

IAEG NEWSLETTER

Issue No.4, 2023
Website: www.iaeg.info
Electronic Version

Cover Story



From the closing ceremony of the 14th IAEG World Congress: "This photo was my favorite, among hundreds taken throughout the Congress. This is because the word "GEOLOGY" is emphasized in the photo within the title of the congress (*Engineering geology for a Habitable Earth*).

We need to maximize the integration of Geology to Engineering. A trend of deviation of Engineering Geology can be seen internationally. What happens so often to the Geology in Engineering Geology? Cases are observed with departure from the common ground in Engineering Geology, Soil Mechanics and Rock Mechanics, sometime with Engineering Geology not even standing up to its intellectual merits, methods and procedures.

Today, we are not only facing our colleagues from other geo-engineering professions like almost 60 years ago. Yes, we always need to persuade engineers why "Geology matters" in the design and construction works. It is a continuous effort to request for more site investigation - more survey to reduce geological uncertainty. Today we are also facing ourselves. We have succeeded in many fields the latest decades in "putting numbers in geology" and ground investigation techniques. The technological innovations have been a powerful tool for analysing and managing geohazards. A geostatistical analysis of laboratory and field tests, a geotechnical classification value, a tectonic diagram generated automatically, thematic maps derived from a UAV or LiDar or Satellite images cannot dominate upon any other judgment and cover all our works and tasks. It always takes geological insight for one Engineering Geologist.

We have to Revisit our Engineering Geology core values. We have to ensure that there is a good understanding and knowledge of geological processes. We need to provide guidance and promotion for developing geological models and mechanisms, preferably 3-D ones that are of primary importance in the planning of engineering projects. As Engineering Geologists, this is exactly our great advantage. Being able to answer: "how is the ground?" and "how the ground works?".

Annotation Provided by Vassilis P. Marinos, the President of IAEG
Picture provided by the 14th IAEG Congress Organizing Committee



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Edited by the IAEG Secretariat, Shaoxing, China

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01. NEWS OF EXECUTIVE MEETING

IAEG Vice President Ranjan Kumar Dahal Visited Pakistan and India

Visit to Pakistan (October 23-29th, 2023):

Dr. Ranjan Kumar Dahal, IAEG Vice President representing Asia, conducted a significant visit to Pakistan, focusing on engaging with the newly formed National Group of IAEG. The agenda included discussions on fostering the development of engineering geological sciences within the country. A key highlight was the organization of a workshop at the Geological Survey of Pakistan, addressing topics such as geological hazards, site characterization, and risk assessment.

Workshop Highlights (October 24, 2023):

Led by Professor Dr. Mian Sohail Akram, General Secretary of the Association for Engineering Geology, Pakistan (AEGP), the workshop saw participation from diverse professionals, researchers, and stakeholders. Discussions centered on the roles of AEGP, strategies for development, and potential projects. Noteworthy presentations by industry experts Simor Sadiq and Ejaz Karim delved into GSP's efforts in landslides, hazard assessment, and AKAH's contributions in identifying and mitigating over 200 sites in the last decade.



Dr. Ranjan Kumar was honored with a memorial shield by Prof. Dr. Saeed Farooq on behalf of AEGP President Mr. Basit Masud, acknowledging his contributions to AEGP and his travels to Pakistan

Visit to India (November 19-22th, 2023):

Dr. Ranjan Kumar Dahal's visit to India was marked by the EGCON-2023 Conference in New Delhi, organized by the Indian Society of Engineering Geology (ISEG). The conference focused on "Addressing Geotechnical Challenges in Achieving Sustainable Development for Pumped Storage Hydro Power Projects." Esteemed speakers, including government officials from the Ministry of Power, shared insights on a wide array of geotechnical topics.

Conference Highlights:

The two-day conference featured 12 keynote lectures and 35 technical presentations, covering themes such as geological challenges, stability measures, investigation of pumped storage projects, and hazard mitigation. President S.L. Kapil highlighted ISEG's efforts to unite experts from India and neighboring countries. During the Annual General Meeting, ISEG agreed to launch a membership drive for IAEG, aiming to send a list of more than 500 members by 2024.

The visits and associated events facilitated a robust exchange of knowledge, expertise, and experiences among professionals in the geological and engineering fields. Dr. Ranjan Kumar Dahal's

engagements underscored the importance of international cooperation, emphasizing IAEG's pivotal role in advancing geological engineering globally.



Award Ceremony

02. YEG ACTIVITY

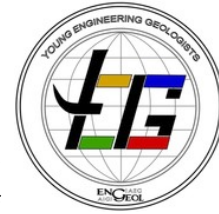
Call for YEG candidates

Are you interested to join our expanding network and collaborate on fruitful ideas related to Engineering Geology and the Environment? We are waiting for you!

The Young Engineering Geologists Committee was formally established by the IAEG council in 2016 and recognizes the younger (under 40) members of the IAEG. We are seeking new members for a 2-year term.

The YEG Committee is focused on promoting activities and engagements for younger members of IAEG as well as providing services to the young members.

For more information visit our website: <http://www.iaeg.info/yegs>



Young Engineering Geologists (YEG)

The YEGs are the active young member (under 40 years old) chapter of the IAEG. The YEG membership is represented by a dynamic network of YEG representatives from many regions around the world which form the local YEGs or national representatives. The Management Committee is the main core of the YEG network and they are responsible for the YEG outcome. Our goal is to promote the interests of young members and their involvement within the IAEG, by facilitating networking and organizing relevant events around the world. All under 40 Geo experts are invited to join our group.

Our objectives

- Provide worldwide leadership in Engineering Geology
- Be the voice of the international Engineering Geology profession
- Support, foster and communicate research, innovation and the practice of Engineering Geology
- Promote education and training in Engineering Geology and provide support to the profession
- Promote professional standards in Engineering Geology and provide networking opportunities for Engineering Geologists

Networking

- Facebook: <https://www.facebook.com/YEG.IAEG>
- Twitter: <https://twitter.com/realYEGs>
- YouTube: <https://www.youtube.com/channel/UC3MMLvyN4nAwg2ZDSmiXVlg>

How to Apply:

We are seeking current IAEG members under the age of 40 who want to be part of the international association which provides global leadership in Engineering Geology, facilitates professional development and to make new friends around the world.

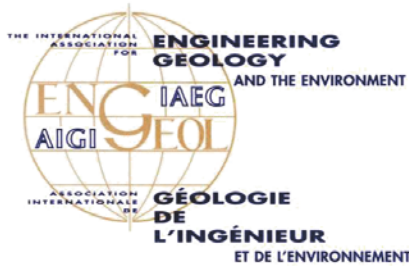
Your application needs to include:

How to become a member of the YEG-IAEG

- Short video presentation (5-10 minutes)
- The video should introduce yourself and your background and cover your proposed initiatives, ideas, and actions for the role.
- Short resume (2-3 pages)
- Official letter from National IAEG Group or the Vice-President of the region (Letter of support from the National Group of the candidate signed from the President)

Applications have to be submitted electronically to the YEG email (iaeg.yeg@gmail.com) by **31st of January 2024**. We especially encourage young female IAEG members from Africa and North America to apply.

03. ANNOUNCEMENT OF CLOSED IAEG COMMISSIONS



President:	Dr. Vassilis Marinos
Past President:	Prof. Rafiq Azzam
Secretary General:	Prof. Wu Faquan
Treasurer:	Dr. Jean-Alain Fleurisson
Vice Presidents	
Africa:	Prof. Moshood N. TIJANI
Asia:	Dr. Ranjan Kumar Dahal Prof. YongSeok SEO
Australasia:	Mr. Anthony Bowden
Europe:	Dr. Janusz Wasowski Dr. Helen Reeves
North America:	Dr. Julien Waeber
Latin America:	Prof. Victor Mammel

Professor Faquan Wu
IAEG Secretary General:
Shaoxing University
No. 508 Huanchengxilu, Shaoxing City, Zhejiang Province, 312000, CHINA
Tel/Fax: +86 -575 -8834 6551, Mobile: +86-13910509506
Email: iaegsg@163.com

Announcement of Closed IAEG Commissions

According to the evaluation results of IAEG Commissions made by the IAEG Advisory Board, I regret to inform that Commission 1, Commission 16, Commission 19 and Commission 20 have been assessed as inactive. Accordingly, the Executive Committee has agreed to close the four Commissions on account of their inactivity.

We formally announce that Commission 1, Commission 16, Commission 19 and Commission 20 are closed as of the date of this letter.

President of IAEG
Dr. Vassilis Marinos
School of Geology Faculty of Sciences
Aristotle University of Thessaloniki
Tel: +30 6944833898
Email: marinosv@geo.auth.gr

Date : December 14th, 2023

04. MEMBERSHIP UPDATE IN 2023

By December 31st, 2023 the number of IAEG memberships is 4828 from 68 national/regional groups. Springer.

VP	No.	NG/RG	total	Associate members
Anthony Bowden	1	Australia	409	0
	2	New Zealand	577	0
Janusz Wasowski	3	Albania		
	4	Austria	18	0
	5	Bulgaria	10	0
	6	Croatia	27	0
	7	Cyprus		
	8	France	105	5
	9	Georgia	14	0
	10	Greece	75	
	11	Hungary		
	12	Italy	91	0
	13	Portugal	65	1
	14	Romania	12	0
	15	Serbia		
	16	Slovenia	42	0
	17	Spain	28	0
	18	Switzerland	54	0
19	Turkey	139	0	
Helen Reeves	20	Belorussia	7	0
	21	Netherlands	28	0
	22	Lithuania	10	0
	23	The United Kingdom	345	
	24	Belgium	57	0
	25	Czech Republic	31	0
	26	Denmark		
	27	Estonia		
	28	Finland		
	29	Germany	457	0
	30	Iceland		
	31	Ireland		
	32	Norway		
	33	Poland		
	34	Russia	85	0
	35	Slovak Republic	6	0
	36	Sweden		
	37	Uzbekistan		
Moshood N. TIJANI	38	Algeria	4	0
	39	Nigeria	108	0
	40	South Africa	200	0
Julien Cohen-Waerber+	41	Canada	99	0
	42	USA	204	0

Victor Manuel	43	Argentina	17	0
	44	Bolivia	15	0
	45	Brazil	38	0
	46	Chile	39	0
	47	Colombia	11	0
	48	Costa Rica	20	0
	49	Mexico	5	0
	50	Paraguay		
	51	Peru	12	0
Ranjan Kumar Dahal & YongSeok SEO	52	Bangladesh	68	0
	53	China	587	0
	54	Chinese Taipei	50	0
	55	HongKong	8	0
	56	India	113	0
	57	Indonesia		
	58	Iran		
	59	Iraq		
	60	Japan	73	6
	61	Korea	83	0
	62	Malaysia	42	0
	63	Mongolia	10	0
	64	Myanmar		
	65	Nepal (NGS)		
	66	Nepal (NSEG)	149	0
		Singapore	145	0
	67	SEAGS	8	0
68	Vietnam	20	0	
Individual Member			6	
Associate Member			2	
Total			4828	12

05. NEWS OF NATIONAL / REGIONAL GROUPS

****ARGENTINA****

Editorial Issues

- During 2023, the website of the Journal has been updated (www.editoriasagai.org.ar) and the publication has achieved various indexing. Related to this topic, after several months of work and administrative procedures, a renewal process was carried out, through the implementation of new editorial quality standards.
- Its periodicity has been updated to continuous publication and one issue per year closes. This will allow accepted papers to be published immediately online, without waiting for a new issue to be published, which is of benefit to authors who will be able to access their published work more quickly.
- The journal has incorporated the Digital Object Identifier "DOI" that allows increasing the visibility of online publications and the level of citation, for a quick identification of works and their access.
- Besides, the journal has incorporated the Open Author Identifier "ORCID" (Open Researcher and Contributor ID). This unique identifier is essential for authors as it facilitates the normalization and disambiguation of names, avoiding authorship confusion, which improves the visibility and impact of their contributions.
- This Journal provides Open Access to its content and the reception of articles is permanently open.

