the International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE).

The Portuguese National Group became progressively involved in the IAEG activities, organizing very successful international events, namely the International Symposium on Engineering Geology and Underground Construction in 1983 and the 7th International Congress of IAEG in 1994, both in Lisbon, this one attended by about 700 participants.

I was elected Vice President of IAEG in Argentina in 1986, President in Amsterdam in 1990 and I have been elected IAEG Honorary President in 2018, in USA.

I received several scientific prizes along my career, the most rewarding being the IAEG Hans Cloos Medal in 1996, the Manuel Rocha Research Prize in 2002 and the degree of Doctor Honoris Causa by the Complutense University of Madrid in 1998. I have been elected effective member of the Portuguese Academy of Engineering in 1996 and of the Brazilian Academy of Engineering in 2015.

As a result of my continuous commitment with IAEG along those years and the close relationship with several National Groups, I have been invited by them to transmit my expertise resulted from the experiences of my work. I gave Lectures in many countries, namely by invitation of those National Groups, worth mentioning Soviet Union (Russia, Kazakhstan, Tajikistan and Georgia) in 1983; Cross Canada Lecture Tour (from Halifax to Vancouver) in 1990; MSc Course in Geological Engineering

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at the Complutense University of Madrid for 10 years (1990-2000), Brazil (Rio de Janeiro 1972 and São Paulo 1973) and China (Nanjing 1987). For that purpose, I travelled a lot around the world visiting 59 countries (28 from Europe, 12 from Asia, 12 from Africa, 2 from Australasia, 3 from Latin America and 2 from North América. Most of these visits were connected to my consultancy related to engineering projects. and teaching. As consequence of such travel over the years, I made many friends since the very beginning of IAEG (as Shadmon, Zaruba and Sergeev) until today. Many of these friends have already passed away, but they keep alive in my memory, namely Marcel Arnould and specially Paul Marinos.

In this last decade (2014 to 2024) IAEG experienced important evolutions which deserve to be mentioned in this short speech. A new and very complete Website was established in Torino by Giorgio Lollino and Colleagues. The YEG group increased significantly and has organized several events in order to expand the activities of the Group. In the last Council meeting in Chengdu, it has been approved the establishment of a Women in Engineering Geology Group in order to promote the important role of our Women colleagues in the past and in the development of the IAEG in the future. In this decade is also important to highlight the effort done by the Executive Committees of the Association to increase the number of National Groups (70) and Individual members (now about 5.500).

A lot is expected from engineering geological activities in the future, in order to improve the

characterization of the ground related to the design and construction of large engineering structures, the stability of natural slopes and the establishment the best possible land use in relation with the Environment. This implies the use of more sophisticated equipment for mechanical and geophysical site investigations and laboratory testing of the ground.

This information will allow the improvement of three dimensional geological and geotechnical models as well as the calculation models progressively more sophisticated as result of the evolution of the respective computer analytical tools.

Continuous improvements are expected in the monitoring of the ground stability of geotechnical and mining structures by the use of more sophisticated equipment (Drones, Laser scanning, Radar, Satellites, GPS).

Finally, it is already possible to see increasing cooperation between Academia and Industry related to research programs established in Universities and Polytechnic Institutes. The formula is the establishment of research contracts concerning subjects of interest for Enterprises and stimulate their staff to prepare MSc and PhD theses. Another way is the possibility of experienced staff from industry participate parttime in Academia, in order to contribute with their experience to the valorization of teaching in the respective courses.

> Ricardo Oliveira In Dubrovnik

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Congratulatory Speech for IAEG 60th Anniversary by Prof. Resat Ulusay from ISRM



Resat Ulusay at the Opening Ceremony of EURO ENGEO 2024

Distinguished Guests, Esteemed Colleagues, and Friends of the IAEG,

On behalf of the International Society for Rock Mechanics and Rock Engineering (ISRM), I extend my congratulations to the International Association for Engineering Geology and the Environment (IAEG) on its 60th anniversary.

Under the FedIGS umbrella, ISRM, as a sister society, shares various goals and activities with IAEG and maintains a collaborative relationship. I am honored and grateful for the opportunity to deliver this congratulatory message at the 60th Anniversary Symposium of IAEG.

Founded in 1964, IAEG aims to advance the field of engineering geology through the research and technical activities of its members, improve training and education in engineering geology, and collect, evaluate, and disseminate relevant results. Over the past 60 years, IAEG has made significant contributions to the fields of engineering geology, environmental protection, and geotechnics. I would like to express my respect and congratulations to President Prof. Vassilis Marinos, the executive committee members, and all the members of IAEG.

The history of IAEG is not just the history of an organization but also a record of academic and technical advancements that have deepened our understanding of fundamental processes related to Earth's geological formations and changes. It is a history of efforts to study the interactions between nature and humans, ensuring the safety and sustainability of human life.

ISRM has had the privilege of collaborating with IAEG for a long time. Through this partnership, we have enhanced our understanding of geological phenomena and applied this knowledge to engineering practices, improving infrastructure, environmental protection, and social safety. Our joint efforts have materialized through the organization of joint academic conferences and activities under the Joint Technical Committee. The interdisciplinary cooperation between rock mechanics and engineering geology will continue to expand, based on the premise that sustainable development cannot be achieved without a deep understanding of geology and

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As we reflect on the achievements of the past 60 years, we recognize that the future presents challenges and tasks that we must address. Climate change, energy transition, digital transformation, sustainable resource development, and urbanization present clear challenges and opportunities. I am confident that through interdisciplinary collaboration, we can foster the next generation of professionals and achieve innovative advancements to meet these challenges. The achievements of the next 60 years are highly anticipated.

IAEG has been publishing its professional academic journal, Bulletin of Engineering Geology and the Environment since 1998, and I believe the organization has been very successful in its governance by addressing EDI (Equity, Diversity, and Inclusion) issues through internal groups such as the Young Engineering Geologists' (YEG) group and Women in Engineering Geology (WEG), which are well acknowledged from our academic community.

I understand that following events in the UK in June and Brazil in September, a commemorative event of 60th anniversary will be held in Belgium in November. I hope that these events will serve to share IAEG's accomplishments over the past years and foster further opportunities in both engineering geology and rock mechanics, leading us all to a better future.

Once again, I sincerely congratulate IAEG on its 60th anniversary and wish for its continued prosperity and great success. Thank you very much.

Prof. Seokwon Jeon

ISRM President

(This Welcome Speech was prepared by Seokwon Jeon, President of ISRM,

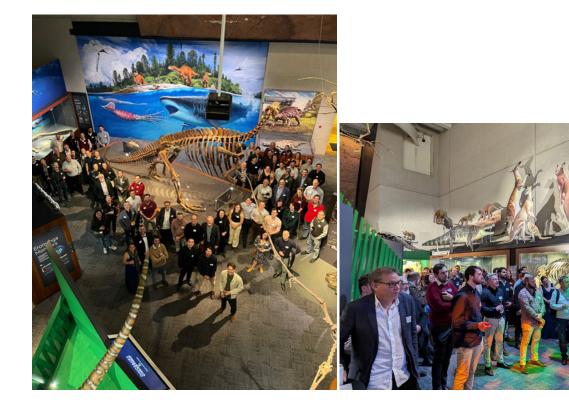
and delivered by Prof. Resat Ulusay)

/4. 60th ANNIVERSARY CELEBRATION FROM NATIONAL GROUPS

AUSTRALIA

As part of IAEG's 60th anniversary celebrations, a number of events were planned around Australia. These include:

- Central Coast NSW engineering geology field trip (April 2024) – organised by the AGS Newcastle Chapter
- Engineering geology field trip of Perth (April 2024) organised by the AGS WA Chapter
- Social events with a key note speech by Ann
 Williams in Melbourne and Brisbane during July
 organised by the local Chapters
- Engineering geology field trip to the Blue Mountains (September) – Organised by the Sydney Chapter
- Special edition of the AGS Journal with an engineering geology theme – scheduled for publication in September 2024.



BANGLADESH

Bangladesh National Group commemorated the 60th Anniversary of IAEG with an engaging and vibrant event.

The celebration featured the official inauguration of the IAEG_YEG_JU Chapter for the 2024–2025 term, marking a new milestone for the group. The program included a CV-making workshop and a quiz competition, fostering skill development and interactive learning among participants. The event concluded with a prize and certificate distribution ceremony and a special announcement of an upcoming national event. The Chair of the Department of Geological Sciences delivered an inspiring opening speech, and esteemed faculty members actively participated in the program. Their presence, along with the enthusiasm of students and members of the IAEG Bangladesh National Group, made the event a resounding success.

This celebration showcased the growing engagement of young engineering geologists in Bangladesh and reflected the spirit of innovation and collaboration that IAEG has championed for six decades.

Stay tuned for updates on future events!





BRAZIL

The Brazilian National Group celebrated the 60th Anniversary of IAEG on November 18th and 19th in the city of São Paulo and was intended to join in the celebrations of IAEG's 60th anniversary along with ABGE's 56th anniversary.

On Monday 18th, we were welcomed by the Metrô-SP (São Paulo Subway). The morning was the time for institutional and technical presentations. Metrô-SP presented its history, the challenges and the knowledge gathered about the underground space of São Paulo City. ABGE (Brazil NG) presented the challenges of urban occupation of São Paulo City and the current and future Brazilian projects for infrastructure and mining. Prof. Dr. Vassilis Marinos introduced IAEG and gave us a lecture on TBM selection process incorporating rock mass behavior assessment. In the afternoon of the same day, we visited the construction site of Metro Line 2, which is being built using TBM.



On Tuesday 19th, the gathering took place at the São Paulo Institute of Technological Research

- IPT/SP. We had the opportunity to introduce ABGE to Dr. Vassilis Marinos and show him a little bit of our intense work to integrate professionals spread across a country with continental dimensions. Then, we visited two important rock mechanics and soil mechanics laboratories at IPT.

We'd like to thank Metrô-SP and IPT for having us, and also we thank Dr. Vassilis Marinos very much for the visit and the willingness to listen to a brief summary of the context of Engineering Geology and Environmental Geology in Brazil.

ABGE - Associação Brasileira de Geologia de Engenharia e Ambiental brings together more than 560 members but the important thing is that we are part of an even larger global community, the International Association for Engineering Geology and the Environment.





CHINA

The China NG has organized celebration activities for IAEG 60th Anniversary. The Vice President of IAEG for Asia, Secretary General of China NG Prof. Shengwen Qi delivered special speech with respect to IAGE's 60th Anniversary at the congress. He introduced the history of IAEG and highlighted the milestones in IAEG's history and the close connection of China NG and IAEG. The video of IAGE's 60th Anniversary was displayed during the congress and China NG also arranged souvenir distribution to the NG members in celebration of IAGE's 60th Anniversary. The Vice President of IAEG for Asia, Secretary General of China NG Prof. Shengwen Qi delivered introduction report with respect to IAGE's 60th Anniversary respectively.



Prof. Shengwen Qi delivered special speech to IAGE's 60th Anniversary

COSTA RICA

In celebration of the 60th anniversary of the IAEG, the Costa Rican Committee on Geological and Environmental Engineering (COCIGA) together with the Chilean Geological Association (ACHIGEO), the Peruvian Group of the IAEG, and the Bolivian Committee on Geological and Environmental Engineering (COBIGA) are organizing a series of webinars

GREECE

It was a great night for the Greek Committee of Engineering Geology!

to present the research, problems and solutions that Latin American professionals face in the field of geological engineering.

On November 22nd, Costa Rica NG inaugurated with the participation of the Peruvian group. The rest of the webinars are organized on November 26th, December 3rd, and December 12th.

On the occasion of the 60th anniversary of the International Association for Engineering

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Geology and the Environment (IAEG), we hosted an evening session at the School of Civil Engineering of the National Technical University of Athens (NTUA), welcoming many members of our committee, colleagues and friends as well as many young professionals and students.

We were honoured by the presence of the Dean of the School of Civil Engineering of the NTUA, Professor Eleni Vlahogianni and the Deputy Dean of the School of Mining and Metallurgical Engineering of the NTUA, Professor Spyros Papaefthymiou.