****AUSTRIA****

- Organisation of the 15th International ISRM Congress 2023 & 72nd Geomechanics Colloquium - Challenges in Rock Mechanics and Rock Engineering, which will be held in Salzburg/Austria from 9.-14. October 2023 is in a final stage. Of the 18 proposed session topics two are in the field of engineering geology, i.e., Geological Investigation and Characterization and Geological Risks and Natural Hazards, and we could successfully acquire about 80 papers. In relation to a total number of paper submission of about 500 this shows the high interest of the engineering geology community on this international rock mechanics conference. For further information please visit the conference webpage: <https://www.isrm2023.com/en/>.
 - The workshop "Geotage Bischofshofen" took place in March 2023. Beside others, the main topic of this workshop was the role of natural hazards in engineering geology. It was a familiar and local happening with about 40 participants and a great success. The local workshop is held annually.
 - In Austria, the field of engineering geology is organized in two associations: The Austrian Society for Geomechanics (ÖGG) and Austrian Geological Society (ÖGG). In order to be able to manage the increasing organizational effort in a better and structured way, we intend to define responsible persons for the three respective associations, i.e., the IAEG and both ÖGGs.
- All three persons are in close contact with each other in order to ensure that the content and expertise of the work is consistent.

- Elections for the Geo-mechanical Society of Austria will be performed this year before September 2023.
- The team of the Austrian working group of engineering geology is involved in teaching activities at different Austrian universities, e.g., University of Natural Resources and Life Sciences in Vienna and University of Salzburg.
- We are an active member in the IAEG Commission No. 38 Rock mass Characterization with Emphasis in Rock Slope Hazards.
- Our aim is to bring enthusiasm to younger earth-scientists and engineering geologists as well as engineers at the interface natural processes and engineering.

****BANGLADESH****

IAEG_Bangladesh National Group (BNG) continuing professional talk by inviting speakers from different countries including Bangladesh, USA & Japan. As a part of this program IAEG_BNG invited Mr. Mir Fazlul Karim, President Geo-Eastern Inc., U. S. A." on the 16th Feb. 2023 at JU to present a talk on "Understanding the Structure & Tectonic Configuration of Bengal Basin Basin For Earthquake Magnitude Prediction". He highlighted the current status & importance of earthquake investigation and research for sustainable construction of Bangladesh. This scientific event had started with the welcome speech of IAEG_Bangladesh National Group President Prof. Dr. A.T.M. Shakhawat Hossain (as session chair) & vote of thanks by Departmental Chair. Participants, including geoscientists, academics, engineers and geoscience students and graduates were attended this interesting talk.

Japan & European Expert Association of climate change in association with Kagawa University, Japan also invited IAEG_Bangladesh National Group founding President Prof. Dr. ATM Shakhawat Hossain to present a webinar talk on "Monsoon Rainfall and Climate variability in the South Eastern Folded part of Bangladesh" Many participants from Europe and Japan attended this online event and the speaker shared his experience with colleagues of Japan and South Asian countries and highlighted the importance of climate change on society and sustainability.



Photo images of Mir Fazlul Karim's talk and participants at Jahangirnagar University

A seminar was held on the banner of IAEG Bangladesh National Group with joint collaboration between Kagawa University and Jahangirnagar University. Professor Dr.Toru Terao of Kagawa University, Japan presented a climate related technical talk at JU. His talk was attended by Geoscientists, Engineering Geologists & Student members from different organizations including Jahangirnagar & Dhaka University, Bangladesh Atomic Energy Commission & other Govt. organizations on the 1st March 2023. Participants including our IAEG_Bangladesh National Group Members, students & professionals were highly delighted with his talk and discussed the importance of climate change research in Bangladesh. Thanks to all the invited speakers for accepting our invitation.



Photographs of Seminar day of Prof Terao's talk at JU

Four geological engineering MS young student members and one faculty recently visited Japan under a joint collaboration program between JU geological engineering research group & Sakura Science Exchange Program of Kagawa University, Japan.



Photographs of Japan Vist of Young Geological Engineering members of JU

****BELARUSSIA****

Currently, the Belarusian national group IAEG has 6 collective members. In 2023, the group carried out its activities in accordance with the action plan of the Ministry of Education of the Republic of Belarus and the National Academy of Sciences of Belarus in coordination with the international work program of the IAEG.

On March 3, 2023, representatives of the Belarusian National Group IAEG took part in the 75th Regional Scientific and Practical Conference "Science - Education, Production, Economics" - the annual session of the faculty of Vitebsk State University named after P.M. Masherov, where the members of the national group presented the results of research work on topical issues of engineering and environmental geology of Belarus.

From May 25 to May 26, 2023, members of the IAEG national group took part in the work of the V International Scientific and Practical Conference "Geographical Aspects of Sustainable Development of Regions", held at the F. Skorina Gomel State University by the Faculty of Geology and Geography of the University with the support and participation of the Gomel Department of the Belarusian Geographic society, the Russian Center for Science and Culture in Gomel. The conference topics covered issues of physical and socio-economic geography, general and regional geology, problems of engineering geology, hydrogeology, geophysics, rational use of natural resources and environmental protection, nature management, etc. In total, 97 reports were announced by more than 100 authors from scientific and educational institutions of Belarus (GSU named after F. Skorina, VSU named after P.M. Masherov, Belarusian State University, Vitebsk State Order of Friendship of Peoples Medical University, Belarusian State University of Informatics and Radioelectronics, Baranovichi State University, Brest State Technical University, Brest State University named after A.S. Pushkin, Mozyr State Pedagogical University named after I.P. Shamyakin, Institute of Nature Management of the National Academy of Sciences of Belarus, Institute of Forestry of the National Academy of Sciences of Belarus, State Environmental Institution "Reserve of Republican Significance" Vydritsa ", Polesky State Radiation and Ecological Reserve), Russia (Moscow State University named after M. IN. Lomonosov, Southern Federal University, G.V. Plekhanov, Moscow State University of Civil Engineering, St. Petersburg State University, Russian State Hydrometeorological University, Tambov State University named after G.R. Derzhavin, Ryazan State University named after S.A. Yesenin, Yaroslavl State Pedagogical University named after K.D. Ushinsky), Azerbaijan (Institute of Geography named after Academician G. Aliyev of the National Academy of Sciences of Azerbaijan, Baku State University, Sumgayit State University, Institute of Soil Science and Agrochemistry of Azerbaijan), Uzbekistan (Tashkent State Technical University named after Islam Karimov, Navoi Mining and Metallurgical Combine), Republic of Moldova (Pridnestrovian State University named after T.G. Shevchenko), China (Lanzhou Transport University), etc.

Until the end of 2023, members of the Belarusian National Group IAIG will take part in the VI international scientific and practical conference "Actual problems of the Earth sciences: studies of transboundary regions", which will be held on October 26–28, 2023 on the basis of the Faculty of Natural Science of the BrSU named after A.S. Pushkin.

Chairman of the Belarusian National Group IAEG, PhD, DSc (Geology and Mineralogy), Professor
Secretary of the Belarusian National Group IAEG, PhD (Geology and Mineralogy), Associate Professor



Aleksandr Galkin



Irina Krasovskaya

****BOLIVIA****

Bolivia has concentrated their main activities on the following points:

1. Formation of the IAEG youth group.
2. Active participation in the foundation of the Institute of Earth Science in the University Gabriel Rene Moreno of Santa Cruz, Bolivia, is currently in the process of consolidation to initiate research activities and support scientific and academic activities in the areas of geology, biology, agronomy, mining and others.
3. Signing of Agreement with the Argentine Association of Geology Applied to Engineering ASAGAI.
4. Preparation and negotiation of agreements with institutions, professional associations and organizations involved in geological and environmental aspects.
5. Active participation in forums, discussions and debates in the area of hydrogeology and defense in relation to the aquifer recharge areas in Santa Cruz de la Sierra city.
6. Strategies for planning and attracting new members, both for the Committee senior, and young people, in the next Bolivian Geological Congress to be held in 2023 October in Tarija city (located to the south of Bolivia).
7. Thematic conferences have been held to university communities, disseminating Geological Engineering and the Environment.

****BRAZIL****

2023 ABGE JOURNAL (RBGEA–Revista Brasileira de Geologia de Engenharia e Ambiental)

RBGEA – Brazilian Journal of Engineering and Environmental Geology (Revista Brasileira de Geologia de Engenharia e Ambiental) published a set of papers dealing with relevant subjects to the development of engineering and environmental geology and related areas.

In order to be a reference vehicle for the dissemination of technical-scientific articles in Brazil, the RBGEA is online and open access and released every six months. With papers prepared by researchers, students and companies (public or private), the journal addresses reflections and technical-scientific advances related to the daily life of engineering and environmental geology (<https://www.abge.org.br/revista-rbgea>)



CURSO PRESENCIAL

Aplicação de Instrumentos Cartográficos na Prevenção de Desastres

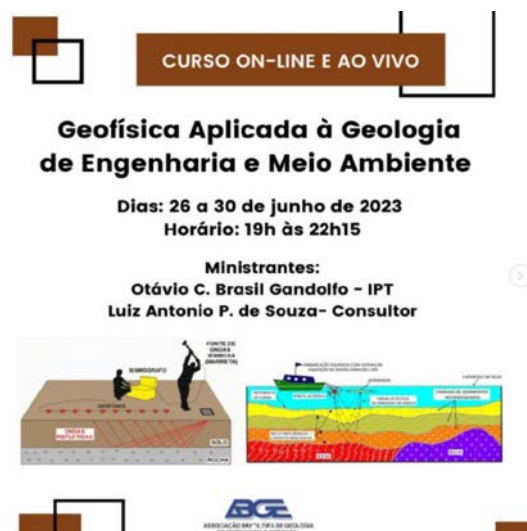
INSCRIÇÃO GRATUITA PARA SÓCIOS ABGE

Dia: 18 de abril de 2023
Horário: 08h30 às 17h

Ministrantes:
Anselmo de Carvalho Pedrazzi
Leandro Galvanese Kuhlmann
Luiz Fernando dos Santos

Realização: **ABGE** ASSOCIAÇÃO BRASILEIRA DE GEÓLOGIA DE ENGENHARIA E AMBIENTAL. Apoio: **SCB** SOCIEDADE BRASILEIRA DE GEÓLOGIA DE ENGENHARIA E AMBIENTAL.

Application of cartographic instruments in disaster prevention



CURSO ON-LINE E AO VIVO

Geofísica Aplicada à Geologia de Engenharia e Meio Ambiente

Dias: 26 a 30 de junho de 2023
Horário: 19h às 22h15

Ministrantes:
Otávio C. Brasil Gandolfo – IPT
Luiz Antonio P. de Souza – Consultor

ABGE ASSOCIAÇÃO BRASILEIRA DE GEÓLOGIA DE ENGENHARIA E AMBIENTAL.

Geophysics applied to Engineering Geology and the Environment

CURSO ON-LINE E AO VIVO

Digitalização e o BIM das Investigações Geológico-Geotécnicas

Dias: 10, 12, 17, 19, 24 e 26 de julho de 2023
Horário: 19h às 21h30

Ministrante
Giuliano de Mío




BIM in Geological and Geotechnical Survey

CURSO ON-LINE E AO VIVO

Introdução à Modelagem Hidrológica usando o HEC-HMS

Dias: 07, 09, 14, 16/08
Horário: 19h30 às 21h30

Ministrante
Filipe Falcetta






Introduction to HEC-RAS modeling

YOUTH ABGE COMMITTEE (ABGE JOVEM)

The ABGE Youth Committee, entitled ABGE JOVEM, created in 2020, is already a great success, totalizing more than 400 participants. Several webchats on engineering geology subjects were organized in 2022 and 2023:

- One technical meeting, via Zoom, regarding the legacy of Prof. Hasui
- Dinner at the Brazilian Congress for Young Members
- Badges with ABGE Jovem logo to promote the committee during the Brazilian Congress
- Technical sessions at the Brazilian Congress: Innovations & technologies and Women in Engineering Geology and The Environment
- Election of the new board, including president, vice-president and secretary
- Training course on geotechnical description of borehole samples

RESERVE A DATA!
ENCONTRO TÉCNICO:
O LEGADO DO PROF. HASUI E A APLICAÇÃO NO DIA A DIA DO PROFISSIONAL DE GEA
TERÇA-FEIRA, 30 DE AGOSTO, 19H
PELO ZOOM

CURSO DE DESCRIÇÃO GEOLÓGICA-GEOTÉCNICA DE TESTEMUNHOS DE SONDAGEM





****BULGARIA****

***ANNUALLY ACTIVITY REPORT
Of
Bulgarian National Group of IAEG
For 2022/2023***

During the past annual period 2022-2023, the activity of the Bulgarian National Group could be summarized in several directions.