Our guests of honor included the President of International Association for Engineering Geology and the Environment, Associate Professor Vassilios Marinos, the President of the Geological Society of Greece, Dr. Athanassios Ganas, the Managing Director of the Hellenic Survey of Geology & Mineral Exploration (H. S. G. M.E.), Mr. Dionysios Gkoutis and the Vice President of the Association of Greek Geologists Mr. Evangelos Spyridonos.

We welcomed representatives of faculties of Engineering Geology from most major Greek institutes. Professor Maria Stavropoulou from the National and Kapodistrian University of Athens, Associate Professor George Papathanassiou from the Aristotle University of Thessaloniki, Associate Professor Nikolaos Depountis from the University of Patras, Professor Constantinos Loupasakis from the School of Mining and Metallurgical Engineering of the NTUA and Associate Professor Vassilios Marinos from the School of Civil Engineering of the NTUA.

The centrepiece of the evening was the awarding of honorary membership status to five most important members of our committee in recognition of their continuous and important contribution in the field of Engineering Geology and our mission. Professor Emeritus Georgios Koukis, Associate Professor (ret.) Dimitrios Rozos, Professor Emeritus Nikolaos Sabatakakis, Professor Emeritus Georgios Tsiambaos and Professor Emeritus Vassilios Christaras.

Two anniversary speeches concluded the session. "60 years of IAEG contribution to Engineering Geology and the vision for the future" by the President of IAEG, Associate Professor Vassilios Marinos and "The role of Engineering Geology in the design and construction of dams in Greece" by Engineering Geologist MSc, Dimosthenis Ntalias.

We extend our sincere gratitude to our sponsors. Edafomichaniki S.A. and Tasos Basdekis -Structures and Geotechnics and George Kritsotakis - Geomeleti and Katsoularis Tassos.

The evening closed with a dinner party in the company of colleagues and friends! Until our next gathering!











NEPAL

Nepal successfully organized a major event to celebrate the 60th anniversary of IAEG. As part of the 60th anniversary celebration of IAEG, the 2nd National Seminar on Engineering Geology featured a special video presentation highlighting the history, achievements, and global impact of IAEG over the past six decades. The video served as a reminder of the enduring importance of engineering geology in addressing the world's most pressing environmental and geotechnical challenges. Looking ahead, the seminar also offered a glimpse into future international collaborations. A teaser video for the **15th Asian Regional Conference**, scheduled to be held in Kathmandu from November 27-29, 2025, was released. This upcoming conference is expected to bring together leading experts in engineering geology from across Asia and beyond to discuss emerging trends, challenges, and innovations in the field.

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NEW ZEALAND

The IAEG 60th Anniversary was celebrated in New Zealand, with approximately 100 attendees. The event featured an insightful and relevant talk by Professor Mark Jaksa, who shared his vision for the next sixty years. Among other topics, he discussed his groundbreaking research on ground improvement on the moon, aimed at facilitating the development of robust moon bases.



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NIGERIA

The IAEG 60th Anniversary was celebrated in grand style during the conference with the cutting of the IAEG 60th Anniversary cake by

the President and the Council Members of the Nigeria National Group.



The IAEG 60th Anniversary Cake and with the Council members of the Nigeria National Group during the conference



The IAEG 60th Anniversary Cake with LOC and Young Engineering Geologist YEG members at the Conference

/5. ANNOUNCEMENTS

DE L'INGENIEUR VIRONNEMENT

Announcement of 2024 Honorary President

Dear members of IAEG community,

We are very pleased to announce that the proposal of appointing Prof. Scott Burns from the USA National Group as the Honorary President of IAEG has been approved at the Council Meeting held on October 9th, 2024 in Dubrovnik, Croatia, considering his extraordinary and long-term merits and for the prosperity and development of IAEG.

Congratulations to Professor Scott Burns and the USA National Group!

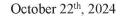
Best regards,

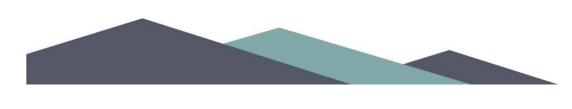
Marinos

President Vassilis Marinos

Faguen Wer

Secretary General Faquan Wu





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ND THE ENVIRONMENT SOCIATION INTERNATIONALE DE EOLOGIE DE L'INGENIEUR

Announcement of 2024 Richard Wolters Prize Recipients

Dear Colleagues,

I am very pleased to announce that the winner of 2024 Richard Wolters Prize is awarded to Dr. Weiwei Zhu nominated by the Chinese National Group and runner-ups have been awarded to Dr. Stratis Karantanellis nominated by the Greece National Group and Dr. Cheng-Han Lin nominated by the Chinese Taipei Regional Group, for their meritorious scientific achievements and contributions to engineering geology.

Congratulations to the recipients and their National/Regional Groups!

Best Regards,

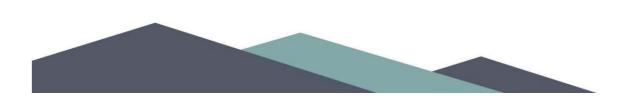
Marinos

President Vassilis Marinos

December 17th, 2024

Faguen Wer

Secretary General Faquan Wu



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Appointment Letter of the New Established National Group

The Council of International Association for Engineering Geology and the Environment (IAEG) has approved the proposal to establish the Cambodian National Group with full votes at the Council meeting held on October 9th, 2024 in Dubrovnik, Croatia, during the 4th IAEG European Regional Conference. We are officially announcing that the Cambodian National Group has been established, Tola SREU is appointed as the President and Sotheara KONG as the Secretary General of Cambodian National Group.

Congratulations to this new National Group!

Best Regards,

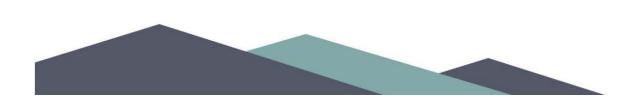
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President Vassilis Marinos

Faguen Wer

Secretary General Faquan Wu

December 17th, 2024





Appointment Letter of the New Established National Group

The Council of International Association for Engineering Geology and the Environment (IAEG) has approved the proposal to establish the Moroccan National Group with full votes at the Council meeting held on October 9th, 2024 in Dubrovnik, Croatia, during the 4th IAEG European Regional Conference. We are officially announcing that the Moroccan National Group has been established, Sahar EL KASMI is appointed as the President and Boubker BOUKILI as the Secretary General of Moroccan National Group.

Congratulations to this new National Group!

Best Regards,

V.Marinos

President Vassilis Marinos

Faguen Wer

Secretary General Faquan Wu

December 17th, 2024



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AND THE ENVIRON

Appointment Letter of the New Established Commission No. 40

The IAEG Council has approved the proposal on establishing the new IAEG Commission No. 40 "Engineering Geomechanics for Rock Mass" at the Council Meeting which was held on October 9th, 2024, in Dubrovnik, Croatia, during the 4th IAEG European Regional Conference. The appointment is decided as below:

Prof. Faquan Wu is appointed as the president and Prof. Han Bao as secretary general of IAEG Commission No. 40 Engineering Geomechanics for Rock Mass from October 10th, 2024. The Commission will focus on developing the theory to solve eng-geological problems providing more reliable theory for engineering geomechanics and promoting digital engineering geomechanics to make Engineering Geology be digitized and intelligent.

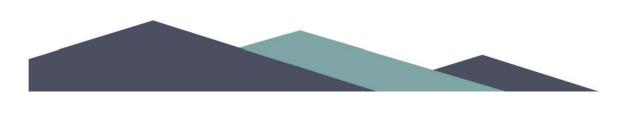
V.Marinos

President Vassilis Marinos

Faquan Wa

Secretary General Faquan Wu

October 24th, 2024



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NTERNATIONAL ASSOCIATION FOR ENGINEERING GEOLOGY AND THE ENVIRONMENT ASSOCIATION INTERNATIONALE DE GEOLOGIE DE L'INGENIEUR ET DE L'ENVIRONNEMENT

Appointment Letter of the New Established Commission No. 41

The IAEG Council has approved the proposal on establishing the new IAEG Commission No. 41 "Cascading Geohazards" at the Council Meeting which was held on October 9th, 2024, in Dubrovnik, Croatia, during the 4th IAEG European Regional Conference. The appointment is decided as below:

Prof. Zhenming Shi is appointed as the president and Prof. Ming Peng as secretary general of IAEG Commission No. 41 "Cascading Geohazards" from October 10th, 2024. The Commission will focus on advance research of analyzing mechanisms, developing risk mitigation strategies and fostering international collaboration in the study for cascading Geohazards.

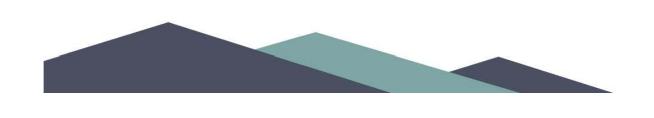
V.Marinos

President Vassilis Marinos

October 24th, 2024

Faquan Wa

Secretary General Faquan Wu



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Appointment Letter of the New Established Commission No.42

The IAEG Council has approved the proposal on establishing the new IAEG Commission No.42 "Engineering Geology for the sustainable conservation of ancient monuments and archaeologic sites" at the Council Meeting which was held on October 9th, 2024, in Dubrovnik, Croatia, during the 4th IAEG European Regional Conference. The appointment is decided as below:

Prof. Claudio Margottini is appointed as the president of IAEG Commission No.42 "Engineering Geology for the sustainable conservation of ancient monuments and archaeologic sites" from December 17th, 2024. The Commission will focus on advancing the development of engineering geology and its applications in the sustainable conservation of ancient monuments and archaeological sites and providing state-of-the-art reports for selected types of monuments, compile worldwide experiences, and develop guidelines and recommendations.

Marino

President Vassilis Marinos

Faguen Wer

Secretary General Faquan Wu

December 17th, 2024



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ENGINEERING GEOLOGY AND THE ENVIRONMENT ASSOCIATION INTERNATIONALE DE SEOLOGIE DE L'INGENIEUR

Announcement of Closing Commission No.32

According to the request by Commission No.32 that they are unable to support the Commission work any more and suggest closing, the Executive Committee agreed to propose closing Commission No.32. The IAEG Council has approved the proposal of closing IAEG Commission No.32 "Engineering Geology and Rural Infrastructure" at the Council Meeting which was held on October 9th, 2024, in Dubrovnik, Croatia.

We regret to announce that Commission No.32 is closed as the date of this letter.

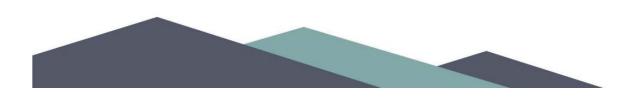
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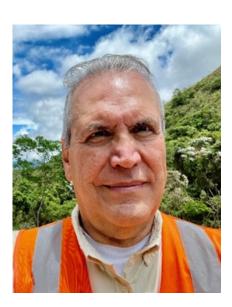
December 17th, 2024



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/6. INTRODUCTION FOR IAEG NEW-ELECTED VICE PRESIDENTS OF IAEG

Introduction of IAEG Vice President for Latin-America: Francisco de Jorge



Francisco Nogueira de Jorge is an engineering geologist with 50 years of experience in geotechnical engineering and engineering geology. He holds a bachelor's degree in Geology from the University of São Paulo; an M.Sc. in Engineering Geology and a Diploma of Membership (D.I.C.) from Imperial College of Science and Technology, University of London; and an M.Sc. in Geotechnical Engineering from the São Carlos School of Engineering, University of São Paulo, where he researched the mechanisms of reservoirinduced landslides. He also earned a Ph.D. in Engineering from the Polytechnic School of Engineering at the University of São Paulo, with a thesis that introduced a methodology and procedures for environmental performance evaluation, including environmental accounting of projects.

Throughout his career, Francisco has led numerous site investigations and managed projects involving the evaluation and design of dams, reservoirs, roadways, underground excavations, natural and man-made slopes, tailings dams, landfills, as well as geotechnical and environmental monitoring programmes for major solid waste landfills, including rehabilitation projects for municipal waste landfills. His expertise also extends to acquisition and project financing due diligence, as well as audit programmes.

Currently, as a member of an International Board of Experts, Francisco serves as a consultant in engineering geology and geotechnics, specializing in auditing the decharacterisation designs and works of upstream tailings dams, conducting dam safety evaluations and overseeing the design and implementation of reinforcement works for existing tailings dams in Southeastern Brazil.