The specialists from the Bulgarian national group participated in many lectures and discussions regarding problems on the territory of Bulgaria related to natural disasters in 2022/-2023 and the construction of large – road and railway constructions.

Their work was directed in two directions:

P

- 1) Preparation of Reports related to the future construction of infrastructure objects.
- 2) Expert, logistical and technical assistance for municipalities affected by natural disasters.

Sincerely Yours
Assoc. Prof. Kiril Anguelov
President of the BNG of IAEG



****CANADA****

Division Activities in past year

- Scott McDougall was awarded the Thomas Roy Award for 2023 to be announced at CGS2023 GeoSaskatoon.

A total of 3 nominations were received from the EGD membership.

EGD finalized a definition for Engineering Geology, which to date has been published in the CGS E-News – May 2023, the IAEG Newsletter - Issue No.1 2023, and Summer 2023 edition of Canadian Geotechnique. The Tunneling Association of Canadian has also expressed an interest in publishing in their magazine or newsletter.

- During the reporting period, the EGD Executive had regular correspondence and an in-person AGM in the Fall, and the EGD Vice Chair, Chair, and two Members-at-Large attended the Fall CGS Board meeting.

Division Objectives / Future Activities

- Define Engineering Geology (and associated branches etc.) and harmonize this definition with provincial, national, and international standards – Definition has been finalized; will continue to circulate for information/feedback, e.g., circulate to National Affiliates listed in Section 4.
- Evaluate a potential name change of the division to include Geological Engineering, as part of defining the division membership and their scope of practices – Carry over from previous annual report, to be discussed at GeoSaskatoon.
- Proactively solicit nominations for EG awards including Thomas Roy Award, Hans Cloos Medal, Richard Wolters Prize, etc. - Ongoing initiative, some progress made. Will work on revising qualification criteria for Thomas Roy Award.
- Young Members Initiatives. A proposal to fund participation of students to CGS conferences will be put forward to make it more affordable and accessible, including options from local chapter sponsorship and engagement in Executive and Divisional activities – Carry over from previous annual reports, need to re-evaluate, no action taken on this for several years.
- Engineering Geology in Canada website /on-line Monograph – Carry over from previous annual reports, need to re-evaluate, no action taken on this for several years.

Additional information or comments

- Very appreciative of the efforts and support provided by the current CGS National Executive.
- Andrew Peach attended 2023 IAEG Executive Committee and Council Meetings held on September 21st as National Representative online.

****CHILE****

The Chile National Group was admitted to IAEG in 2020. The National Group is conformed by the Asociación Chilena de Ingeniería Geológica (Chilean Association of Engineering Geology) or ACHIGEO. The following list summarizes the activities of ACHIGEO since the last report in September 2022:

- We have taken part in periodic online meetings of the IAEG Latin-American regional group.
- We are in charge of the organization of the 2nd IAEG Latin-American Regional Conference. This is being organized jointly with the XVII Pan-American Conference on Soil Mechanics and Geotechnical Engineering, in charge of the Chilean Society of Geotechnics. The conference will take place in La Serena, Chile, in November 2024. Currently, we are in the process of calling for abstracts (July 2023) and full papers (November 2023).
- We are also leading the organization of the Applied Geoscience section of the XVI Chilean Geological Congress (November 2023), with several sessions and coordination of the editorial review process.
- The next ACHIGEO Annual Assembly will take place in November 2023, with the elections of a new executive committee.

****CHINA****

1.Important Working Meetings

(1)The Preparatory Meeting for 2023 IAEG Mid-Year Executive Committee Work Meeting, February 2, 2023

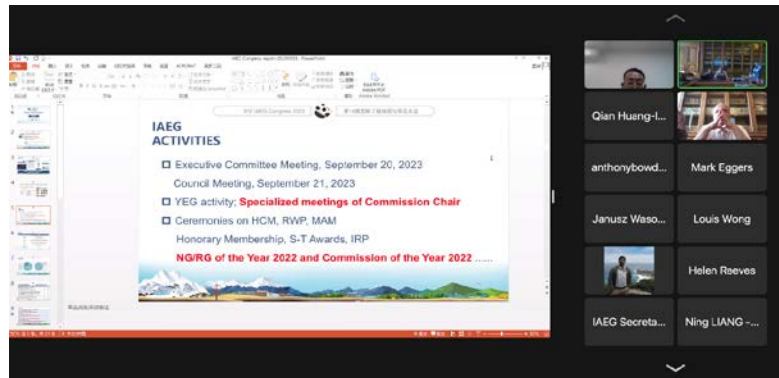
On the evening of February 2, 2023, IAEG held an online preparatory meeting for the 2023 Mid-term Executive Committee work meeting, presided over by new elected IAEG President Vassilis Marinos. Prof. Shengwen Qi, secretary general of IAEG China NG reported about IAEG XIV Congress in four aspects: global publicity, full paper submission, organizational work and alternative plan under epidemic situation. And SG of IAEG, President of IAEG China National Group Prof. Faquan WU made supplementary instructions.



Online meeting

(2) The 2023 IAEG Mid-Year Executive Committee Work Meeting, May 3-4, 2023

After long-term travel restriction effected by pandemic, the IAEG Executive Committee for term 2023-2026 has successfully met on-site this year in Paris. A very effective two days work meeting of IAEG Executive Committee was held in Mines Paris Tech, Paris, France on May 3rd-4th, 2023. The president of IAEG, Vassilis Marinos chaired the meeting. SG of IAEG, President of IAEG China National Group Prof. Faquan WU attended the on-site meeting. Prof. Shengwen Qi, secretary general of IAEG China NG reported about IAEG XIV Congress online.



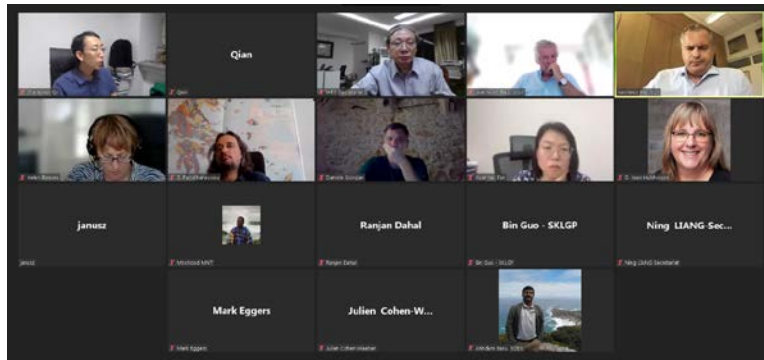
Prof. Qi attended and reported online

(3) The Mid-June Executive Committee Work Meeting, June 19, 2023

Proposed and chaired by IAEG President Vassilis Marinos, the Mid-June ExCom work meeting is held online on June 19th, 2023. The main items for the meeting include two parts:

- 1) Follow up the actions we discussed at the Paris meeting (please check the minutes for concluded further actions);
- 2) Report from the organizing committee of the IAEG XIV Congress

Secretary General of IAEG, President of IAEG China National Group Prof. Faquan WU, Secretary of China National Group Shengwen Qi, Secretary General of Organization Committee, IAEG XIV Congress Prof. Xuanmei Fan attended the meeting. About the IAEG XIV Congress, Prof. Qi, who is behalf of IAEG China NG, made a brief report on the general progress. And them Prof. Fan joined the further discussions with more details. IAEG ExCom expressed affirmation and gratitude, and put forward feasible suggestions on academic arrangements and financial planning.



Online meeting

(4)The 7th Director Working Meeting of the 11th Engineering Geology Committee of Geological Society of China, March 13, 2023

The 7th Director Working Meeting of the 11th Engineering Geology Committee of Geological Society of China (EGC-GSC) was held on March 13, 2023 online. Director of EGC-GSC, Prof. Huiming Tang, and other about 20 Vice directors and representatives attended the meeting and discussed related issues on IAEG XIV Congress.

(5)The 8th Director Working Meeting of the 11th Engineering Geology Committee of Geological Society of China, April 21, 2023

The 8th Director Working Meeting of the 11th Engineering Geology Committee of Geological Society of China (EGC-GSC) was held on April 21, 2023 online. Director of EGC-GSC, Prof. Huiming Tang, SG of IAEG, President of IAEG China National Group Prof. Faquan WU, Secretary of China National Group Shengwen Qi and other about 20 Vice directors and representatives attended the meeting and discussed related issues on IAEG XIV Congress especially on the effort to optimize the field trips in addition with the Three Gorges Reservoir area, the Loess Plateau and the Qinghai-Tibet Plateau routes.

(6)DDE-EG-CHN Group organized DDE-EG-CHN workshop during the DDE (CHINA) assembly 2023 in Hangzhou in March, reaching consensus and suggestions on discipline optimization, March 20-23, 2023

On March 20-23, 2023, the DDE (CHINA) assembly 2023 was held at Zhejiang University in Hangzhou, Zhejiang Province. Representatives of DDE-EG-CHN Group with achievement posters attended this work promotion meeting.



DDE (CHINA) Assembly 2023



Achievement posters from DDE-EG-CHN

On the afternoon of March 22nd, the DDE-EG-CHN Group held a workshop. The meeting was chaired by Professor Huiming Tang, Director of the Engineering Geology Committee, China Geology Society and Leader of the DDE-EG-CHN Group. The DDE PI Academician Wang Chengshan and Consultant of the DDE-EG-CHN Group Academician Peng Jianbing were both invited, and delivered speeches and participated in discussions. Representatives of working groups of the DDE-EG-CHN group and members of the secretariat attended the workshop.



Academician Wang Chengshan and Academician Peng Jianbing had friendly communications (L)



Prof. Tang Huiming presided over the workshop (R)

Associate Professor Li Langping from the Secretariat gave a brief report on the DDE-EG-CHN Group, introducing the initiation, actions, and progresses. Subsequently, the leaders or representatives of each working group reported backgrounds, progresses, issues, and future plans of each working group. Professor Wang Yunsheng, Prof. Li Xingyue, Prof. Qi Shengwen, Prof. Xia Kaiwen, Prof. Zhao Weihua and Prof. Yu Chen respectively reported on the progress and annual plan of working groups on the regional engineering geology, soil engineering geology, rock engineering geology, specialized engineering geology, geological disaster engineering geology and intelligent engineering geology. The meeting also invited relevant experts from the Big Knowledge Group, Big Data Group, Big Platform Group, and Intellectual Property Group of DDE to consult and coordinate work.

The meeting discussed the identification name of the DDE-EG-CHN Group, the construction plan of the database group, and the discipline system structure of the DDE-EG-CHN Group. It also discussed the updated plan of the engineering geology and environment discipline system structure, further suggested new discipline system structure and selected responsible personnel.



Group photo on the DDE-EG-CHN workshop

Prof. Tang Huiming, the leader of the DDE-EG-CHN Group, gave a general report at the closing ceremony, which was highly praised by Academician Chengshan Wang, Chairman of the DDE Executive Committee.



Prof. Tang's report at the closing ceremony

2.The Main Academic Activities for 2024

- (1)Publication of The Journal of Engineering Geology with 6 issues
- (2)National Engineering Geology Congress
- (3)2024 Joint member meeting of Engineering Geology Committee, CGS and IAEG China National Group
- (4)The 15th National Engineering Geology High Level Forum
- (5)The 2nd Liu Guochang Lecture
- (6)IAEG YEG-China and WEG-China promotion and so on.....