In addition to his consulting work, Francisco lectures on "Environmental Geotechnics and Instrumentation" in the postgraduate programme at the Institute for Technological Researches (IPT) of the State of São Paulo, Brazil. He has authored or co-authored several book chapters and papers on topics including environmental engineering geology and geotechnics for infrastructure projects, stability of natural slopes, reservoirinduced landslides, runoff and surface hydrology, solid waste management, geotechnical monitoring of landfills, and the rehabilitation of aggregate quarry sites.

A dedicated contributor to his field, Francisco is an Honorary Member of the Editorial Board and served as co-editor (1987–1989) of Soils and Rocks, the International Journal of Geotechnical and Geoenvironmental Engineering. He was also a member of the Editorial Board (2007–2018) of the Bulletin of Engineering Geology and the Environment, the official journal of the IAEG.

Francisco has been actively involved with the Brazilian

Association for Engineering Geology and the Environment (ABGE), serving multiple terms as an elected member of the Council and in leadership roles, including Treasury Officer and Vice-President.

He also served as Vice-

President for South America of the IAEG from 2007 to 2010.

Outside of his professional work, Francisco is passionate about sports, particularly basketball, and is a proud former college and federation player.

Introduction of IAEG Vice President for Asia: Shengwen Qi



Qi Shengwen is a full professor at the Institute of Geology and Geophysics, Chinese Academy of Sciences. He mainly researches the seismic dynamic response of rock slope, the dynamic effect of rock mass structure and the genetic mechanism of gravity deformation of high rock slope. Prof. Qi is also the Vice President for Asia, IAEG since June, 2024, Chairman of IAEG C29, Secretary General of IAEG China National, Deputy Director-General

and Life Council Member of International Consortium on Geo-Disaster Reduction (ICGDR), Director of the Key Laboratory of Shale Gas and Geological Engineering of Chinese Academy of Sciences, Secretary General of Engineering Geology Committee of Chinese Geological Society. Standing Member of Chinese Society of Rock Mechanics and Engineering, Vice Chairman of Rock Dynamics Committee, Editorial board member of Engineering Geology, Bulletin of Engineering Geology and the Environment, and other authoritative journals in the field of Engineering Geology. Prof. Qi has presided over more than 20 national basic research projects, science and technology research projects aimed for key task, as well as projects entrusted by national large enterprises, including: 1 special task of scientific and technological basic resources investigation, 1 outstanding

youth project, 1 excellent youth project of National Natural Science Foundation of China, 2 major project topics, 3 general projects, 1 strategic pilot special project (Class A) project of CAS, 1 key deployment project of CAS; Prof. Qi has published more than 200 papers and his papers have been cited for more than 4000 times. He has published 9 monographs, developed 1 set of research equipment, and authorized more than 60 patents. Prof. Qi has won national outstanding foundation and excellent foundation from NSFC in 2018 and 2013 respectively and he has been awarded the title of Leading Talent of Science and Technology Innovation in the National Ten Thousand Talents Program, the Runnerup of Richard Wolters Prize of IAEG Young Top Science and Technology Award, and the First Prize of Natural Science of China Society of Rock Mechanics and Engineering, etc.

Introduction of IAEG Vice President for YEG: Stratis Karantanellis



Dr. Stratis Karantanellis is a prominent Engineering Geologist and Postdoctoral Research Fellow at the University of Michigan, where he is leading cuttingedge research in landslide management and natural hazard assessment. Dr. Karantanellis is recognized for his pioneering work in the application of machine learning, object-based image analysis, and UAV photogrammetry for landslide detection and hazard mapping. His research spans a variety of high-impact projects, including those supported by NASA's Applied Science Disasters Program, where he contributed to multi-scale risk reduction strategies for landslides. His extensive research portfolio includes hazard assessments for rockfall and landslides, photogrammetric and LiDAR applications, and disaster response management.

In addition to his research, Dr. Karantanellis is deeply engaged in the global Engineering Geology community. He currently serves as the Chair of YEG, where he has been instrumental in promoting the participation of young professionals and strengthening relations within the IAEG.

Dr. Karantanellis has received numerous honors for his work, including the Early Career Research Award of Excellence from Aristotle University (2022) and multiple research grants. He has also mentored and supervised numerous undergraduate and graduate students, sharing his expertise in both research and teaching.

His dynamic contributions to the field of Engineering Geology, combined with his leadership in the YEG, make him IAEG Vice President for YEG.

17. PAUL MARINOS DISTINGUISHED WORLD TOUR LECTURE

1. Prof. Xuanmei Fan is invited by Nepalese Society of Engineering Geology to deliver Paul Marinos Distinguished World Tour Lecture at

Tribhuvan University in Nepal on December 10, 2025.



The Paul Marinos Distinguished World Tour Lecture

International Association for Engineering Geology and the Environment (IAEG)



Prof. Dr. Xuanmei Fan Prof Dr. Xuanmei Fan is director of State Key Laboratory of Geohazard Prevention and Geoenvironment Protection (SKLGP) at Chengdu University of Technology, China. Prof. Fan's research focuses on the earthquake- and climate change-induced chains of geological hazards, longterm landscape evolution and disaster risk reduction. Her work has been widely applied in the emergency response and rescue operations following major earthquakes. Due to her significant scientific achievements and contributions to society, she has recently received Chinese Young Women Scientists Award, Scientific Exploration Award, and the Science and Technology Awards of IAEG.As chair, she co-founded the Global Partnership for Smart Informatics and Multi-hazard Reduction (SIMR), aiming to address the global challenges created by increasing multi-hazard risk and climate change in a fast-changing world. She has published more than 140 ISI papers in Nature Geoscience, Reviews of Geophysics, GRL, JGR etc.

Lecture Title:

Earthquake and Climate Change Induced Cascading Hazards: **Mechanisms and Prediction**

Hosted By:



Date: 2024/12/10, Time: 2:00 PM Venue: Central Department of Geology, Tribhuvan University, Kirtipur, Kathmandu, Nepal

2. Australian NG has invited Xuanmei Fan to deliver the Paul Marinos Distinguished World Tour Lecture during the 1st Australian Conference on Engineering Geology on July 23-25, 2025.

3. Brazilian National Group (ABGE) are interested in hosting Prof. Xuanmei Fan in Brazil and planning to invite her to deliver a Paul Marinos Distinguished World Tour Lecture during the upcoming Brazilian National Congress (17-21 August 2025).

/8. YEG ACTIVITIES



YEG Article

Landslide Factor Optimization for Landslide Susceptibility Modeling

Azemeraw Wubalem

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Department of Geology, College of Natural and Computational Science, University of Gondar, Ethiopia Department of Earth Science, University of Turin, Turin Italy azmeraw.wubalem@uog.edu.et alubelw@gmail.com

1. Introduction

Landslide incidents have become destructive natural hazards in many parts of the world, particularly in mountainous regions, including Ethiopia. They may cause the destruction of engineering structures, loss of property, degradation of environments, and fatalities. The events frequently occur due to complex geological, geomorphological, climate change, and unplanned land practice conditions. Thus, understanding the severity of landslides and their processes is crucial for identifying the most critical conditions and triggering factors that help to predict landslide-prone and non-landslide-prone regions. This knowledge is essential for predicting, assessing, and mitigating the impacts and losses associated with landslide incidences (Wubalem, 2021) which characterized by frequent high landslide occurrences causing damages in farmlands, non-cultivated lands, properties, and loss of life. Preparing a Landslide susceptibility mapping is imperative to manage the landslide hazard and reduce damages of properties and loss of lives. GIS-based frequency ratio, information value, and certainty factor methods were applied. The landslide inventory map was prepared from detailed fieldwork and Google Earth imagery interpretation. Thus, 514 landslides were mapped, and out of which 359 (70%. Landslide prediction model quality is influenced by mapping techniques, input datasets, and landslide sizes. Landslide size in particular affects the influence of factors derived from the digital elevation model (DEM) such as slope, aspect, curvature, and elevation. Larger landslide sizes are better suited to coarser or lower DEM resolution, while the smaller landslide sizes might be effectively captured under finer or higher DEM resolution (Wubalem, 2022). Therefore, landslide factor selection and landslide size analysis are key steps in landslide susceptibility modeling. Although landslide prediction modeling is conducted worldwide (Ado et al., 2022; Fang et al., 2021; Getachew and Meten, 2021)2021, studies related to factor optimization particularly using the area under the receiver operating characteristics, are limited.

This case study aims to investigate the effectiveness of the area under the receiver operating characteristics curve (AUC – a visual representation of model performance) in identifying the most relevant landslide factors for susceptibility modeling (Figure 1). This case study employed fieldwork, image analysis, GIS, and bivariate statistical methods to predict the spatial

landslide susceptibility probability based on past landslide events. This finding provides insights into how landslide factors affect the quality of the prediction model and their effectiveness in engineering design and landslide mitigation strategies.

Materials and Method

A dataset comprising 12 landslide factors, and 712 landslides was compiled from literature, detailed fieldwork, and Google Earth Imagery analysis. These landslides were divided into training (70%) and validation (30%) datasets (Figure 1a). The relationship between past landslides and factors was analyzed using the frequency ratio (FR) method and ArcGIS 10.3.1 (ESRI, 2014). Then, the degree of landslide factors was evaluated using the area under the receiver operating characteristics curve (AUC) by an overlaid method in the GIS environment. Landslide pixels for each landslide factor were extracted. Then the most effective landslide factors were determined. The landslide susceptibility maps were generated from the sum of weighted parameters before and after optimization under a raster calculator in a GIS environment.

2. Result and Discussion

Landslide factors optimization or selection is crucial in landslide susceptibility prediction modeling. In this study, an AUC cutoff threshold of 0.5 was used. A higher threshold (e.g. 0.6 and above) could identify only highly predictive factors but might exclude those with a moderate impact on landslide occurrence. Thus, a 0.5 cutoff can include factors that moderately contribute to landslide occurrence.

The result indicates that factor optimization using the AUC method identified six factors with AUC values > 0.5, the remaining factors had AUC values < 0.5. The weighted factors were combined to create landslide susceptibility indexes (LSIs), categorized into five susceptibility zones of very low, low, moderate, high, and very high (Figure 1b) using the natural break classification method, which is appropriate for safe engineering practice, risk assessment and land-use planning (Zhang et al., 2022) while large numbers of landslide disasters have developed in the Hengduan Mountains area in the eastern part of the Tibetan Plateau. Accurate landslide susceptibility mapping (LSM. The susceptibility zones range from relatively safe regions in areas of flat land and strong lithology to high susceptibility zones in areas of steep slopes, weak lithology, and low vegetation cover. ROC (Receiver Operating Characteristic) curves determined AUC values, with the FR model achieving a 66.41% prediction before removing factors that scored <0.5. After factor optimization (landslide factor selection), the FR model demonstrated a success rate of 78.1% and a predictive rate of 73.5%, indicating improved performance (Figure 1 c & d). This underscores the influence of landslide factors on mapping accuracy and highlights the importance of optimization. The optimized FR model holds promise for researchers and decision-makers engaged in regional land use planning and landslide risk.

3. Conclusion

The area under the ROC curve (AUC) was used to determine the most effective landslide factors (those whose values were greater than 0.5). The result indicates only six factors had AUC values greater than 0.5. The landslide susceptibility models were produced before and after factor optimization, and their quality was evaluated using AUC. The result indicates the quality of the model is improved after factor optimization. The result emphasizes that landslide susceptibility modeling for high-quality models. The frequency of landslide occurrence needs attention, and it is crucial to conduct detailed geological engineering investigations before

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the construction of any engineering structures. Appropriate consideration of the ground and slope monitoring are recommended strategies for safe and stable engineering structures.