CHINESE TAIPEI REGIONAL GROUP

1. Translate “EGM Guidelines” documented by C25 into Traditional Chinese:

Commission 25 of IAEG documented the “Guidelines for the development and application of engineering geological models on projects” at the end of 2023. The Engineering Geology Research Society, Geological Society located in Taipei worked together with Sino-Geotechnics Research and Development Foundation and Chinese Taipei Geotechnical Society to translate this Guideline into

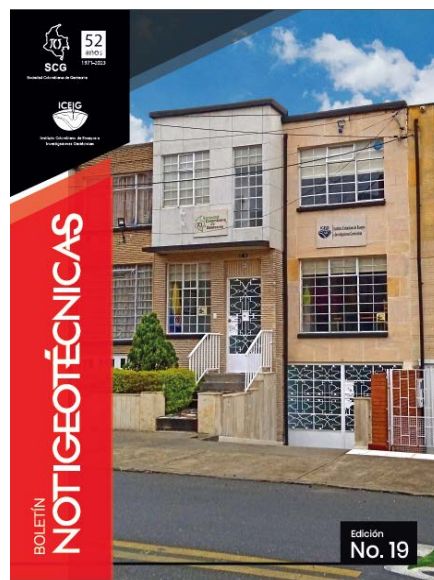
Traditional Chinese. We invited several young engineering geologists and geotechnical engineers to translate the Guideline and reviewed by senior researchers and practitioners. We start to promote this Guideline within our society and collect the suggestions if any to feed back to C25.

2. Taiwan Rock Engineering and Engineering Geology Symposium: Oct. 19-20 2023

On May 5th to 6th 2022, the original Rock Engineering symposium incorporates engineering geology and hereafter officially transformed into Taiwan Rock Engineering and Engineering Geology Symposium. We have received the opening greetings from Vice President Hui-Ming Tang and Bo An-Jang. This year, the Taiwan Rock Engineering and Engineering Geology Symposium will be held in Oct. 19-20 2023 by National Yang Ming Chiao Tung University, Taiwan. The official website is: <https://www.geo2023.conf.nycu.edu.tw/>. We looking forward to having this important event and wish to having more participants from the IAEG family all around the world.

COLUMBIA

Columbia National Group published Noti geotechnical Bulletin No. 19 with recent information of interest. Please refer to <https://www.dropbox.com/scl/fi/gir4qk519tbknczlco5dz/Bolet-n-Notigeot-cnicas-N-19.pdf?rlkey=7trle2sbrjwk44gm3qstvzzzz&dl=0> for the bulletin.



COSTA RICA

Dr. Sergio Mora Castro's book **Geodinámica externa: Aspectos geomecánicos**, hidrogeológicos climáticos y del riesgo (External Geodynamics: Geomechanical, hydrogeological, climate and risk aspects), has just been awarded, by unanimity, the **JUAN MANUEL CAGIGAL Medal**, edition 2022, by the National Academy of Engineering and Habitat of Venezuela (Academia Nacional de la Ingeniería y Hábitat de Venezuela), as "the best textbook in Engineering". Please find here-attached the Letter of Declaration, dated September 25th, 2023.

The book is available at several electronic stores and bookshops, such as:

Amazon: https://www.amazon.com/gp/product/B0B728KLNN/ref=as_li_tl?ie=UTF8&creativeASIN=B0B728KLNN&linkCode=as2

Apple: <https://books.apple.com/us/book/id6443185056>

Google: <https://play.google.com/store/books/details?id=xYV8EAAAQBAJ&PAffiliateID=1100lcQHW&gl=us>



****CROATIA****

Zagreb, September 5th 2023

4th European Regional Conference of IAEG (EUROENGEО 2024), will be held from October 8th to 12th, 2024 at Hotel Dubrovnik Palace in Dubrovnik. The conference is organized by the Croatian National Group supported by Croatian Geological Survey, Croatian Geological Society and University of Zagreb which have large experience in organizing such a big event.

Based on the theme of “Engineering Geology and Geotechnics: Building for the Future” the conference will focus on the latest research and innovation in engineering geology and geotechnics, highlighting the challenges and opportunities for sustainable infrastructure development. The main aim is to bring together professionals from the fields of engineering geology and geotechnics to share knowledge, discuss challenges, and present innovative solutions to complex engineering problems that meets the needs of present and future generations. By doing so, the conference will contribute to the development of sustainable and resilient infrastructure that can withstand the challenges of the future, such as climate change, population growth, and urbanization.

The conference will be organized with the collection of extended abstracts and full papers, exhibitions and field trips. Call for abstracts will be published in February 2024.

The main topic of the conference is:

- Site investigation and characterization for sustainable infrastructure development
- Engineering Geology and Cultural Heritage Protection
- Emerging technologies and applications in engineering geology and geotechnics
- Geohazard assessment and risk mitigation for infrastructure projects

- Engineering Geology for the Society
- Geological and geotechnical challenges in urban development and construction
- Environmental geology and geotechnical engineering for natural resource management
- Advances in geological modelling for engineering applications
- Geo-aspects of earthquake engineering

****CZECH REPUBLIC****

Current Activities

1. Conferences, webinars, workshops, courses, etc.

Note: all of the following events were co-organised by Charles University and the IAEG NG. Hybrid events took place at the Faculty of Science in Prague and online (Google Meet). Online events took place on Google Meet. The events were advertised to the NG members, students of engineering geology, faculty staff, members of relevant institutes of the Czech Academy of Sciences, and on the social media of the University.

- 12 January 2023 – Seminar on "Spatial and temporal distribution characteristics of landslides in Turkey", by Tolga Gorum, Istanbul Technical University, Turkey. Hybrid event.
- 17 February 2023 – Special lecture on "Geoethics and sustainability", by Gianvito Scaringi, Charles University, Czech Republic. Online event.
- 25 April 2023 – Co-organisation of session GM3.3 "Benchmark datasets for landslide susceptibility zonation" at the EGU General Assembly in Vienna, Austria (co-convener: Marco Loche). Hybrid event.
- 27 April 2023 – Co-organisation of session NH3.4 "Deciphering landslide activity and slope-atmosphere interaction in a changing climate" at the EGU General Assembly in Vienna, Austria (co-convener: Gianvito Scaringi). Hybrid event.
- 04 May 2023 – Seminar on "Consequences of CO2 Intrusion into Groundwater: Modeling, test and remaining issues", by LianGe Zheng, Lawrence Berkeley National Laboratory, USA. Online event.
- 10 May 2023 – Seminar on "Coastal erosion and heritage", by Tom Dawson, Joanna Hambly, Sara Boyd, University of St. Andrews, Scotland, UK. Hybrid event.
- 19 May 2023 - Seminar on "Badland Systems, A holistic approach to understanding their formation, controlling factors, and geomorphologic characteristics", by Aydogan Avcioglu, University of Potsdam, Germany. Hybrid event.

2. Upcoming events

During the next period, we plan to co-organise seminars, lectures, and short courses based on agreements that will be made with colleagues from international institutions and professional companies during the fall and winter. We will continue our tradition of special lectures on the history of our discipline and challenging ethical questions. We plan to increase the involvement of specialists and professionals from outside the academic world to realise knowledge transfer not only from scientists to professionals but also vice versa.

We also plan to co-organise one or two sessions at EGU 2024.

****GERMANY****

Events with the participation of IAEG-GER 2023

1. Conferences, webinars, workshops, courses, etc.

- Congress of the German Geological Society DGGV, GeoBerlin, Aug. 03-08, 2023, "Geosciences Beyond Boundaries - Research, Society, Future", including geological field trips, see www.geoberlin2023.de for details
- 4th German Geotechnical Society DGGT Section Days, Germany, Sept. 12-13, 2023 Conference on Engineering Geology and Forum for "Young Engineering Geologists" – The 3 best presentations will be awarded, organized by the IAEG German National Group, see www.fachsektionstage-geotechnik.com
- IAEG Congress Sept. 21-27, 2023 "Engineering Geology for a Habitable Earth" in Chengdu, China. www.iaeg2023.org for details
- ISRM Congress Salzburg, Oct. 09-14, 2023: "Challenges in Rock Mechanics and Rock Engineering", see www.isrm2023.info for details; joint sessions with the Austrian IEAG National Group (Prof. Zangerl)

Further activities

- Support of the work and cooperation in the State Chambers of Engineers elaborating regulations for the registration of ground engineering professionals and professionals on safety structures against natural hazards
- Commissions: support on presenting outcomes at national and international congresses
- Cooperation with DGGT board in internal affairs, problems and disputes
- Updating the new blog: news, reports on conferences & meetings; information on current work of the Working Group
- Considering membership's requirements and suggestions

****GREECE****

Activities

- The Greek National Group of IAEG organized a workshop on 30th of March 2023, entitled: "The contribution of Engineering Geology to the modern challenges of the Anthropocene era". The workshop was very successful as it was attended by more than 250 participants from both academia and industry. During the workshop, the NG represented by its president Prof. Constantinos Loupasakis, awarded a prize to Dr. Nikolaos Kazilis for his long-standing contribution in the development of Engineering Geology. The workshop was organised in three sessions. The first two sessions consisted from oral presentations on Engineering Geology topics concerning northern Greece from colleagues from universities, public Authorities and companies from industry. The third session was dedicated to oral presentations of recently completed or on-going PhD theses from Young Engineering Geologists.



Andreas Kaplanidis, Past Chairman of the National Group, awarded at the opening of the Special Session organized by the National Group at the 16th International Congress of the Geological Society of Greece



The Poster of the workshop on 30th of March 2023, entitled: “The contribution of Engineering Geology to the modern challenges of the Anthropocene era”.



View of the amphitheater of the workshop on 30th of March 2023



Dr. Nikolaos Kazilis delivering his key lecture.

- The committee of the National Group of Greece is in continuous contact with its members and informs them for congresses, scientific meetings, lectures and engineering geological developments. Apart from this continuous communication by e-mail, the official website of the Greek National Group (www.eetg.gr) is updated with the activities, news and other information related to Engineering Geology in Greece. Information related to the application for becoming a member of the Greek IAEG National Group is also given in the website.

****HONG KONG REGIONAL GROUP****

1.	14 Jan 2023	Congratulations Letter to the Geological Society of Guangdong on their 70th Anniversary	GSHK Geological Society of Guangdong
2.	28 March 2023	Letter of Support to HKU on "Site trial of an artificial intelligence rock type classification and fracture state characterization APP for engineering applications"	HKU
3.	21 April 2023	Technical Seminar "Site trial of an artificial intelligence rock type classification and fracture state characterization APP for engineering applications"	HKU (Dr. Louis Wong)
4.	6 May 2023	Field Trip to High Island Reservoir East Dam	AFCD / GSHK
5.	20 May 2023	The 1st Hong Kong Secondary School Geology Contest	HK Discovery / GSHK
6.	9 August 2023	Technical Site Visit Trunk Road T2 and Cha Kwo Ling Tunnel – Sub-sea Tunnelling by Tunnel Boring Machines	CEDD / Meinhardt

****INDIA****

The Indian Society of Engineering Geology (ISEG) orchestrated a resounding success with EGCON-2023, an International Conference held in New Delhi on November 20 and 21. Focused on "Addressing Geotechnical Challenges in Achieving Sustainable Development for Pumped Storage Hydro Power Projects," the event gathered professionals, including engineers, academics, and geoscientific experts from India and Nepal.

The two-day conference showcased 12 keynote lectures and 35 technical presentations exploring various geotechnical aspects. Esteemed speakers, including officials from the Ministry of Power, Government of India, shared insights into advancements and challenges in the field. Notably, President S.L. Kapil highlighted ISEG's dedication to uniting regional experts and announced a

membership drive for IAEG during the Annual General Meeting.

Established in 1965, ISEG, with 56 years of commitment to promoting Engineering Geology, has been a key player in organizing international congresses, notably in 1982 and 2015. EGCON-2023 stands as a testament to India's influence in the realm of engineering geology and marks a significant stride towards sustainable development in geotechnical practices.



Participants on EGCON-2023

****JAPAN***

Obituary



It is with great sadness that Professor emeritus of Tokyo University and the previous IAEG Vice-president for Asia, Prof. Kojima Keiji, passed away on 3rd August 2023, 85 years old.

He served as IAEG Vice-president for Asia from 1991 to 1994. Prof. Ricard Oliveira was the IAEG president, and Prof. Paul Marinos was Vice president for Europe at that term. In 1992, Japan National group invited both two persons to the IAEG council meeting at Kyoto, Japan. After the IAEG Vice-president, prof. Kojima Keiji was engaged as the President for Japan Society of Engineering Geology (JSEG) from 1994 to 1997. He started his career from the first memorable IAEG Asian regional conference held in Tokyo in 1997 participated with Dr. Daiei Inoue.