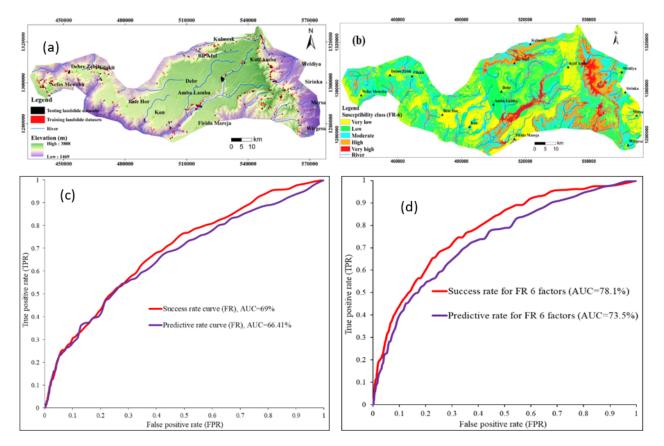


Figure 1 (a) landslide inventory (b) landslide susceptibility map

(c) & (d) receiver operating characteristics curve before and after factor optimization (Wubalem et al., 2022)

Acknowledgments

There is no financial fund for this newsletter publication. I extend my deepest gratitude to my colleagues Mr. Belete Getahun, Mr. Yohannes Hailemariam, Mr. Alemu Mesele, Mr. Gashaw Tesfaw, Mr. Zerihun Dawit, and Mr. Endalkachew Goshe for their invaluable support during my work.

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Yu Zhang

How does climate change impact human activities in alpine regions?

- A case study of the mountainous areas in northern Italy

Department of Earth Science, University of Turin, Turin, Italy yu.zhang@unito.it

1. Introduction

In recent years, the intensification of global climate change has significantly impacted geological hazards in alpine regions (Stoffel et al., 2014; Wang et al., 2024). Climate warming has accelerated the melting of mountain glaciers, increasing the risk of ice avalanches (Ballesteros-Cánovas et al., 2018; Eckert et al., 2024). The increase in freeze-thaw cycles and extreme rainfall events has also destabilized rock layers, raising the likelihood of landslides and debris flows. Additionally, permafrost degradation due to climatic influences further contributes to these hazards. These natural disasters can alter the distribution of crustal stress, potentially triggering seismic activity, which, in turn, can induce secondary geological hazards, exacerbating the complexity and destructive power of these events. Northern Italy, surrounded by the Alps, is a typical alpine region characterized by high altitudes, low temperatures, and perennial snow and ice cover. This region has been increasingly troubled by geological hazards due to global warming, which has constrained numerous human activities. The tourism industry, agriculture, animal husbandry, water resources, and infrastructure have all been significantly affected, posing threats to the lifestyle and safety of residents. Therefore, it is imperative to implement improved measures to prevent or reduce the occurrence of geological hazards.

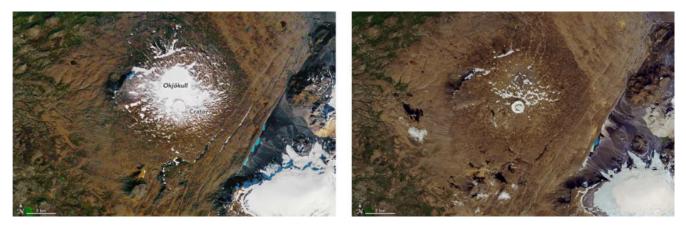


Figure 1 Okjökull glacier melt, is the first famous glacier in Iceland to be victimized by climate change (Bruns, 2021). Left: 07.09.1986. Right: 01.08.2019 (CGTN., 2019)

2. Status Quo and Future Implications

I have established research goals that consider the geological environment and conditions in the mountainous regions of northern Italy. My study aims to use acoustic emission (AE)-based machine learning approaches to understand crack propagation and rock degradation under different confining pressures during freeze-thaw cycles. By numerically simulating multiple freeze-thaw cycles and recording AE data, I aim to develop a high-precision machine learning model capable of accurately predicting the crack propagation paths and the rock degradation extent of rock samples. This research will deepen our understanding of rock mechanical behavior and provide new methods and technical support for assessing the durability of engineering and mountain structures, with significant implications for civil engineering and geological disaster prediction.

Currently, I am using the PFC (Particle Flow Code) discrete element analysis software to perform numerical modeling, following the methodologies outlined in King's article (King et al., 2021). This modeling replicates the stress-strain mechanisms, AE behavior, energy changes, AE size distribution, and fracture modes of Alzo granite from northern Italy under various confining pressures, using triaxial stress loading. The results obtained so far have validated the accuracy of my numerical modeling and confirmed the correctness of the modeling approach, thus providing a solid foundation for the planned numerical modeling of freeze-thaw cycle studies.

3. Conclusion

The northern Italian alpine region is characterized by high altitudes, low temperatures, and perennial snow and ice cover. It is a hub of human activity, featuring numerous tourist destinations, agricultural and pastoral areas, and is especially renowned as a skiing destination in winter, attracting people from around the world. These attributes make it an ideal research area for my study. Italy provides an open and vibrant academic environment. Collaborative exchanges with various researchers not only broaden my academic horizons but also provide invaluable insights and suggestions, significantly propelling my research forward. The combination of the unique characteristics of the northern Italian alpine region and the supportive academic environment in Italy offers me an optimal setting to pursue my research objectives. Ultimately, my research will provide insights into the degradation and mechanical behavior of rocks under freezethaw conditions in high-altitude cold regions, aiding in the identification of potential damage risks, reducing the risks associated with human activities, and enhancing engineering safety.

Acknowledgments

This work is financially supported by the China Scholarship Council, No. 202208410062. The au-



thor thanks Prof. S.C. Vinciguerra for his valuable comments and assistance in writing the article.

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YEG Activities at EURO ENGEO2024 IN DUBROVNIK

The EuroEnGeo 2024 conference was held in the beautiful city of Dubrovnik and hosted by the Croatian National Group, providing a vibrant platform for the global engineering geology community to engage in meaningful discussions and knowledge sharing. Attendees had the opportunity to explore a wide array of Engineering geological topics, ranging from innovative approaches in engineering to advancements in natural hazard mitigation. The Young Engineering Geologists (YEGs) took significant actions once again, ensuring their impactful presence within the IAEG. They organized dedicated sessions and workshops, fostering collaboration among emerging professionals and experts, and further solidifying their role in shaping the future of engineering geology. Through active networking and thought leadership, the YEGs demonstrated their commitment to advancing the field and strengthening the global engineering geology community.

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Figure. The venue of the EuroEnGeo 2024 meeting

Engaging Booth Activities

Throughout the conference, the IAEG-YEG booth was a bustling hub of interaction. Tümay Kadakci Koca, Stratis Karantanellis, and Om Dhakal Prasad actively represented the YEG and IAEG communities by welcoming attendees, providing detailed information about YEG activities, and exchanging knowledge with participants from various parts of the world. Their efforts ensured attendees were well-informed about YEG's initiatives and had access to various informational materials and souvenirs from IAEG-YEG. To add an element of excitement, a raffle was held, and two lucky participants received special YEG-branded gifts.



Figure. The YEG booth structure with the designed gifts and promotional material

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Figure. The YEG winners of the specially designed gifts in EuroEnGeo 2024 along with the YEG board members

YEG Session on AI and ML Innovations in Engineering Geology

One of the major highlights of the conference was the YEG session titled "In the Path of Progress: I Innovations in Landslide and Engineering Geological Research." This session featured eight insightful presentations including an invited talk by Prof. Luigi Lombardo (University of Twente, ITC). His presentation "A Step Towards Physics-Informed Neural Networks for Landslide Spatial Prediction: The Hybrid Future of Geotechnical and Data-Driven Modeling" provided a thought-provoking look at the intersection of geotechnical and data-driven modeling that signals the future of the field. The YEG session showcased cutting-edge research with a particular emphasis on artificial intelligence (AI) and its role in solving complex challenges in landslide and engineering geological research.



The YEG Party

No IAEG event is complete without the renowned YEG Party, and EuroEnGeo 2024 was no exception. On the final night of the conference, all attendees were invited to this traditional gathering. The YEG Party has become a hallmark of IAEG events, offering participants a chance to relax after a week of scientific discussions. It provided a casual atmosphere where friendships were forged, and professional networks were strengthened, reinforcing the social bonds that support the scientific community. And do not forget! Plenty of dancing and partying!

Travel grant opportunities for the IAEG summer school 2025

The Young Engineering Geology (YEG) group plans to offer two travel grants, contingent upon the availability of funds.

Date: 7 - 15 July 2025

Theme: The Role of Geological Model For Geo-Hazards Management And Infrastructure Design

Location: Aosta (Italy)

Application: <u>https://iaeg.info/summer-school-of-iaeg-and-the-environment/</u>

The deadline to apply for the travel grant is February 1, 2025

The school is dedicated to PhD students in Earth Sciences and Engineering Geology NO REGISTRATION FEE IS REQUIRED!

The number of participants is limited!

Students from underrepresented groups are strongly encouraged to apply. We strive to build

and sustain a welcoming environment for all.

Prioritization will be given to low-income and lower middle-income countries for the travel grant

You can refer to the World Bank's list <u>https://</u> <u>datatopics.worldbank.org/world-development-</u> <u>indicators/the-world-by-income-and-region.html</u>

1) A cover letter of his/her initiatives (max 2 pages)

Briefly introduce yourself and summarize your relevant background. Explain the personal outcomes. Highlight specific projects that align with the summer school and connect your experience to the summer school's mission or goals.

2) A breakdown of expected expenses (accommodation and flights)

3) These documents are in addition to the 1-page CV requested to apply for the participation.

/9. NEWS OF NATIONAL / REGIONAL GROUPS

ARGENTINA

Activities

- Recently, in July 2024, the Journal has been indexed in SciELO <u>http://www.scielo.org.</u> <u>ar/scielo.php?script=sci_serial&pid=2422-</u> <u>5703&Ing=es&nrm=iso.</u> This distinction has been achieved after satisfying a rigorous technical evaluation that guarantees the high standards of editorial Engineering (ASAGAI).
- Regarding the editorial committee, during 2024 PhD Malva Mancuso has joined as associate editor, strengthening the editorial work team.
- During 2024 ASAGAI signed conventions with various universities and other associations and has joined several scientific events providing its support.

- During 2024, the ASAGAI youth team has been relaunched with the intention of bringing together young professionals related to applied geology in the country. Also, a first meeting has already been held.
- During 2024 the Third Argentine Congress of Applied Geology to Engineering and the Environment has been announced to be held next year in Córdoba, Argentina.
- The translation to Spanish language (Section I) and text revision (Section II) of the "Guidelines for the development and application of engineering geological models on projects" of the IAEG Commission have recently been completed. Available online in our website: https://asagai.org.ar/tema/publicaciones/.

AUSTRALIA

Activities

The national group continue to be very active in organising and delivering professional development training courses for IAEG members and members of our sister organisations ISSMGE and ISRM. In total 6892 training hours have been provided.

- Several courses have been delivered, including Soil and rock logging to Australian Standard AS1726: 5 courses were delivered around the country to about 150 people.
- Geotechnical mapping to Australian Standard AS1726: 7 courses were delivered around the country to about 105 people.

- An Engineering Geology course was delivered to 24 people.
- An applied landslide risk field course to AGS 2007 guidelines to a total of about 25 people.
- Introductory and intermediate level GIS courses were delivered to about 80 people.
- Introduction to engineering geomorphology course: 4 courses were delivered around the country to about 100 people. 2 more courses are planned for later in 2024.

WEG group has met twice under the leadership of Sally Robert-Kelly and Ann Williams. Discussion have taken place and plans are being formulated to engage with other women in ground engi-

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neering and to encourage more women to join the Association.

YEG representative is vacant. In conjunction with our colleagues from the AGS, ISSMGE and ISRM and Young Geotechnical Professionals confer-

**BELORUSSIA **

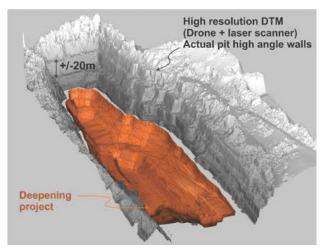
Belarusian National Group organized several conferences, which are

- 76th Regional Scientific and Practical Conference "Science - Education, Production, Economics" (March 1, 2024, Vitebsk, Belarus)
- TWENTY-FIFTH SERGEEV READINGS. Regional engineering geology and geoecology (March 28-31, 2024, Derbent, Republic of Dagestan, Russian Federation)

BELGIUM

Belarusian National Group organized several conferences, which are

• Hydrogen storage in underground environments on 19/2/2024;



and SIM conference (17/05/2024)

ence will take place in Adelaide in November 2024.

In April 2024 the AGS Introduction to GIS for geotechnical professionals was run for the Nepalese Society of Engineering Geologists.

- XVIII Geological Congress of the Komi Republic "Geology and mineral resources of the European North-East of Russia" (April 10-12, 2024, Syktyvkar, Komi Republic, Russia)
- II International Scientific and Practical Conference "Trends and Problems in the Development of Earth Sciences in the Modern World" (May 25-26, 2024, Gomel, Belarus)

• Workshop - Need and access to resources in a context of energy transition" technical day on 17/5/2024 - with SIM:

Pictures of the relevant activities:



Image from the presentation from ROCKENGEO Picture from the visit of the Constitution station of the Brussels metro (10/11/2024)

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2 Pictures from the conference on 19/02/2024 (Hydrogen in underground environment)

BHUTAN

It is currently not at all possible to participate or organize the events due to lack of fund. While certain events may be organised based on fees scheme in future but it is equally challanging due to local regulations. We would recommend if IAEG could consider some fund for participation in some IAEG events for developing countries as in the case of Bhutan.

For Bhutan, to mobilize the resources (fund), it will take some time so as to access to conference and so on.

In Bhutan, any group formation has to be

approved by the government body following the rule of law and vouneenter group do not have so much of freedom to excercise at the group level. This indicate the national group may be regulated. To start with, currently we are being hosted by the College of Science and Technology, Royal University of Bhutan until it's transition.

The fund transfer outside Bhutan is difficult and regulated by the law. However, since we are hosted by government institution, we are positive on it.

BRAZIL

On September 12, 2024, the Brazilian National Group held a commemorative event to mark the 60th Anniversary of IAEG and the 56th Anniversary of the Brazilian Association of Engineering Geology (ABGE).

The event also served as a platform to announce the results of the election for ABGE's new officers and executive board for the 2025–2026 biennium. Following the formal proceedings, attendees gathered for a dinner, which provided a valuable opportunity to reconnect with old friends and share professional experiences.

The atmosphere was both celebratory and reflective, highlighting the achievements of IAEG and ABGE in advancing the field of engineering geology. The Brazilian National Group organized a memorable celebration befitting the occasion.



CANADA

CGS Engineering Geology division updated on the definition of engineering geology. They finished an extensive consultation period and discussed the feedback received at the recent CGS conference in Montreal. Below is the updated version of the definition.

"Engineering geology is the application of knowledge of the earth's materials, earthforming processes, and geotechnique to engineering practice. The principal objective of engineering geology is to ensure that the geological and geotechnical factors affecting engineering works and geological hazards are recognized and provided for to safeguard life and public welfare, infrastructure, and the environment.

Engineering geologists have specialized knowledge in geological sciences and the principles and methods of engineering analysis acquired through education and professional experience. Engineering geologists are qualified to apply such knowledge, skill, and judgment to a wide variety of civil and mining works, and the prevention and remediation of geological hazards. They complete geological and geotechnical studies, inspections and analyses of, and provide recommendations and geological design associated with natural and built environments. They also develop measures to prevent, mitigate, and remediate geological hazards. Engineering geologists are critical to and should be considered key members in the development of the conceptual ground model for a given site.

"Geotechnique" refers to the application of scientific knowledge and methods involving soil and rock mechanics, hydrogeology, structural geology, geomorphology, seismology, and other subdisciplines of geoscience as applied to the solution of geological, engineering, and environmental problems."

CHILE

The PANAMGEO Conference 2024, held from November 12-16, 2024, concluded successfully, bringing together engineering geologists and geo-experts from around the globe. The event provided a platform for the exchange of the latest innovations and research in the field of geoscience, shaping a deeper understanding of

the Earth's processes.

The International Association of Engineering Geology (IAEG) is proud to have supported and represented the global geotechnical community throughout the conference, emphasizing the role of engineering geology in sustainable development. From expert-led panel discussions to groundbreaking research presentations, IAEG participated actively in fostering collaboration, sharing knowledge, and learning from esteemed colleagues across the continent. As the field continues to advance, IAEG remains committed to promoting the importance of engineering geology in building a safer and more resilient world.



CHINA

XII National Engineering Geology Congress in Shenzhen, China

The XII National Engineering Geology Congress, hosted by Geological Society of China and co-organized by the Engineering Geology Committee and Shenzhen University, has been successfully organized in Shenzhen, China from November 23-26th, 2024. The congress which is organized every four years is with the theme "Earth System Science and Innovative Development of Engineering Geology", with the purpose to explore the interdisciplinary integration of engineering geology with earth system science and other disciplines. More than 1600 experts in the field of Engineering Geology attended the congress on-site. A live streaming is open for online participation and viewed by around 60,000 times. The Past Vice President of

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IAEG for Asia and the Director of the Engineering Geology Committee Prof. Huiming Tang delivered speeches at the opening ceremony.



Photo 1: Group photo of Congress



Photo 2: Prof. Huiming Tang delivered speeches at the opening ceremony

The congress has organized 12 sessions focus on themes of cross integration of engineering geology and earth system science, geological hazard prevention and resilient city construction, big data and underground space utilization, ecological engineering geology and environmental protection, etc, over 600 oral presentations have been presented.

Before the Congress, the Director meeting of the Engineering Geology Committee and the annual assembly joint meeting of members of the Engineering Geology Committee and IAEG members were hosted on November 22, 2024.



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Photo 3: Prof. Shengwen Qi delivered introduction report to IAGE's 60th Anniversary on meetings on Nov. 22, 2024

**COSTA RICA **

COCIGA has shared his opinion on relevant political topics in Costa Rican newscast.

- A possible change in legislation allowing the legal exploitation of a gold deposit previously occupied by illegal miners: <u>https://</u> <u>surcosdigital.com/crucitas-mejor-un-si-pero-a-</u> <u>un-no/</u>
- A look into the problems that the road infrastructure of Costa Rica faces: <u>https://</u> <u>guananoticias.com/mas/opinion/que-pasa-</u> <u>con-la-infraestructura-vial-en-costa-rica/</u>
- A review of the reality and challenges of opting for solar and wind power: <u>https://</u> <u>delfino.cr/2024/06/energias-renovables-</u> <u>realidades-y-desafios</u>
- A response to a water supply contamination crisis that a sector of the great metropolitan area of Costa Rica suffered on the first months of 2024: <u>https://www.facebook.</u> <u>com/photo/?fbid=802868065207558&set=</u> pb.100064531158585.-2207520000
- An article illuminating the many mining challenges that a transition into full electric vehicles would demand: https://delfino.

cr/2023/12/vehiculos-electricos-vs-vehiculos-acombustion-interna-evolucion-inevitable-pero

 In defense of the Costa Rican geologist, civil engineers and other professionals in the geological engineering field in response to a government idea of bringing foreign scientist to elucidate earthquake hazars in a future site for a hospital: <u>https://www.facebook.</u> <u>com/photo/?fbid=763766112451087&set=</u> <u>pb.100064531158585.-2207520000</u>

COCIGA members have participated in seminars, lectures or other academic or educational events sharing their expertise.

- "Deciphering the modern stress field facies in Costa Rica and vicinity from earthquake focal mechanisms and GNSS support" by Allan López at Tectonic Stress: from the lithosphere to the wellbore. The Geological Society, Burlington House,
- Agregados Principios Clasificación y ventajas para el concreto by Edwin Garita for Proyect-Arq CR <: <u>https://www.facebook.com/share/</u> <u>p/BUaCQUeu2sLbCvsZ/?mibextid=qi20m</u>

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Members of Czech National Group are active in participating conferences and seminars:

- Annual meeting of COST Action FOLIAGE on Energy Geostructures (Istanbul, Türkiye, January 2024): 1 NG member <u>participated</u>.
- Online seminar <u>co-organized by the IAEG-NG</u> on "3D landslides sensing" by Stratis Karantanellis, University of Michigan, USA (Prague, Czechia, 8 March 2024).
- Online seminar <u>co-organized by the IAEG-</u> <u>NG</u> on "Geological carbon storage" by Victor Fagorite, ACE-FUELS, Nigeria (Prague, Czechia, 15 March 2024).
- Online seminar <u>co-organized by the IAEG-NG</u> on "Geoethics" by Barbara Zambelli, University of Pisa, Italy (Prague, Czechia, 22 March 2024).
- EGU (Vienna, Austria, April 2024): 3 NG members participated.
- Prague Geotechnical Days (Prague, Czechia, May 2024): 2 NG members were involved in the

o<u>rganization</u> of the conference, and several more participated.

- ReSyLab (Belgrade, Serbia, May 2024): 1 NG member <u>participated</u>.
- Interpraevent (Vienna, Austria, June 2024): 1 NG member <u>participated</u>.
- ISL Intl. Symposium on Landslides (Chambery, France, July 2024): 1 NG member participated.
- ECSMGE (Lisbon, Portugal, August 2024): 4 NG members participated.
- LARAM School and Workshop (Salerno, Italy, September 2024): 1 NG member will participate as a student in the school, and 1 NG member will participate in the workshop.
- Conference on Slope Tectonics (Brno, Czechia, September 2024): 4 NG members are involved in the organization of the conference.
- ALERT Workshop (Aussois, France, September 2024): at least 5 NG members will participate.

**GERMANY **

Prof. Dr. Karl-Heinrich HEITFELD celebrates his 100th birthday

Professor Karl-Heinrich HEITFELD celebrates his 100th birthday on November 3, 2024. Born in Hamm/Westphalia, he experienced the war and post-war period as a marine and prisoner of war, along with all the challenges of those times. Despite this, he began studying geology at an early age at the University Münster under Professor Lotze, where he also earned his doctorate. He qualified as a professor with a remarkable thesis on injections of dams and their problems at RWTH Aachen University. In his work, he was the first to address the importance of the directional accuracy of drilling, the importance of the correct "mixture" of the grout, its setting behavior and the proper control of the injection pressure. To our knowledge, it is the only habilitation thesis from that era in the geosciences that is still occasionally cited today.

His professional career began at the Ruhrtalsperrenverein,



today's Ruhrverband. Working alongside Director König, he initially managed the repair of war-damaged dams and initiated important repair work, especially on the subsurface sealing. He later played a key role in the planning and construction of the Bigge Dam.

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His first foreign assignments as a consultant for the Aswan and Euphrates Dams (Egypt and Syria) followed by several dams in Greece. His focus was on dams at Sperchios, in Kerkini, Kremasta with the highest dam in Greece and the Mornos Dam for the drinking water supply of Athens, a reservoir with a volume of 600 million m³. In the dam construction projects, Dr. HEITFELD was always mindful of the various environmental and the social also impacts as well as the political implications. This made him a valued advisor to numerous clients and governments. In many cases he proactively, in his own diplomatic way, ensured that potential conflicts were mitigated or avoided entirely. His ability to get to the heart of geological questions, construction problems and the socio-political implications in clear to propose solutions made him a recognized expert in dam construction both nationally and internationally at a young age.

Soon after he succeeded Professor Breddin at RWTH Aachen University. During the appointment process for Karl-Heinrich Heitfeld in 1970 he achieved to rename the chair for applied geology to "Engineering Geology and Hydrogeology" establishing the first chair of its kind in the Federal Republic of Germany. Dr. HEITFELD thus became the founder of engineering geology in Germany. With the appointment of Ernst Reuter to a corresponding professorship at the Bergakademie Freiberg/ Saxony, a similar development took place in the former GDR.

Under the leadership of Karl-Heinrich HEITFELD, the exploration of the subsoil and its suitability for dam construction as well as the involvement of engineering geologists in the construction and operation of dams became the first major focus of this field. This was later followed by the engineering geological exploration of the subsoil for underground construction, such as for the tunnels of the new Deutsche Bahn AG lines, which was mainly driven his numerous students. Towards the end of his term of office at the university, which lasted from 1971 to 1990, he developed suitable methods for exploring the subsoil for landfills as well as for the selection of locations and the monitoring of the structure and subsoil during operation. In particular, the selection of locations with its numerous, complexities became a research focus, soon becoming highly politically relevant topical due to the numerous political controversies surrounding landfill locations. His scientific achievements were recognized at the two universities in Aachen and Münster by granting him the "Merit of Senator".