IAEG Council Meeting in Lisboa, Portugal, 1994
(with Daiei Inoue (on the left))

He completed his master's degree in geology at the University of Tokyo in 1963, joined the Public Works Research Institute of the Ministry of Construction, and in 1970 was transferred to the same university as a lecturer in the Faculty of Engineering, where he received his PhD in 1972 and was promoted to the professor in 1984. After the honor of the emeritus professor, retired from the university in 1998, he founded and headed the Institute for the Geospatial Research in the same year, and has achieved at the forefront as a leader and advisor to related industries until the end of his career. He served as

Vice President of IAEG Asia Region from 1991 to 1994 and President of JSEG from 1994 to 1997, greatly contributing the international development to applied geology in Japan.



Field Excursion in Ishinomaki, Japan, 1996
(with Takao Chaishi (on the right))

He initially focused on the discipline of applied geology, which is based on geological principles linking to the safe design of social infrastructure. Applied geology encompasses many fields, including civil engineering geology, hydrogeology, natural resource geology (petroleum, mining, etc.), environmental geology, and related exploration and analysis techniques, and he is a very rare person who was evolved in all of them. He has also been connecting to Japanese organizations relevant to industry, government, and academia, and has played a leading role in many national projects as a committee chairman. Among others, the Honshu-Shikoku Bridge, the Trans-Tokyo Bay Highway, the Okinawa Ocean Expo, and the National Petroleum Underground Reserves are his representative concerned projects.

He published many books, including "Practice and Foundation of Geological Technology" (Kajima Publishing Co., Ltd. 1995) and "Nature's Fury / Nature in Japan Vol. 8" (Iwanami Shoten 1986).

Meanwhile, he stopped smoking cigarettes and started riding a road bike upon his retirement. In his New Year's greeting cards and seasonal newsletters, he posted photos of his bicycle trips, showing that he was in good health.

In the rapidly changing and developing postwar world of Japan, he rode long, brazenly, and dynamically with conviction. We pray for his soulful rest in peace.

Collaboration between Korea Society of Engineering Geology (KSEG) and JSEG

In the Special session 2, Prof. Yong-Seok Seo, President of the Korean Society of Engineering Geology and of Chungbuk National University had a presentation titled "Current activities and research issues of engineering geology in Korea". He introduced his overseas survey experiences, and education at the university in South Korea for students who want to become geotechnical engineers. Participants asked many questions and engaged in a lively discussion.

A career design seminar was also held, as in the previous year. In order to foster young human resources in the field of engineering geology, senior engineers introduced their own career as one of their role models, after which participants exchanged opinions with each other in group work.



Prof. Seo answers questions from a participant.

2023 Annual assembly and Symposium of JSEG

The 2023 Annual Meeting of JSEG (Japan Society of Engineering Geology) was held on October 5 and 6 in Akita city was successfully completed with the following schedule. This year's meeting was again held in a hybrid format of on-site and online sessions.

Akita Prefecture is located in northwestern Japan and is blessed with beautiful nature throughout the four seasons. Akita is also famous for its rice production. Furthermore, it has mineral, oil and natural gas, and geothermal resources, as well as many hot spring resorts with beautiful and relaxing hot springs.

Akita City, the site of the meeting, is located in central Akita Prefecture, facing the Sea of Japan to the west.

In addition, the Oga Peninsula, located in the northwestern part of Akita Prefecture(<https://geopark.jp/en/>), is a Geopark certified by the Japan Geoparks Network. Some participants visited Oga Peninsula as fields trip.

The total number of participants was 343, of which 56 were online. There were 93 oral presentations and 44 poster presentations.

Date	Contents
October 4 (Wed)	As pre-event: Young Engineers Networking Event, Career Design Seminar and Earth Salon (exchange of opinions)
October 5 (Thu)	Research Presentation (Day 1) As a special lecture, Dr. Hikaru Fujii, Dean of the Graduate School of International Resource Sciences, Akita University, presented "Current Status and Future Prospects of Geothermal Utilization."
October 6 (Fri)	Research presentations (Day 2)
October 7 (Sat)	Field Trip "Geological History of the Oga Peninsula: From the Cretaceous to the Quaternary Sea-level Changes"

The meeting consisted of 12 sessions for presentations and Q&A on civil engineering geology, geomorphology/geology, disaster geology, groundwater, geological disposal, and surveying/measurement.

In addition, four special sessions were held as follows;

- Special Session 1 "100 Years of the Great Kanto Earthquake and Earthquake Hazards in the Region from the Viewpoint of Engineering Geology"
- Special Session 2 "The Involvement of Engineering Geology in Natural Hazards and Social Systems in Asian Region"
- Special Session 3 "Engineering Geology of Volcanic Regions"
- Special Session 4 "Urban Development in the Integration of Science and Engineering and the Future of the Japan Society of Engineering Geology"

Aidan Omer, Professor Emeritus of Ryukyu University and Vice President of ISRM, and Junghae Choi of Kyungbuk National University were invited to speak in Special Session 2.

The impetus for proposing this special session was the Turkey-Syria Earthquake that occurred on February 6, 2023. The earthquake and subsequent aftershocks that occurred near the Syrian border in southeastern Turkey claimed many lives. Millions of people were left homeless and are still displaced.

Disasters are believed to be caused by a combination of fragile social systems and geomorphological and geological features. Such areas are found not only in Turkey but also in many other Asian regions.

In the session, case studies on disaster investigation and disaster management in Nepal and Taiwan were presented, followed by discussions on natural disasters and engineering geology in Asia, and the contribution of engineering geology in disaster management.

This year was also a great success with the Young Engineers Networking Event, Career Design Seminar, and the "Earth Salon," an intergenerational exchange event.



Scenes of 2023 Annual Meeting



Young Engineers of JSEG



Young Engineers Networking Event



Career Design Seminar



"Earth Salon"

Scenes of Young Engineers Networking Event, Career Design Seminar, and the "Earth Salon"

****KOREA****

Activities during 2023

(1)KSEG (Korean Society of Engineering Geology) National conference for 2023

2023 spring conference of KSEG was held in Jeju Island on April 6-7, 2023 with 172 participants and 74 papers. This conference was offered as an off-line conference for the first time after spring, 2019. During the conference, the invited talk was delivered by Prof. Hyungsoo Kim (Jungwon University) titled "The efficient way of ground water use: focused on hydrogeology and geophysical survey". In addition, the special session on radioactive waste under-ground treatment was offered by 3 Korean experts including Dr. Byunggon Chae (KIGAM), Dr. Kyungwoo Park (KAERI), and Dr. Junghwan Lee (KORAD).



Spring conference, 2023

(2)New President of KSEG for 2023-2025 was Elected

During the conference, the new president of KSEG for 2023-2025 was elected. The new president is Prof. Hyuk-Jin Park (Sejong University), and he will serve as the president of Korean Society of Engineering Geology from September, 2023 to August, 2025.



Prof. Hyuk-Jin Park President of KSEG 2023-2025

****NEPAL (NSEG)****

Nepalese Society of Engineering Geologists (NSEG) 5th Anniversary and 1st National Engineering Geology Day Celebration Program

The Nepalese Society of Engineering Geologists (NSEG) celebrated its 5th Anniversary and the 1st National Engineering Geology Day at [Venue] on October 11, 2023. The program was graced by the presence of distinguished guests and experts from various governmental and academic institutions, including the esteemed Chief Guest, Honorable Minister Prakash Jwala, Ministry of Physical Infrastructure and Transport (MoPIT). The event was a significant milestone for NSEG, reflecting its dedication to advancing the field of Engineering Geology in Nepal.

The program was honored by the presence of several eminent personalities, including the Special Guests, Honorable Dr. Gangalal Tuladhar, Member of Constitutional Assembly, Former Minister of Education and Member Expert of the National Disaster Risk Reduction and Management Council, Secretary Mr. Keshav Kumar Sharma of MoPIT, Dean of the School of Science Dr. Janardan Lamichhane from Kathmandu University, and Chairman of Nepal Engineering Council (NEC) Dr. Padam Bahadur Shahi. The esteemed presence of these dignitaries added prestige to the event.

More than 40 esteemed guests and 130 members of NSEG actively participated in the program, reflecting the enthusiastic engagement and support for the society's endeavors.

NSEG acknowledged the exceptional contributions of Mr. Govinda Sharma Pokharel and Mr. Achyut Koirala by awarding them the NSEG Distinguished Career Awards. Additionally, Ms. Asmi Marhaththa and Mr. Sudhan Kumar Subedi were honored with the NSEG Thesis Award for their remarkable research in the field of Engineering Geology. Mr. Milan Kumar Rai was awarded for his contribution in Logo Design of NSEG.

The program featured enlightening lectures by Mr. Pokharel and Mr. Koirala, highlighting their extensive professional experiences as Engineering Geologists in Nepal. Dr. Ranjan Kumar Dahal,

the President of NSEG, Vice President of IAEG, and the Founder President of NSEG, also delivered a thought-provoking lecture, focusing on the challenges of engineering geological reports in Nepalese infrastructure projects and proposed effective modifications.

Various other professional societies representatives such as Dr. Hari Bahadur Darlami (President, Nepal Engineers' Association), Dr. Mandip Subedi (President, Nepal Geotechnical Society), Dr. Padam Bahadur Shahi (President, Society of Transport Engineers Nepal and president of Nepal Engineering Council), Dr. Rajan Suwal (President, Structural Engineers' Association, Nepal), Er. Tuk Lal Adhikari (President, Society of Consulting Architectural & Engineering firms, Nepal), Dr. Parameshwari Kattel (General Secretary, Nepal Mathematical Society) delivered a congratulatory message to NSEG during program. Er. Shushil Babu Dhakal, Director General of the Department of Roads, Government of Nepal also congratulate NSEG in the program.

IAEG President Vassilis Marinos also sent a congratulatory message to NSEG for its 5th Anniversary and 1st National Engineering Geology Day. NSEG members were excited to read his message in the program.

President's message for Congratulations on Nepalese Society of Engineering Geologists's (NSEG), serving as National Group of IAEG, 5th Anniversary & First National Engineering Geology Day!

Dear Members and Friends of the NSEG,

I am delighted to extend my warmest congratulations to all of you on the occasion of NSEG's **5th Anniversary** and the inaugural celebration of **First National Engineering Geology Day**. This remarkable milestone is a testament to the dedication, passion, and hard work of the entire Engineering Geology community of Nepal.

Engineering geology plays a vital role in shaping our world, ensuring the safety and sustainability of infrastructure projects, protecting our environment, and managing geological hazards. NSEG has been at the forefront of advancing the field and fostering collaboration among professionals, researchers, and enthusiasts who share a common commitment to the principles and practices of engineering geology.

Over the past five years, NSEG has grown exponentially, uniting individuals from diverse backgrounds and regions under a shared vision of promoting excellence in engineering geology. The progress made in research, education, and outreach initiatives is commendable and reflects the collective efforts of NSEG members.

The establishment of the National Engineering Geology Day (NEG-Day) is an exciting development that will raise awareness about the importance of engineering geology in our daily lives. It offers an opportunity to engage with the broader community, share knowledge, and inspire the next generation of engineering geologists.

As the President of the International Association for Engineering Geology and the Environment (IAEG), I am proud to see NSEG's achievements and its commitment to the betterment of the field. IAEG is committed to supporting and collaborating with organizations like NSEG to advance the science and practice of engineering geology globally.

I encourage you all to continue your exceptional work, foster innovation, and uphold the highest standards of professionalism in the years to come. Together, we can contribute to a safer, more sustainable world through the application of engineering geology principles.

Once again, congratulations on this momentous occasion. I look forward to witnessing the continued growth and success of NSEG and the meaningful impact you will make in the field of engineering geology of the Himalayas.

Warm regards,
Dr. Vassilis P. Marinos, President of IAEG
V. Marinos

ENCGEOL
N S E G
5th YEARS ANNIVERSARY
October 11, 2023
1st NEG DAY
Oct 11 2023

The main program commenced at 4:30 PM, culminating in the inaugural ceremony of the 1st National Engineering Geology Day, inaugurated by the Honorable Minister. The event concluded successfully, signifying the dedication of NSEG to promote excellence and innovation in the realm of Engineering Geology in Nepal.