Karl-Heinrich Heitfeld was also involved in numerous initiatives beyond his chair. Together with R. Wolters, he founded the engineering geology section within what is now the German Society for Geotechnics (DGGT) and the German Geological Society (DGG). He was also involved in the German Research Foundation (DFG). For many years he was the coordinator of the DFG priority program "Engineering geological problems at the boundary between loose and solid rocks". His textbook "Dams", published in 1991, is still an important basis for all work by engineering geologists in hydraulic engineering. In total, his scientific work includes well over 100 publications and over 30 successful doctoral students have taken his ideas worldwide.

All of these achievements in teaching and research, as well as his other commitment beyond the field, were recognized with the award of an honorary doctorate from the Technical University and Mining Academy Freiberg, the title of honorary senator from RWTH Aachen University and the award of the Federal Cross of Merit. His contributions to engineering geology and hydrogeology were recognized with the Hans Stille Medal.

Dr. HEITFELD, together with his wife and children, founded two foundations to support young scientists at RWTH Aachen Universitiy and University Münster. At both universities, the HEITFELD Prize is awarded annually as a celebration for older graduates and current

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students and fostering a lively exchange of private and professional experiences. The Alfred Wegener Foundation for GeoUnion honors the life's work of outstanding scientists.

Many of his numerous students have carried his ideas forward and implemented them in their professional and scientific careers. His successors in the chair (have included Kurt Schetelig 1990-2002, Rafig Azzam 2002-2017 and Florian Amann (since 2017)) they have continued the research and teaching of the chair and modified the focus areas.

His Successors:

Prof. Dr. K. Schetelig

Prof. Dr. Dr. h. c. R. Azzam

Prof. Dr. F. Amann

HONG KONG

Hong Kong Regional Group held a number of activities in 2024, some of the activities are:

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Geological Society of Hong Kong - 香港地質學會

The Geological Society of Hong Kong and Hong Kong Regional Group of the Geological Society of London successfully organised a technical visit to Route 11 Horizontal Directional Coring (HDC) site at Tsing Lung Tau on July 27th, 2024 which was attended by members of both Societies. It was an extraordinary experience to witness and learn about the latest drilling and coring operations and cutting-edge innovations to retrieve high-quality directional rock and soil samples.

We wo... See more



Geological Society of Hong Kong - 香港地質學會 June 17 · ③

香港地質學會 (GSHK) 欣然宣布與中國地質學會 (GSC) 簽署諒解備忘錄 (MoU)。這份具有里程碑意 義的備忘錄標誌中港兩地地質學會合作的新時代。

該諒解備忘錄於2024年6月13日在香港大學舉行的儀式上簽署,中港兩地學會代表出席了儀式。備 忘錄概述了在地質交流、地質科學普及、期刊出版、人才培訓、獎項提名、會員發展等方面進行合 作的承諾,並促進地質領域知識和專業知識的交流。 香港地質學會和中國地質學會將共同開展一系列舉措,營造合作環境,為中國和香港地質科學的進

步做出貢獻。 Hong Kong, June 16, 2024 — The Geological Society of Hong Kong (GSHK) is pleased to announce the signing of a Memorandum of Understanding (MoU) with the Geological Society of China (GSC). This landmark memorandum signifies a new era of collaboration between the two

The MoU was signed in a ceremony held in University of Hong Kong on 13 June 2024, and attended by representatives from both societies. The memorandum outlines a commitment to collaborate on geological exchanges, popularization of geological science, journal publishing, talent training, award nominations, membership development, and promote the exchange of knowledge and expertise in the field of geology. The GSHK and GSC will work together on a range of initiatives to foster a collaborative

environment that will contribute to the advancement of geological science in China and Hong Kong.



LITHUANIA

In July 2024, the Lithuanian National Society of Engineering Geologists was established through the initiative of members from the International Association of Engineering Geology and Environment's National Group

(IAEG-NG). The Society was founded with a clear purpose: to actively engage in drafting, discussing, and deliberating legal documents regulating the engineering geology field in Lithuania. It aims to contribute to expert activities

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and disseminate information and knowledge about the profession. Additionally, the Society is committed to supporting and encouraging young professionals, participating in international events, and ensuring that the voice of Lithuanian engineering geologists is heard nationally and internationally. The Society seeks to elevate the profession and enhance its influence within the global engineering geology community through these efforts.

NEPAL

The Nepal Society of Engineering Geology (NSEG) held the 2nd National Seminar on Engineering Geology (NatSEG-2), a key platform for sharing contemporary developments in the field of engineering geology in Nepal. The event was held on Sunday, October 20, 2024, at Hotel Himalaya in Kathmandu, under the theme "Contemporary Engineering Geological Practices in Nepal." The occasion also marked the 2nd National Engineering Geology Day (2nd NEG Day), making it a significant moment for Nepal's engineering geology community.

The one-day seminar drew participants from various fields and regions, including members and non-members of NSEG, institutional representatives, and professionals from countries such as Nepal, Japan, Australia, Canada, the United States, and India. The seminar provided a platform for presentations on research, panel discussions, an award ceremony, and a glimpse into future engineering geological collaborations, including the upcoming 15th Asian Regional Conference in Kathmandu.

The seminar was inaugurated with great enthusiasm by the Secretary of the Ministry of Physical Infrastructure and Transport, Nepal, who served as the chief guest for the event. The significance of the seminar was heightened by the presence of several distinguished guests, including Dr. Gangalal Tuladhar, former Minister of Education and a key member of the National Disaster Risk Reduction and Management Council, who acted as the guest of honor. Other notable attendees were Mr. Anil Pokhrel, Chief Executive of the National Disaster Risk Reduction and Management Authority (NDRRMA), and Dr. Rabindra Dhakal, Secretary of the Nepal Academy of Science and Technology (NAST).



The inaugural session set the stage for a

productive day of knowledge sharing and

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discussions on the critical role of engineering geology in Nepal. The presence of highlevel government officials and international participants underscored the growing importance of engineering geology in addressing the country's infrastructure development and disaster risk reduction challenges.

Following the inauguration, the seminar hosted the Annual General Meeting (AGM) of NSEG members. The AGM provided a platform for the society's leadership and members to review the progress of NSEG, discuss upcoming projects, and chart the future course of the organization. This gathering allowed members to assess the ongoing contributions of NSEG to the field of engineering geology in Nepal, particularly in areas such as disaster mitigation, slope stabilization, and infrastructure development.

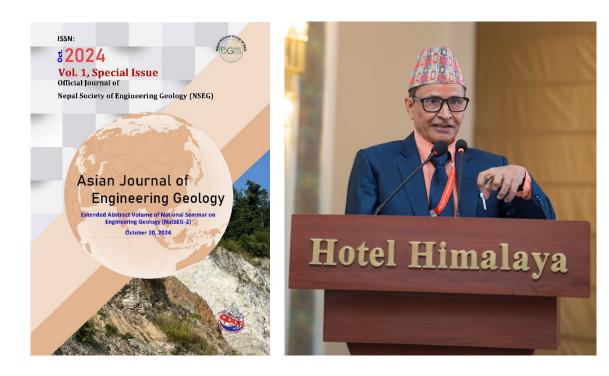
The AGM reaffirmed NSEG's commitment to fostering collaboration between national and international geological institutions, enhancing professional development opportunities for its members, and strengthening its contribution to the global engineering geology community through its affiliation with IAEG.

A core component of the seminar was a series of technical sessions featuring 11 research

presentations by professionals and experts in the field of engineering geology. These presentations covered a wide array of topics relevant to contemporary engineering geological practices, particularly in the context of Nepal's unique geological challenges. The research topics focused on issues such as:

- Rockfall protection measures
- Landslide hazard management
- Debris flow runout analysis
- Construction materials quality and standard
- Water management techniques for slope stabilization

One of the most notable presentations was the **NSEG Distinguished Lecture**, delivered by Mr. Dibya Raj Pant. Drawing on 40 years of experience in the hydropower and tunnel sectors of Nepal and India, Mr. Pant shared key lessons learned and insights that have shaped engineering geological practices in both countries. His presentation resonated strongly with the audience, particularly for those working in similar sectors and seeking to apply these lessons to their own projects.



Additionally, the **NSEG Opinion Lecture** was delivered by Dr. Ranjan Kumar Dahal, the Founder and President of NSEG and Vice President of IAEG. Dr. Dahal's lecture focused on the engineering geological implications of recent hydro-climatic disasters in Nepal, emphasizing the need for integrated approaches to disaster risk reduction and resilience-building, particularly in the face of increasing climate-related challenges.

The extended abstracts of the research presentations were compiled and published in **Volume 1, Special Issue** of the Asian Journal of Engineering Geology (AJEG), providing a valuable resource for further study and reference. The journal is accessible online at www.ajeg.nseg.org.np.

One of the key highlights of the seminar was a panel discussion on the theme "**Future of Engineering Geology in Nepal**" The session was coordinated by Dr. Ranjan Kumar Dahal and included prominent panelists Mr. Govinda Sharma Pokharel, Mr. Achyut Koirala, Mr. Dibya Raj Pant, and Dr. Kumud Raj Kafle.

The panelists engaged in a thought-provoking discussion on the future trajectory of engineering geology in Nepal and its potential intersections with other scientific disciplines. Key topics included:

- Enhancing interdisciplinary collaboration between engineering geologists, civil engineers, and environmental scientists.
- The role of engineering geology in mitigating the impacts of natural disasters, particularly landslides, floods, and earthquakes.
- The need for better integration of engineering geological practices in national infrastructure development policies.
- Important of Registration of Nepali Engineering Geologists in Nepal Engineering Council (NEC)



The discussion concluded with a strong call for enhanced collaboration among academic institutions, government agencies, and private sector stakeholders to tackle Nepal's pressing

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geological challenges. The panel emphasized the critical need to nurture the next generation of engineering geologists through education, research, and international cooperation. Additionally, the panel stressed that if the Nepal Engineering Council (NEC) does not formally register Nepali engineering geologists under the engineering geologist category by law, these professionals will lack accountability, and Nepal's civil engineering projects will face greater difficulties in the future.

Following the panel discussion, the seminar proceeded with an award ceremony to recognize outstanding contributions and achievements in the field of engineering geology. The awards presented during the ceremony included:

Distinguished Career Award: This prestigious award was presented to Mr. Dibya Raj Pant in

recognition of his decades of contributions to the field of engineering geology in Nepal and India. Mr. Pant's career has been instrumental in advancing geological research and practice, particularly in the hydropower and tunnel sectors.

2nd Annual NSEG Thesis Award: This award was presented to two MSc students (one male and one female) for their high-quality research in engineering geology as part of their master's theses. The award aimed to encourage young researchers to continue contributing to the field and to recognize the importance of academic excellence in advancing engineering geological knowledge.

The 2023 Jajarkot Earthquake Volunteering Certificates: Volunteers who contributed to the Jajarkot geological initiative were also honored with certificates in recognition of their service.



In addition to these major awards, certificates were presented to the 11 researchers who delivered presentations during the seminar, acknowledging their valuable contributions to the event.

the 2nd National Seminar on Engineering Geology (NatSEG-2) were resounding

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successes, offering a platform for the exchange of knowledge, recognition of outstanding achievements, and exploration of future directions for engineering geology in Nepal. The seminar brought together experts, government officials, and professionals from around the world, reaffirming the crucial role that engineering geology plays in addressing Nepal's infrastructure challenges and disaster risks.



NSEG's commitment to fostering collaboration, research, and education in engineering geology remains strong, and the society's ongoing activities, including the upcoming 15th Asian Regional Conference, will continue to advance the field both nationally and internationally. The event served as a reminder of the importance of interdisciplinary cooperation and innovation in solving Nepal's complex geotechnical and environmental challenges, and NSEG's role as a leading voice in these efforts.

NETHERLANDS

On April 5, 2024, the Dutch National Group hosted the General Assembly & Ingeokring Get-Together event at Royal HaskoningDHV in Amersfoort. Additionally, they organized a series of lectures on the Assessment of Existing Dam Structures. On August 24, 2024, the group conducted an excursion to Limburg, Netherlands, focusing on Post-Mining Risk Management in the Valkenburg Calcarenite mines.



Ingeokring in Morseleben, Germany (left) Ingeokring next to large scale mine collapse in Valkenburgergroeve, Valkenburg aan de Geul, the Netherlands (Photo Robert Hack) (right)

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PERU

1st Peruvian Biennial on Geotechnics: The first Peruvian Biennial gathered national experts to explore innovative practices and advancements within the field. Held on June 19th and 20th, 2024, the conference got a total attendance of 200 participants. Notably, the event received sponsorship from three prominent national companies: GEOLAB, Geomecánica Latina S.A., and GEO5 Perú E.I.R.L. This collaborative initiative involved student chapters from the National University of Engineering (UNI), including the following: SPEG – ISRM Student Chapter, Geogroup FIC, and CINGEO from the San Marcos National University. The event was held at the UNI Faculty of Engineering geology auditorium in Lima, Peru. It had a hybrid format, allowing both in-person and online participation. The virtual component showcased presentations from esteemed international experts, offering state-of-the-art techniques. A significant highlight of the biennial was the co-hosting of the 1st Latin American Symposium on Geoethics in collaboration with IAPG Latin American representatives, aiming to champion responsible conduct and cultivate awareness among geoscientists.

**SINGAPORE **

SRMEG and SEGRM Joint Seminar in Nanyang Technological University, Singapore

Society for Rock Mechanics and Engineering Geology Singapore (SRMEG) and Society for Engineering Geology and Rock Mechanics Malaysia (SEGRM) co-organized a one-day joint seminar and round-table discussion in NTU on 07th August 2024. This event strengthened the partnership between SEGRM and SRMEG and promoted academic and industrial collaborations between Malaysia and Singapore.



SRMEG Short Course on Geology of Singapore & Rock Cavern Development in Nanyang Technological University, Singapore

SRMEG organized a 3-day short course on Geology of Singapore & Rock Cavern Development in August and September 2024. The short course covers new stratigraphic



framework for geology of Singapore and its applications, and planning and development of rock cavern facilities, given by Dr Yingxin Zhou, Dr Yoong Zoo Lee, Mr. Kiefer Chiam, and Mr Michael Goay. About 30 participants from academia and the industry attended this short course.

https://www.cma.sg/event/srmegshortcourse2024/



SOUTH AFRICA

The South African Institute for Engineering and Environmental Geologists, which is also the local IAEG National Group, presents annual professional development seminars with the 2024 seminar titled "Dolomite Evaluation – Back to Basics". This was held on 10 to 12 April 2024 and included a visit to sinkhole rehabilitation sites. These seminars are still presented as hybrid events providing opportunity for members



Site Visit to Sinkhole Rehabilitation on A Major Highway

across the country to attend and earn their required cpd points. The seminar covered evaluation of dolomite terrain focusing on the basics of site investigation and various remote sensing techniques and was presented as a series of talks and discussions on sinkholes, case studies and current research from South Africa. It was tailored for engineering geologists and geotechnical engineers.



Panelists Wrapping Up the Seminar

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TURKEY

"National Symposium on Engineering Geology and Geotechnics (ENGGEO'2024)", organized in cooperation with Nevşehir Hacı Bektaş Veli University (NEVÜ) and the Engineering Geology Association, was successfully held between 6-8 June 2024.

The opening ceremony of the Symposium held at NEVÜ Vali Şinasi Kuş Culture and Congress Center; NEVÜ Rector Prof. Dr. Semih Aktekin, General Manager of Infrastructure Investments of the Ministry of Transport and Infrastructure, Dr. Yalçın Eyigün, NEVÜ Vice Rectors, Chamber of Geological Engineers Chairman Hüseyin Alan, protocol members, geological engineers working in institutions and organizations, private sectors, civil engineers, mining engineers, scientists, students and guests attended.



View from the ENGGEO2024 Symposium participants in the hall

Chairman of the Board of Directors of the Engineering Geology Association, Prof. Dr. Remzi Karagüzel, Chairman of the Board of Directors of the Chamber of Geological Engineers Hüseyin Alan, one of the Symposium Presidents and NEVÜ Vice Rector Prof. Dr. Mutluhan Akın NEVÜ Geological Engineering Department Head Prof. Dr. İsmail Dinçer made speeches and touched upon the importance and outcomes of the Symposium.



Prof. Dr. Semih Aktekin

Prof. Dr. Remzi Karagüzel

Prof. Dr. Mutluhan Akın

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Hüseyin Alan

Prof. Dr. Ismail Dinçer

Prof. Dr. Halil Kumsar

During the ENGGEO'2024 symposium, scientific sessions and technical trip gathered considerable interest. Additionally, a special booth dedicated to promoting IAEG, YEG, and MühJeoDer attracted great attention. This booth served as an important platform where young engineering geologists could gather and interact. Attendees had the opportunity to gather detailed information about the association's activities, receive brochures, and collect souvenirs. Throughout the symposium, the booth facilitated active communication among participants from different age groups. Senior colleagues and mentors shared their industry experiences, while discussions also focused on the challenges faced by young engineers. This exchange of information contributed to discussions on industry innovations and career opportunities, thereby supporting the professional development of younger generations.

Following the event, photos of the ENGGEO'2024 Symposium were shared on YEG Turkey's LinkedIn account, extending the reach of the event's atmosphere and the association's participation through social media.



View from the IAEG-YEG-MUHJEODER (Turkish National Group) Stand During the ENGGEO'2024 Symposium

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On the third day of the symposium, on Saturday, June 8, 2024, a technical trip was organized on a route consisting of Soğanlı Valley, Derinkuyu Underground City and Kayaşehir stops, which are relatively less known in the Cappadocia region but we think they are very important for the region. The route is also important as it provides the opportunity to see on-site the engineering geology problems encountered in historical, cultural and natural heritage.



General view of Soğanlı Natural Historical Site



Technical Trip Delegation in Soğanlı Natural Historical Site

UK

EGGS/IAEGUK Annual Conference

A 2-day EGGS/IAEGUK annual conference happened from 11th to 13th April 2024 and was hosted at Christ's College, Cambridge. The theme of the meeting was "Groundwater in Engineering Geology & Engineering Geology of Infrastructure Development". The event commenced with an early careers CDP session on the Thursday, presentations on Thursday evening, Friday and Saturday morning. A conference field trip was undertaken on the Saturday afternoon. A conference dinner was held on the Friday night in Christ's College Hall. A total of over 80 delegates attended the conference.

The Glossop Lecture of the Engineering Group of the Geological Society (EGGS) of UK

An excellent event organised by the Engineering Group of the Geological Society (EGGS) for the prestigious Glossop Lecture in the community of the Engineering Geology. Congratulations



USA

In 2024, the USA National Group of the International Association for Engineering Geology and the Environment (IAEG) made significant contributions to advancing engineering geology. The Membership Committee launched initiatives to grow and retain membership, with the USA reporting 1,570 professional members and 854 students among its 2,754 total members as of July. The AEG Annual Meeting in Philadelphia, themed "Geology of the Crossroads," showcased the USA's leadership in the field. Notably, Deb Greene, Chair of the Diversity, to all the team of the EGGS for organising this event, but also early career events for the young professionals.

IAEG highly values this highly prestigious lecture within our Engineering Community. Only if one sees the Glossop Medal recipients.

Congratulations to Dr. Mark Lee for delivering a fantastic Glossop Lecture titled "Landslide Risk Assessment: Radical Uncertainty and Engineering Geomorphology", in the Royal Institution of London.



Equity, and Inclusion Committee, received literary accolades for her novel No More Empty Spaces, including the 2024 International Book Award for Best New Fiction. Legislative advancements in Virginia updated geology practice definitions, ensuring public safety and infrastructure development. Despite challenges, including a financial setback, the USA National Group remains focused on strengthening membership, fostering professional growth, and promoting IAEG's mission globally.

/10. 2024 MEMBERSHIP SUMMARY

By December 30, 2024 the number of IAEG memberships is 5692 from 70 national/regional groups.

VP	No.	NG	total	Associate members
Anthony Bowden	1	Australia	470	
	2	New Zealand	591	
	3	Albania		
	4	Austria	19	
	5	Bulgaria	10	
	6	Croatia	31	
	7	Cyprus		
	8	France	97	8
	9	Georgia	14	
	10	Greece	72	
Janusz Wasowski	11	Hungary		
	12	Italy	97	
	13	Portugal	64	
	14	Romania		
	15	Serbia		
	16	Slovenia	43	
	17	Spain	25	
	18	Switzerland	58	
	19	Turkey	133	
	20	Belorussia	7	
	21	Netherlands	28	
	22	Lithuania	9	
	23	The United Kingdom	322	
	24	Belgium	62	
	25	Czech Republic	28	
	26	Denmark		
	27	Estonia		
Halan Daavaa	28	Finland		
Helen Reeves	29	Germany	449	
	30	Iceland	12	
	31	Ireland		
	32	Norway		
	33	Poland		
	34	Russia	85	
	35	Slovak Republic	5	
	36	Sweden	47	
	37	Uzbekistan		

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VP	No.	NG	total	Associate members
Moshood N. TIJANI	38	Algeria	5	
	39	Nigeria	109	
	40	South Africa	163	
Julien Cohen-Waeber	41	Canada	91	
	42	USA	200	
	43	Argentina	19	
	44	Bolivia		
	45	Brazil	566	
	46	Chile	52	
Victor Manuel	47	Colombia	10	
	48	Costa Rica	14	
	49	Mexico	15	
	50	Paraguay		
	51	Peru	10	
	52	Bangladesh	65	
	53	Bhutan	18	
	54	China	595	
	55	Chinese Taipei	80	
	56	HongKong	7	
	57	India	231	
	58	Indonesia		
	59	Iran		
	60	Iraq	10	
Ranjan Kumar Dahal	61	Japan	77	6
& Vanafaak (EO	62	Korea	83	
YongSeok SEO	63	Malaysia	14	
	64	Mongolia	22	
		Myanmar		
	65	Nepal (NGS)		
	66	Nepal (NSEG)	243	
	67	Pakistan	54	
	68	Singapore	132	
	69	SEAGS	3	
	70	Vietnam	26	
Individual Member				
	ociate Mem			
Total			5692	14

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/11. IAEG CONGRESS AND REGIONAL CONFERENCES

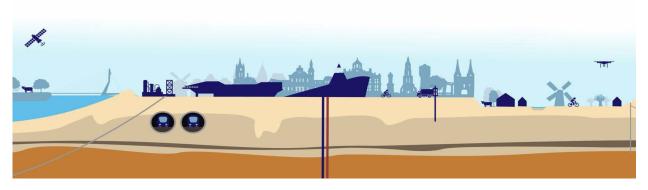
The 15th IAEG Congress in Delft, Netherlands on October 30 -November 6, 2025

SAVE THE DATE



ENGINEERING GEOLOGY AND THE ENVIRONMENT

> **15th IAEG 2026 Congress** Engineering Geology in a Rapidly Changing World 30 Oct - 6 Nov 2026 | Delft, The Netherlands



Dear Colleagues and Friends of IAEG,

It is a great pleasure to host the IAEG 2026 Congress in Delft, the Netherlands, from **30-10 to 06-11-2026**. The congress themed **Engineering Geology in a Rapidly Changing World** will focus on cutting-edge research on the fundamentals of engineering geology, showcase best practices in the domain and demonstrate the pivotal role of engineering geology in a world struggling with unprecedented challenges.

We will cover a comprehensive set of engineering geology topics, with two over-arching themes: sustainable global development and mitigation of and adaptation to climate change. The congress will be held at the Aula of Delft University of Technology in the Netherlands.

Please consult www.IAEG2026.org for detailed information and stay tuned via Linked In "IAEG 2026 congress".

We are looking forward to your participation in IAEG 2026 and to the collective efforts that will shape the future of engineering geology.

The IAEG2026 congress team



То

Ingeokring members

Members of all IAEG National groups

EUROENGEO 2024 participants

IAEG connector readers

Members of the IAEG sister Associations: ISRM, ISSMGE, & IGS

(J)TC members

ITA Members, and

Friends of IAEG



The 4th Asian Regional Conference of IAEG in Windhoek, Namibia on September 8-12, 2025



CREATING A SAFE FUTURE

The unpredictable and catastrophic geohazards associated with **climate change** have particularly negative impacts in developing countries and on poor communities. The importance of **Engineering Geology** to reduce negative impacts and create safe living environments will be highlighted during this congress. The need for **safe and responsible mining** of strategic minerals essential for the transition to viable green energy alternatives, will also be emphasised.