A significant proposal for the enrollment of Nepalese Engineering Geologists in the Nepal Engineering Council as Registered Engineering Geologists was made by Honorable Dr. Gangalal Tuladhar. The enthusiastic response from the NSEG members indicates the importance and relevance of this request for the field of engineering geology in Nepal. Dr. Tuladhar heightened the inclusion of Engineering Geologists within the Nepal Engineering Council as Registered Engineering Geologists

can enhance the professional recognition and regulation of this specific field in Nepal. He clarified that this move can contribute to maintaining and improving the quality and standards of geological engineering practices in the country. Honorable Minister Prakash Jwala said it would be interesting to follow up on any developments or decisions regarding this proposal and to understand how it might positively impact the engineering and geological sectors in Nepal during his inauguration speech.

NSEG extends its heartfelt gratitude to all the distinguished guests, IAEG President, participants, and members for their active involvement and support, making the 5th Anniversary and 1st National Engineering Geology Day Celebration Program a memorable success.



Honoring Mr. Govinda Sharma Pokharel with NSEG Distinguished Career Award for life-long contribution to Engineering Geological Science.



Honoring Mr. Achyut Koirala with NSEG Distinguished Career Award for life-long contribution to Engineering Geological Science.



Group Photo of Nepalese Society of Engineering Geologists (NSEG) 5th Anniversary and 1st National Engineering Geology Day Celebration Program

Group of WEG and YEG in NSEG

In 2023, NSEG implemented the formation of two groups based on recommendations from the IAEG Executive Committee. The Young Engineering Geologists (YEG) group was established under the coordination of Mr. Shankar Pantha, while the Woman Engineering Geologists (WEG) group was formed with Ms. Anjila Babu Malla as the coordinator in NSEG.

To ensure effective representation, the NSEG executive committee stipulated that the secretaries of both YEG and WEG must be executive members of NSEG. As a result, Mr. Rajan Mahat was appointed as secretary of YEG, and Ms. Kabita Maharjan was appointed as secretary for WEG.

Furthermore, it was decided that in each term, the executive committee would nominate both the coordinators and secretaries for YEG and WEG.

Collaborations and future strategies

Since January 1, 2023, Dr. Ranjan Kumar Dahal, the Founder President of NSEG, has been elected Vice President (Asia) for the IAEG Executive Committee's term from 2023 to 2026. NSEG is confident that Dr. Dahal's role as Vice President will bring about numerous opportunities for Asian National groups within IAEG, and NSEG aims to promote collaboration among these groups.

As part of their collaborative efforts, NSEG is actively collaborating with the Bangladesh National Group of IAEG to organize the 15th Asian Regional Conference of IAEG, scheduled in Dhaka from November 27 to 29, 2025. Additionally, this year, NSEG will work closely with the International Consortium on Geodisaster Reduction (ICGdR) and soon announce the program for an international symposium scheduled for 2026. NSEG intends to organize in-person events as part of its lecture series. The main objective of these events is to disseminate knowledge and expertise in the specialized engineering geology field. Through these lectures, NSEG intends to provide a platform for experts and professionals to share their insights, research findings, and experiences, fostering a deeper understanding of engineering geology among participants. These events are expected to attract students, researchers, and industry practitioners keen to stay updated with the latest advancements and best practices. By hosting these gatherings, NSEG aims to strengthen the community of engineering geologists and drive further innovation and collaboration in the industry.

****NETHERLANDS****

Meetings of the members:

- 17 February 2023- General assembly meeting
- 17 February 2023- Ingeokring Get together! event at Royal Boskalis Westminster in Papendrecht

Series of lectures on Engineering geology at the Fehmarnbelt tunnel project (from geology to dredging, challenges of reclamations, environmental challenges and monitoring the spills, rock works)

Awards and activities for young people:

- Ingeokring best MSc Thesis award to TU Delft MSc student Niels Walrave

****PAKISTAN****

IAEG Vice President Dr. Ranjan Kumar Dahal Boosts Engineering Geology Initiatives in Pakistan

Dr. Ranjan Kumar Dahal, the Vice President of IAEG, concluded a strategic visit to Pakistan from October 23 to 29. The visit focused on strengthening collaboration with the newly formed IAEG National Group in Pakistan and exploring initiatives to advance engineering geology in the country.

During discussions with the Association of Engineering Geology, Pakistan (AEGP), Dr. Dahal emphasized strategies for fostering the development of engineering geological sciences. A key event was a workshop at the Geological Survey of Pakistan (GSP) on October 24, addressing geological hazards, risk assessment, and mitigation strategies.

The workshop, led by Professor Dr. Mian Sohail Akram, General Secretary of AEGP, featured presentations by GSP and AKAH representatives. Dr. Dahal outlined the benefits of AEGP's IAEG affiliation, emphasizing growth, networking, course revisions, and the establishment of Young Engineering Geologists (YEG) and Women Engineering Geologists (WEG).

The visit concluded with expressions of appreciation from Deputy Director General Adnan Alam, and Dr. Dahal was honored by AEGP and GSP.



Workshop During RanjanKumar Dahal's Visit

A field visit along the Islamabad-Murree Motorway identified engineering geological concerns and showcased practical applications, highlighting the visit's contribution to collaboration and knowledge exchange in Pakistan's engineering geology community.



Field Trip to the Islamabad-Murree Motorway

****PERU****

IAEG Activities in 2023

In 2023, IAEG Peru actively contributed to geotechnics and geosciences. Key highlights include organizing the 2nd Peruvian Geoscience Olympiad, launching MinerLima2023, hosting webinars, and participating in international events. The year also featured important coordination meetings, discussions on geotechnics, and celebrations, demonstrating IAEG Peru's commitment to advancing the field.

Perspectives

IAEG Peruvian Group initiatives for 2024, aimed at promoting geotechnical research and geotechnics awareness in Peru and beyond.

The highlight of our calendar is the "First Peruvian Biennial on Geotechnics" in Lima, themed "Geotechnics for Prevention and Sustainability," scheduled for August 2024. Under the coordination

of Ing. Pedro Isique, this event will bring together geotechnical experts and professionals to discuss cutting-edge practices and advancements in the field.

In a joint effort with IAPG Latin America, the biennial will also host the inaugural "Latin American Symposium on Geoethics," striving to foster a culture of geoethical values in the workplace. This symposium seeks to raise awareness and inspire responsible conduct among geoscientists.

Visit the Biennial website at <https://iapgperuviansection.wixsite.com/bienalperugeotecnia/inicio> for more details and updates.

To stay connected with global geotechnical advancements, we will actively participate in meetings initiated by IAEG Vice-President for South America, Victor Hernandez, and continue to encourage the engagement of Peruvian colleagues in IAEG activities worldwide.

IAEG Peru remains committed to our mission of advancing geotechnical expertise and ethical practices, ensuring a sustainable and responsible future for our profession and the geoscientific community at large.

****RUSSIA****

Conferences and workshops

1. In 2023, the XXIVth annual scientific conference in commemoration of past President IAEG, academician RAS Evgenii M. Sergeev (24th Sergeev readings – Sergeevskie chteniya) was held in Russia. The conference discussed "Fundamental and Applied Issues of Engineering Geodynamics" and was held on March 30-31, 2023 in Kazan. The conference was traditionally organized by the Sergeev Institute of Environmental Geoscience RAS and the Scientific Council RAS on the problems in environmental geoscience, engineering geology and hydrogeology; and it was hosted by the Kazan State University. The organizing committee of the conference was headed by Academician RAS V.I. Osipov and Prof. Dr. E.A. Voznesensky. During the conference, 40 oral reports were presented within 1 plenary and 6 section sessions. The conference was organized in a mixed format. It was attended in person by 126 participants from 11 cities of Russia and Kazakhstan; and by 20 on-line listeners via the conference website. The scientific program of the conference was followed by the post-conference engineering geological tour in the Kazan karst area. Traditionally, the Sergeev medal "For contribution to the development of engineering geology" was awarded at the conference to 3 reputable geoscientists: Dr. A.V. Anikeev, Dr. E.N.Samarin, and Dr. D.S. Drozdov. Proceedings of the conference (in Russian only) are available for free downloading on the website: www.sergeev2023conf.ru.



Fig. 1 Participants of the 24th Sergeev readings, Kazan, Russia, March 30-31, 2023.

2. Organization of the 2023 ICL Kokomeren Summer School is on the way and more than 30 participants confirmed their attendance in the field training course that will be held from August 14 till August 29, 2023



Fig. 3. Dr. V. Shanina among the participants of XXIV International scientific and practical conference "Actual problems of ecology and environmental management", Moscow, RUDN, April 20-22, 2023.

Members of the Russian national group took part in a number of international and All-Russia workshops, namely

- 2022 iRALL School in SKLGP, Chengdu, China (Prof. A. L. Strom)
- XXIV International scientific and practical conference "Actual problems of ecology and environmental management", Moscow, RUDN, April 20-22, 2023 (Dr. V. Shanina)
- International scientific conference of students, postgraduates, and young professionals "Lomonosov-2023", April 10-21, 2023, Moscow, Russia (Dr. V. Shanina)

Other international activities

Members of the Russian NG are involved in the work of IAEG Executive committee (Prof. E.Voznesensky), YEG Committee (Dr. A. Kazeev), IAEG Commissions nos. 21, 24, and 29 (Prof. V.Osipov, Dr. O. Zerkal, Dr. A. Strom). During the reported period Dr. A.Strom gave a course of lectures on rock avalanches, rockslide dams and active faults in SKLGP, Chengdu, China (online). He also participated in writing the paper "Revisiting landslide risk terms: the C- 37 G landslide risk multilingual glossa" written by the international group of researcher led by Prof. Jordi Corominas (was submitted to the Bulletin of the IAEG). No less than 10 submissions have been uploaded by the Russian NG members for participation in the XIV IAEG Congress in Chengdu, China (September 21-27, 2023) and the Russian scientists have registered for participation in this major event in person.

SINGAPORE

18th Annual General Meeting

The 18th SRMEG AGM was held on 3 March 2023 at NUSS Suntec City Guild House. A Seminar on "Ueyes: A New Solution for Detection of Underground Anomalies" by Dr. Wu Wei, Nanyang Technological University, was also conducted for the members.

Monthly Webinars

The Society organized monthly webinars for its members and the industry:

Date	Topic	Speaker
24 February 2023	Tunnelling in Hong Kong – 2023 to 2028 Challenges and Opportunities for Tunnelling in Hong Kong	YC Lam, ATKINS
31 March 2023	Concrete Technology Restrained Cracking – Problems & Sustainable Solutions	Takayuki Higuchi, Denka
28 April 2023	Concrete Technology Sustainability Analysis of FRC Structures – Case Studies & MIVES	Albert de la Fuente, and Andrea Monserrat, C3S
12 May 2023	Underground Innovations ecoro: An autonomous, fully electric transport system for palletized goods underneath the surface	Daniel Daum, ecoro
23 June 2023	Underground Design Principals of Ground Support for Tunnels	Leo Ariza, Jacobs
30 June 2023	Concrete Technology Correct EN 12390 testing of hardened concrete and the most common mistakes	Hans-Heinrich Reuter, TESTING Bluhm and Feuerherdt GmbH

18th ACCUS Conference 2023

SRMEG won the right to host the 18th World Conference on Associated Research Centers for the Urban Underground Space (ACUUS2023 Conference). The conference date has been set as 1 – 4 November 2023 at Suntec Singapore Convention & Exhibition Centre. An exciting and extensive program is being planned which will feature technical sessions with invited world-renowned keynote speakers over 3 days. Pre-conference workshops and training courses are also incorporated into the program. We are happy to announce that the second EUUS conference will be co-located with ACUUS 2023. This will feature urban geology and urban geophysics in the overall program. In collaboration with Shanghai Municipal Engineering Design Institute (Group) Co Ltd (SMEDI), the "Shanghai Declaration" will be signed during this conference.

The combined conference will be presented as a hybrid attendance format with the possibility of satellite on-site sessions in other countries outside of Singapore.

SWEDEN

Obituary of Vale Barry J Cooper (September 1948-October 2023)

It is with great sadness we record the passing away of the Heritage Stone Task Group founder Prof. Barry J Cooper.

The proposal to designate natural stones that have achieved widespread utilization in human culture was first mooted by Barry in late 2007 and first presented in a public forum at the 33rd International Geological Congress (IGC) in Oslo in July 2008 and started as a task group in IAEG C10 Building stones. Over the next four years, a network of international correspondents was created, circulars were distributed, a website was established (by Barry and his son), and formal rules were adopted, all with the focus of establishing the 'Global Heritage Stone Resource' designation. A closer collaboration with IUGS was also established.