FIRST CALL FOR ABSTRACTS

We would like to invite all interested parties to submit an abstract for the conference. Abstracts will be accepted for oral or poster presentations.







INTERNATIONAL ASSOCIATION FOR ENGINEERING GEOLOGY AND THE ENVIRONMENT ASSOCIATION INTERNATIONALE DE GEOLOGIE DE L'INGENIEUR ET DE L'ENVIRONNEMENT



NAMIBIA

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4TH AFRICAN REGIONAL

FORMAT OF ABSTRACT

- Length of abstract 300 words.
- Title Arial font: size 14 point, centered
- Authors Names, affiliation and countries of authors and co-authors must appear under the title.
- Format Typed in Times New Roman, 12 pt and 1.5 spacing.
- Margins 25mm on all sides.
- Text must begin at the margin do not indent.

The official language of the conference is **English.** All abstracts, posters and presentations to be presented in **English**.

SUGGESTED TOPICS FOR ABSTRACTS

Emphasize the importance of engineering geology, geotechnical and rock engineering in:

- Transition to Renewable Energy
- Sustainable and Safe Mining
- Climate Change Geohazards

SUBMISSION INFORMATION

Please email your abstract to the conference secretariat - <u>secretariat@saieg.co.za</u>

Kindly ensure that your abstract are in the correct format as indicated above.

Please use the abstract template as provided.

Deadline for abstract submissions is Friday 31 January 2025



4TH AFRICAN REGIONAL

WHO SHOULD ATTEND

Engineering and Environmental Geologists; Geotechnical Engineers; Mining and Rock Engineers. (Professionals in these fields from Africa are specifically encouraged to attend.)

This event will act as stimulus to establish an IAEG Regional Group and strengthen collaboration between IAEG, ISRM, ISSMGE and IGS in Africa.

IMPORTANT DATES

Abstract submissions open: First call for registration: Abstract submissions close: Acceptance of abstracts: Early bird registration deadline: 21 November 2024 10 December 2024 31 January 2025 February 2025 May 2025

PROVISIONAL PROGRAMME

Pre-Conference Short Courses:	8 September 2025 (morning)
Conference:	8 (afternoon) - 10 September 2025
Post-Conference Field Trips:	11 - 12 September 2025

SPONSORSHIP

There will be various sponsorship, advertising and exhibition options available. For the list of options please send an email to the conference secretariat.

CONFERENCE SECRETARIAT

Yolandé van den Berg Email: <u>secretariat@saieg.co.za</u> Cell: +27 (0)82 323 3910



The 15th Asian Regional Conference of IAEG in Kathmandu, Nepal on November 27-29, 2025



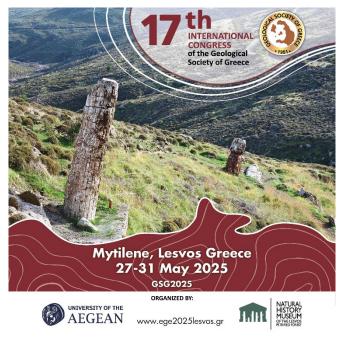
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/12. MEETING INFORMATION

Mytilene, Lesvos, Greece, May 27-31, 2025 17th International Congress of the Geological Society of Greece

The 17th International Congress of the Geological Society of Greece is organized by the University of the Aegean / Department of Geography in collaboration with the Natural History Museum of the Lesvos Petrified Forest with the support of the Academic Departments and Sectors in Geosciences of the Greek Universities, Research and Scientific Institutions and Development Agencies operating in the Aegean.

The primary goal of the Congress is the presentation of the most recent advances in Geological- and Environmental Sciences, mainly in the Aegean Region and its surroundings, aiming at highlighting their impacts on natural resources, natural hazards, and environmental problems. A major aim of the Congress is also to emphasize data acquisition, multi-disciplinary interpretation



and modelling, theoretical developments, and applications to the Earth's systems at various spatial scales employing new open-access data.

Conference Information

Website: www.ege2025lesvos.gr; Email: info@ege2025lesvos.gr; Tel.: +3022510-47033

Paper Submission

The Congress will publish full, peer-reviewed Short Papers (Extended Abstracts – up to 6 pages) of the submitted contributions. Papers will be published in the Bulletin of the Geological Society of Greece. The Conference proceedings will be prepared in advance and distributed during the Congress in electronic format. Participants interested in publishing a paper should submit the complete manuscript until **December 31, 2024**.

Submitted papers will be reviewed and authors will be notified for the acceptance no later than **February 15, 2025.** For accepted papers to be published, registration fees (cat. B fees) should be paid within 10 days of the acceptance notice at the latest.

Please refer to <u>https://ege2025lesvos.gr/wp-content/uploads/2024/06/EGE2025-first-circular.pdf</u> for the 1st circular of the congress.

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ENGINEERING GEOLOGY AND THE ENVIRONMENT N INTERNA E DE L'IN

The 3rd Argentina Congress of Applied Geology to Engineering and The Environment on September 23-26, 2025 in Argentina



📖 SEPTEMBER 23 TO 26, 2025

CÓRDOBA REGIONAL FACULTY – NATIONAL TECHNOLOGICAL UNIVERSITY Maestro M. López esquina Cruz Roja Argentina

The **Third Congress of Geology Applied to Engineering and the Environment** will bring us together to celebrate 50 years of life of the Argentine Association of Geology Applied to Engineering. With invited lectures, oral presentations and poster presentations, a pleasant meeting will be provided to learn, talk and exchange ideas and advances on all topics related to geology applied to engineering and the environment, as well as other related disciplines.

It will take place in an area that will allow you to enjoy meetings and reunions, and where each one of the attendees will be able to be part of this great celebration.

ORGANIZING COMMITTEE

President: Norberto Jorge Bejerman Secretary: María Pía Cruz Treasurer: Fabio Sergio Luna Members: Gonzalo Martín Aiassa, María Victoria Altinier, Pedro Ariel Arrúa, María Paula Bunicontro, Aldana Carolina Contreras, Claudina Di Martino, Mauricio Giambiastiani, Julia Löffler.

THEMES

- Geological-engineering aspects in the construction of works and terrain pathologies
- Thematic cartography

SPONSORSHIP OPPORTUNITY:

- Environmental, urban geology and territorial planning
- Coastal geology

- Medical geology
- Integrated water resources management
- Rock and soil mechanics. Foundations
- Geoparks and Geotourism
- Geological risk

Any company that provides services, products, geological and engineering equipment, or similar, is invited to participate and sponsor the event. They are a valuable support to the success of this meeting, obtaining in turn the opportunity to witness the event and exhibit their products. Those interested can contact us by sending an email to the conference contact address.

🖂 congresoasagai2025@gmail.com

ASAGAI In the next circulars, information regarding presentation of work and registration amounts ASOCIACIÓN ARGENTINA DE GEOLOGÍA APLICADA A LA INGENTERÍA will be disseminated. .UBA 0 HLL I@eBA IAEG E DEOL AATES COMITÉ ARGENTINO DE PRESAS PROMOTING AIDIS INGENIEROS CIVILES said **FCEFyN** Fain ۲ Departsmente Academico de Giencias y Tecnologías Apl a la Producción, al Ambier

New Delhi, India, December 1-3, 2025 **EGCON 2025**





International Association for **Engineering Geology and the Environment**



Geological Survey of India

The Conference

On its Diamond Jubilee anniversary, Indian Society of Engineering Geology (ISEG), the Indian National Group of the International Association for Engineering Geology and the Environment (IAEG), announces EGCON 2025 - the International Conference on Engineering Geology and Geohazards' at New Delhi on 01-03 December 2025. Organised in collaboration with the IAEG and Geological Survey of India (GSI), the conference provides a vibrant platform for exchanging state-of-the-art developments in the fields of engineering geology, geotechnical engineering, and geohazards.

We, the Executive Council of the ISEG and Team EGCON 2025 take pride in inviting you to join us at the celebrations and to the conference. We assure you of an unforgettable experience at EGCON 2025 and of a unique opportunity of interaction with committed experts from industry and academia from across the globe. The international guests are invited to explore a developed and 'Viksit Bharat' - the new India, and experience its traditional and warm hospitality.



Please refer to https://www.dropbox.com/scl/fi/2zy1fbmjphqfx0xsxijvh/EGCON2025-Circular.pdf?rlkey= m6kvgdrf3in34d8ugbiv40ljy&st=fk0x4di5&dl=0 for the 1st circular of the conference.

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ISRM Workshop on Soft Rocks

Porto, Portugal, 15-16 May 2025

https://fe.up.pt/isrm-wsr2025/

Bulletin No. 1

Introduction

Soft rock, with its intricate mechanical behaviour, poses significant challenges in rock engineering, particularly as projects in coal mining, water conservancy and transportation extend into deeper territories. The encounter with weak and fractured strata in complex geological settings, characterized by high in-situ stress, geothermal gradients and the presence of groundwater, necessitates innovative approaches to ensure safety and manage construction costs effectively. The comprehensive understanding of soft rock's physical properties and classification, and the development of novel design methods for engineering in such environments is crucial for the advancement of the field.

The Soft Rocks Commission of the International Society for Rock Mechanics and Rock Engineering (ISRM) is proud to announce the organization of the ISRM Workshop on Soft Rocks, to be held in Porto, Portugal, in May 2025. We look forward to receiving your groundbreaking research and to a fruitful exchange of ideas at the ISRM Workshop on Soft Rocks in 2025.

Organisers

- ISRM Commission of Soft Rocks
- Faculty of Engineering of the University of Porto (FEUP)
- China University of Mining and Technology, Beijing
- Chinese Society for Rock Mechanics and Engineering (CSRME)
- Portuguese Geotechnical Society (SPG)

Themes & Topics

- Concept and classification of soft rocks
- Physical and mechanical characterization of soft rocks
- Stability analysis, monitoring and control technology of soft-rock slopes
- Deformation mechanism and control technology of soft-rock tunnels
- Design measures of soft-rock engineering

Honour Commission

- Seokwon Jeon, ISRM President
- Ki-Bok Min, ISRM Vice President for Asia
- Muriel Gasc-Barbier, ISRM Vice President for Europe
- Luis Lamas, ISRM Secretary General
- Manchao He, CSRME President

Organizing Committee

The Organizing Committee includes all the members of the ISRM Commission of Soft Rocks and specialists from Portugal:

- Luis Ribeiro e Sousa (Chairman), Portugal
- Xiaoming Sun (Co-Chairman), China
- António Fiuza, Portugal
- Cuiying Zhou, China
- Giovanni Grasselli, Canada
- Hui Zhou, China
- Joaquim Sousa Góis, Portugal
- Luís Lamas, Portugal

- Wei Wu, Singapore

- Quansheng Liu, China

Sérgio Fontoura, Brazil

- Nuwen Xu, China

- Pingye Guo, China

- Qi Wang, China

- Mostafa Sharifzadeh, Australia

- Pham Quoc Tuan, Vietnam

- Manchao He, China

Secretariat and Information

- Manuel Carvalho, University of Porto, Portugal (manuel@fe.up.pt)
- Danting Hu, Chinese Society for Rock Mechanics and Engineering, China (dantinghu@126.com)

Publication

- Special issue: Soft Rock Engineering of the International Journal of Coal Science & Technology
- Submission Open Date: 15 October 2024
- Manuscript Submission Deadline: 20 March 2025
- Website for Submission: https://link.springer.com/journal/40789
- Please choose Special Issue on Soft Rock Engineering: Challenges and Innovations

Registration Cost

- Members of ISRM, CSRME, SPG and FEUP: 200 EUR; Students: 100 EUR
- Other members 250 EUR

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- The registration cost includes the proceedings, participation in the sessions, and coffee breaks

Venue

The venue will be the Auditorium of the School of Engineering of the University of Porto. Porto is a coastal city in northwest Portugal known for its bridges and Port wine production. In the medieval riverside district, narrow cobbled streets wind past merchants' houses and cafés.



Porto - view of the old city

/13. CONTACT INFORMATION

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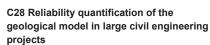
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