It was during the 2012 34th IGC in Brisbane that the IUGS recognised a new aspect of geoheritage with the formal establishment of a "Heritage Stone Task Group" or HSTG. The Heritage Stone Task Group was comprised of the first international group of geologists, under the auspices of IUGS and IAEG, to consider building stone and ornamental rocks, otherwise known as "dimension stone".

Formally, the Heritage Stone Sub-commission (HSS), a sub-commission of the IUGS International Commission for Geoheritage were approved by IUGS at the IGC in Cape Town in 2016. Barry was the first Secretary General of our newly formed sub-commission on Heritage stones.

In contrast to other IGCs, known for their focus on mining resources, the 2012 session was a defining moment for the HSTG.

The HSTG later progressed to become the Sub-commission on Heritage Stones following the 2015 publication of the Geological Society of London Special Publication 407 Global Heritage Stone: Towards International Recognition of Building and Ornamental Stones, edited by Dolores Pereira, Brian Marker, Sabina Kramar, Barry Cooper, and Bjorn Schouenborg. This was a pioneering volume that consisted of 21 papers and an Introduction that brought the subject of heritage stone and the Global Heritage Stone Resource designation to a general geological audience (Hannibal et al. 2000).

For those of us who have had the privilege to know Barry, this is a time to reflect and celebrate the amazing person that he was.

Bjorn Schouenborg shared this anecdote about Barry: "during an IGC meeting in Cape Town I started to call Barry 'Battery Cooper'. He was very similar in action as the Duracell rabbit promotion - if you have seen it, always running ahead of us. Occasionally he lost contact with those us who couldn't keep up with his pace but all for the benefit of Heritage Stones!"

Margaret Brocx shared that Barry was inspirational in initiating research on building stones and geoheritage which later led to the presentations and subsequent publications, e.g., Brocx M & Semeniuk V 2017. Building stones can be of geoheritage significance.

'Antônio Gilberto shared, I will always remember the defenses that Barry made for the memory of our stones'

Gurmeet Kaur remembers interacting with Barry during the Salamanca Stone Workshop, and found him inspiring, encouraging and passionate Heritage Stones leader.

Our condolences to Barry's family at this time. I know that on behalf of all of those that knew Barry, he will always be remembered as being unwaveringly focused on what he wanted to achieve, with grace. He was an inspiration to all of us!

(by Margaret Brocx, Bjorn Schouenborg, Antonio Gilbert and Gurmeet Kaur)

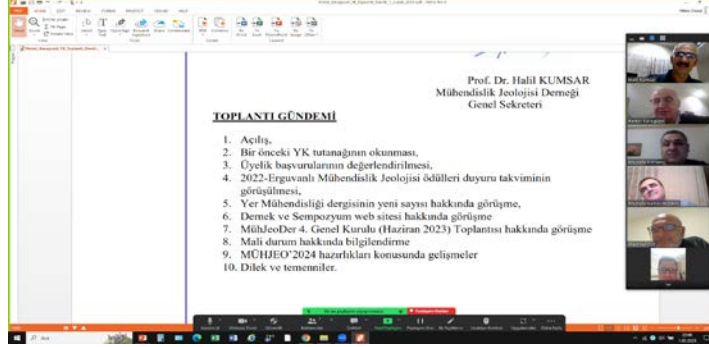


****TURKEY****

1.1 Meetings of the Executive Committee

The executive committee of the NG has convened three times in 2023, on February 01, April 16, and May 31, under the chairmanship of Prof. Dr. Remzi Karagüzel, to discuss the agenda of the year.

During the MühJeoDer meetings held on February 1st and April 16th, the event agenda was also discussed regarding the national symposium MÜHJEO'2024. At the meeting on April 16th, it was decided that the symposium will take place in Nevşehir from June 6th to 8th, 2024 with the joint contributions of Nevşehir Hacı Bektaş Veli University and the Engineering Geology Association. A protocol was signed between the mentioned university and the NG. Thus, the preparations for the symposium gained momentum.



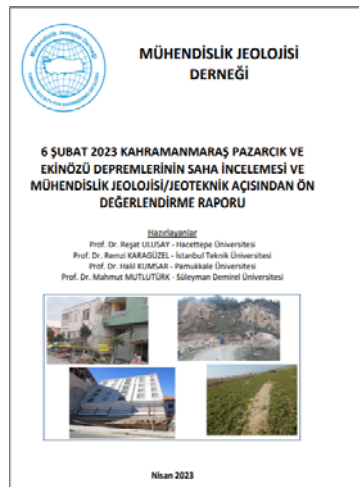
The view of executive committee online meetings

1.2 The Audit of the Activities and Expenditures of the Association

The activities and expenditures of our association have been audited by the Ministry of Interior-General Directorate of Civil Society Relations, Ankara Provincial Directorate. The audit process was successfully completed by addressing minor discrepancies that were observed.

1.3 Preliminary Assessment Report for the Earthquakes in Kahramanmaraş Pazarcık and Ekinözü on February 6, 2023

A technical team formed by the NG conducted observations and examinations along a specific route in the earthquake-affected area from February 21 to February 25, 2023. The team prepared a report containing preliminary assessments and recommendations. The abstract of the report is given below. The full report has been shared with our members and readers on the MühJeoDer website. It has also been submitted to the Ankara Governorship Department of Associations.



The Abstract of Preliminary Assessment Report for the Earthquakes in Kahramanmaraş Pazarcık and Ekinözü on February 6, 2023

ABSTRACT: On February 6, 2023, a seismic event with a moment magnitude (Mw) of 7.7 occurred near Kahramanmaraş, Turkey, at 04:17 local time. Nine hours later, a second destructive earthquake of Mw 7.6 struck the same region with its epicenter near Elbistan. These earthquakes, which occurred as a result of the movement of certain fault segments within the Eastern Anatolian Fault Zone, were named the Pazarçık Earthquake for the first event and the Ekinözü Earthquake for the second event. Over 10,000 aftershocks were recorded following these earthquakes, affecting a total of 10 provinces.

According to official records, the Kahramanmaraş earthquakes caused a significant impact, with the number of fatalities exceeding 50,000 and 107,204 individuals reported injured. Additionally, 61,722 buildings were declared to have collapsed entirely or suffered severe damage due to the earthquakes. Transportation structures, industrial facilities, energy lines, infrastructure elements, and other structures were also damaged. Further phenomena that occurred during or after the Kahramanmaraş earthquakes are mass movements such as landslides and rockfalls, soil liquefaction, and lateral spreading which adversely affected surface and buried structures.

1.4 Erguvanlı 2022 Engineering Geology Awards

The Erguvanlı 2022 Engineering Geology Awards announcement, which recognizes outstanding achievements in the field of engineering geology, including completed design projects/theses, master's theses, doctoral theses, and articles published in internationally peer-reviewed journals, has been released. The announcement has been distributed to all registered members of our Association, as well as public institutions and organizations, geology engineering departments at universities throughout Turkey, relevant professional chambers, and associations.



Banner of the Erguvanlı 2022 Engineering Geology Award announcement

1.5 4th Ordinary General Assembly of the NG in Ankara

The IV. Ordinary General Assembly Meeting of the Engineering Geology Association convened on June 3, 2023, in Ankara. The agenda items of the General Assembly were discussed, and the executive committee and audit committee were elected.





The view of the new board's first online meeting on June 11, 2023

On July 26, 2023, the board again convened through Zoom online meeting platform to discuss the jury members and referees for the "Erguvanlı Engineering Geology Awards 2022".

1.6 Preparations for the Engineering Geology and Geotechnical Symposium - MÜHJEO'2024

Preparations have commenced for the Engineering Geology and Geotechnical Symposium - MÜHJEO'2024, which is scheduled to take place in Kapadokya and Nevşehir from June 6 to June 8, 2024, with joint contributions from Nevşehir Hacı Bektaş Veli University and our NG. In this context, a meeting was held on July 26, 2023, using the Zoom platform, with the participation of the NG executive committee and the faculty members of the Geological Engineering Department at Nevşehir Hacı Bektaş Veli University.



The view from the preparation meeting of the Engineering Geology and Geotechnical Symposium - MÜHJEO'2024

2. IAEG Young Engineering Geologists (YEG) in the NG

Tümay Kadakci Koca, a member of the Young Engineering Geologists (YEGs) committee, also serves as the Turkey representative, has established an email group and a LinkedIn social media group to include young members of the NG. At regular intervals, she shares current information and updates related to IAEG.

During the 2023 period, the following international activities were carried out:

- IAEG e-newspaper called for short articles (maximum 2 pages) from young members to be published once a month. The received articles will be published in the IAEG e-newspaper after editorial editing.
- On May 2, 2023, an onsite IAEG-YEG committee meeting was held in Paris. During this meeting, two candidates were selected as recipients of the "Travel Grant," which is planned to be awarded annually to young members who wish to participate in the IAEG summer school. It was decided to maintain communication with IAEG regional and national presidents for connecting the young members worldwide.
- From June 5 to June 8, 2023, at the 84th EAGE Conference and Exhibition in Vienna, Tümay Kadakci Koca interacted with companies, individual professionals, and professional groups as the YEG representative at the exhibition stand.
- During the 14th IAEG Congress to be held in China from September 21 to September 27, 2023, a separate session will be dedicated to "Young Engineering Geologists". In this session, young researchers will come together to share knowledge on various topics.

3. Website and Social Media Accounts of the NG

NG website is <http://muhjeoder.org.tr/>. The website is being updated and improved to promote interest in NG. Dynamic and rapid actions to collaborate on new ideas are addressed by the NG to keep up with the fast-growing world of technology and information.

In the context of an alternative communication between the members, social media accounts are also used like Facebook (<https://www.facebook.com/people/M%C3%BChendislik-Jeolojisi-Derne%C4%9Fi/100064771296407/>).



In addition, the Turkish young engineering geologists are communicating with each other via a LinkedIn group and circular mail.

****UK****

Links with Other Organisations

Prestigious annual event The Glossop Lecture & Award

In 2022 the Glossop Lecture took place at the Royal Institution on the 23rd of November. An audience of just over 115 people heard the 22nd Glossop medalist, Prof John Harrison, give the Glossop Lecture on 'Are you sure? An excursion through uncertainty in rock engineering'. It was especially pleasing that the event was honoured by the presence of Rudolf Glossop's family, Ms. Emma Slack, who presented the Glossop medal to Prof Harrison. The event was a success, and the live streaming was well received both nationally and internationally.

The 25th Glossop Award (awarded to fellows of the Geological Society less than 10 years post graduate work experience) was awarded this year to Carla Martin-Clave, who gave an excellent presentation "The role of Engineering Geology in the Energy Transition".

Meetings

EGGS/IAEGUK held a 2-day annual conference from 25th to 28th March 2023. This was hosted at Christ's College, Cambridge. The theme of the meeting was "Engineering Geomorphology, Geomaterials and the Ground Model: The Peter Fookes Legacy". The event commenced with a field trip on Saturday, presentations on Sunday afternoon, Monday and Tuesday morning. A conference dinner was held on the Monday night in Christ's College Hall. A total of over 80 delegates attended the conference. It is planned to repeat the event in 2024.

EGGS/IAEGUK also ran a evening meetings. EGGS/IAEGUK also webcast a number of the evening events this year. A summary of the events is given below:

2023

- January – David Giles "QRA The Wiley Lecture 2023 "Quaternary Engineering Geology - Are we there yet "A joint meeting with the QRA.
- March - Stephan Jefferis "Case histories on the impacts of chemical and microbiological processes in geotechnical engineering." A joint meeting with the BGA.
- March - Annual Engineering Group's Conference
- July – Amir Abbasi "The Wembley Coal Mine"

Attendance at a number of the above listed technical meetings was again lower than expected. To address this, EGGS/IAEGUK have launched a series of initiatives including the development of our outreach and publicity through social media and the introduction of a post-meeting networking event with suitable refreshments. We now have a presence on LinkedIn, Facebook and Twitter as well as our usual email distribution list via the Jiscmail service. We routinely stream our meetings. EGGS/IAEGUK want to facilitate learning but also develop relationships so physical attendance at meetings is strongly encouraged. All of our meetings are now recorded and made available on our dedicated YouTube channel (<https://www.youtube.com/channel/UCCnMUX38GDEG0EQnQWqtYcw>).

Working Parties

EGGS/IAEGUK has four working parties established and working on: -

- Engineering Geology of Groundwater in Design and Construction - chaired by Ian Duncan. The chapters are now completed. Figures and plates are being finalised with an aim for the publication to be published in 2024.
- Offshore Site Characterisation: Engineering Geology, Geomorphology & Geohazard - chaired by Chris Martin. The chapters are now completed. Figures and plates are being finalised with an aim for the publication to be published in 2023.
- Nearshore & Coastal Engineering Geology, Geomorphology & Geohazards (CANEGGG) at Steering Group Stage, chaired by Chris Martin.
- Impact of weathering in engineering geology, chaired by Ursula Lawrence. The planning for this publication has just started. This publication has an estimated date for publication of 2027.

USA

AEg's 2023 Annual Meeting is being held at the in Portland oregon, on September 19-24. The theme

of this year's event in Portland is "Hazards in Hindsight...Lessons for the Future".

The GSA 2023 annual meeting will be held in Pittsburgh, Pennsylvania, on October 15-18.

AEG continue to provide their members with access to various resources in the form of webinars and short courses. AEG provides regular webinars and short courses for continuing education and professional development on a number of technical and professional topics. The webinars are available to anyone, but AEG members are able to attend at no cost and recordings of the webinars are archived and available on the AEG website. Short courses are also available to all, but members may receive discounted rates to attend.

AEG and EEGD also provide their members with access to valuable publications. The journal Environmental and Engineering Geoscience is a joint AEG/EEGD quarterly publication of peer-reviewed articles and book reviews. EEGD also co-sponsors with GSA the publication Reviews in Engineering IAEG Annual Report of the United States of America National Group for 2023 Geology. The "AEG News" is a quarterly publication with various technical commentary, short case histories and association news showcasing the activities of local chapters at the national stage. Similarly, the EEGD produces its own newsletter. Submissions are encouraged!

Young members and student members are the future of the AEG and GSA. Dedicated young and student member events are held at each AEG and GSA national meetings with a general focus on mentorship and professional development. They are a highlight that many look forward to each year. More regularly, local AEG chapters across the country hold student and young member events, which contribute greatly to AEG's student chapters remaining active and engaged. Of course, Key faculty members are essential to the formation and continuity of these student chapters. In recognition of their value, AEG and GSA are proud to offer membership to students and early career professionals at a greatly discounted cost. AEG offers free membership to students and discounted membership to early career professionals for three years after completion of their degree. EEGD offers discounted membership to students and to early career professionals for six years after completion of their degree. These discounted memberships are a significant encouragement to future membership and an important reason for strong student participation year over year.

The AEG Foundation (<http://www.aegfoundation.org>) administered 19 student scholarship funds and multiple grant programs for professionals. Foundation awarded \$56,050 in 2022 for scholarship, education, and outreach.

****VIETNAM****

1) Sustaining and developing local subchapters of VAEGE at major cities, universities, provinces in the northern, middle and southern Vietnam via local meetings, seminars and different activities of engineering geology investigations, say, for landslides, land subsidence, earthquake, rare earth elements, digital transformation and energy transition in geoscience and geoengineering etc.

2) Increasing interaction and networking with IAEG by email communication, distribution of IAEG information to all the VAEGE members (in particular the 2023 IAEG Congress in Chengdu). VAEGE has raised a number of issues to the IAEG secretary and Vice-president for Aisia to be considered/improved by IAEG, e.g., the benefits of IAEG membership and better communication from IAEG to individual member. Regarding the International IAEG membership, VAEGE has openly and officially called for application of international membership of IAEG in its news group. As a result, in 2022 the total number of IAEG members is 33. Unfortunately, in 2003 the number has dropped to 20, partly because some of the members are not very convinced of membership benefits. Hopefully with some actions that were taken lately the membership will increase in the next years. VAEGE has actively supported IAEG YEG Committee and nominated one member to join it, Dr. Nguyen Thanh Duong, a

faculty member from Hanoi University of Mining and Geology (HUMG).

3) Supporting and collaborating with the Vietnamese Society of Soil Mechanics and Geotechnical Engineering (VSSMGE) in organizing the well-known 5th international conference of Geotech Hanoi 2023 on Geotechnics for Sustainable Infrastructure Development December 14-15, 2023 - Hanoi, Vietnam by participating into the Scientific Committee, providing with the review service etc. as seen at: <https://geotechn.vn/>

4) Organizing the VIETGEO 2023 Conference on Engineering Geology for Sustainable Development from 28 to 29 September, 2023 at Hue City in collaboration with Hue University. VIETGEO 2023's major topics include: Engineering Geology, Geotechnical Engineering and Hydrogeology; Civil Engineering and New Materials; Geo-risks, Early warning and Monitoring Technology; Natural resources, environment and digital transformation; Drilling and production technology;

06. NEWS OF COMMISSIONS

****Commission 10****

New Initiative

During 2023 a new initiative is planned: Short reports of stone research and industrial activities from different member countries.

Involvement In Standardisation

At a European level, members of the C10 are working to update product standards and standards on testing relative to stone products according to the new Construction Product Regulation (CPR). Standards within CEN TC 246, 178 and 128 are continuously under revision. Many test methods have been developed to evaluate material properties and not product properties. The CPR requires the properties of the products, not the material, to be declared with CE-marking (documented product quality control with testing according to defined intervals). This is still a challenge to many stone companies despite being introduced in 2013.

The latest news in standardisation is that an ISO Technical Committee has started for global standardisation of natural stones (ISO/TC 327 - Natural stones). The first standards on test methods are being drafted for water absorption, density and porosity. Maybe, more interesting for IAEG C10 is the working group on Terminology. For more information, contact David Burton, chair of the working group (david.burton@tuffbau.com). We need your help in that group to make it really a Global activity!



The first physical ISO TC 327 meeting held in Alicante, Spain. Representatives from Italy, Sweden, Spain, China, USA and UK were present. Online India and Brazil participated.



Participants in the VII Global Stone Congress. Here during a visit to Marfilpe quarry in Portugal



Left: Björn Schouenborg at the congress.



Right: Technical visit: Dinosaur, footprints of Megalosauripus, Portugal

Commission 17

Activities

- The Commission chairperson (Prof. Dr. Atiye Tugrul) attended the Seventh Edition of the Global Stone Congress in Batalha, Portugal, from June 18 to 23, 2023, and visited two-dimension stone quarries and production plants.
- The "BETON 2023 Ready Mixed Concrete Fair" will take place from November 8 to 11, 2023, in Istanbul, Turkey. An Aggregate Session chaired by the Commission's President is scheduled for this event.
- The Commission is planning an online aggregate meeting.
- AGUB (Turkish Association for Aggregate Producers) is planning to organize a Symposium and fair on Aggregates.
- The commission plans to organize an online aggregate symposium next year.
- Commission Activities will be generally focused on the green deal, responsible sourcing, and responsible mining that mainly relate to engineering geological studies. An International Project on these subjects is planned.
- We are planning to improve our relations with UEPG Aggregates Europe.
- Efforts to update and improve the website are ongoing.

****Commission 21****

Goals of C21:

1. Review and collect examples of risk assessment and geohazard evaluation in permafrost regions.
2. Develop new methodologies for risk assessment and geohazard evaluation in relation with permafrost change.
3. Document new methodologies and guidelines for permafrost mapping related to engineering geology goals.
4. Network with practitioners and academics with an interest in permafrost problems world-wide.

Past year's activities and meetings:

The unfortunate political activity in eastern Europe has curtailed most all formal meeting activity for the committee membership. Hopefully, a resolution to that conflict will come soon. We are planning to meet at the next International Conference on Permafrost that will be held in Whitehorse, Yukon Territory, Canada in June 2024. If C21 members can attend, we hope to have an informal meeting at the 6th European Conference on Permafrost in Puigerdà, Spain in June 2023. (Note – This was accomplished!)

The individual members of the commission have been very busy. The Chair's collaboration with the US Army Corps of Engineers Cold Regions Research and Engineering Laboratory continued. In August 2022, the Chair participated in the North Yukon Permafrost Conference that was sponsored by three Canadian First Nations and the Canadian Permafrost Association. This was a new type of conference for the general engineering and scientific community because it was presented from the view of the people who are affected by permafrost hazards. The Chair was co-organizer of a workshop in Anchorage, Alaska in November 2022 where speakers presented on science and engineering topics related to the relationship between climate warming and permafrost in Alaska. In December, the Chair addressed a special session at the American Geophysical Union's Fall Meeting presenting work on extending the life of foundations on permafrost relying on thermosyphons in Alaska.

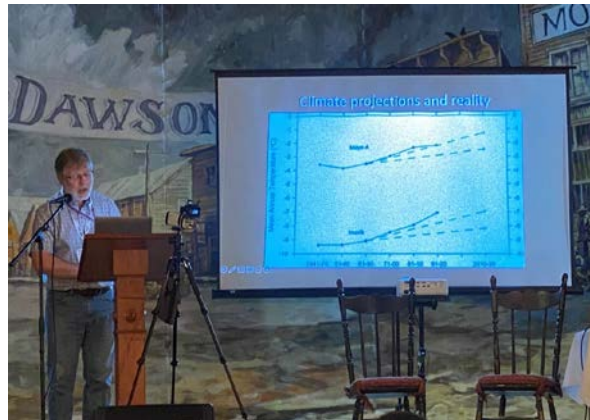
Our colleagues from Russia were busy studying the influence of changing climatic and geocryological conditions in the permafrost regions. Much of the work was directed at finding the information that will allow safe expansion of the oil and gas infrastructure in the Russian far north including updating permafrost maps. Most of the world's permafrost lies in Russia and research regarding how thawing contributes to global warming is very important. However, sanctions disrupted field work and cut off outside funding for collaborative work. It seems that politics are more important than science and engineering.

The Arctic is warming three to four times as fast as the more temperate zones on the planet. There are places where permafrost is recently absent and not-so-permanent now. While living in a slightly warmer climate might seem more palatable to some humans in the Arctic, the hazards that the warming climate is causing will outweigh the minor convenience of wearing a lighter jacket in winter. The built infrastructure required for habitation, transportation, and industry on permafrost is being severely impacted by the rapidly warming climate. It is an exciting and challenging time to be working in the permafrost realm.

The story of Big Blue, a horse in a pack train, told by Jimmy Johnny from Mayo, YT is a perfect example of how thaw due to climate change affects the people living in permafrost environments. Big Blue fell into a thermokarst sinkhole that the other horses missed. The horse was up over its head in the hole, and virtually impossible to get out no matter how hard people tried. The story of Big Blue ends with the horse surviving the ordeal due to some innovation on Jimmy's part and some fear on

the horse's part. But, laced into the story is the warning that thermokarst and the resulting sinkholes are becoming more prevalent and dangerous.

(link to story: <https://www.theglobeandmail.com/opinion/article-the-catastrophic-threat-of-thawing-permafrost-hangs-over-us-all/>)



Dr. Chris Burn, President of the International Permafrost Association, sets the tone at the North Yukon Permafrost Conference in Dawson City, YT.

****Commission 24****

Under the leadership of the IAEG China Committee, the IAEG C24 Committee has been actively conducting scientific research, academic exchanges, and postgraduate training surrounding the issues of neotectonics, geohazards, and disaster prevention and mitigation.

Research on Neotectonics and Geohazard mechanism

(1) A study was conducted on the seismogenic fault and co-seismic hazards of the Luding earthquake in Sichuan China on September 5, 2022, which helped identify the distribution patterns and key influencing factors of earthquake disasters.

On September 5, 2022, an Ms6.8 earthquake occurred on the Moxi Fault in the southern section of the Xianshuihe Fault Zone. The geo-hazards interpretation was carried out through multi-temporal remote sensing and drone imaging before and after the earthquake, along with field investigations. The research found that: The earthquake induced 4,794 occurrences of collapses and landslides with a total area of 46.79 km². The types of geo-hazards induced by the earthquake were mainly shallow, medium, and small-scale collapses and landslides. These landslides, with small thickness and group development, were also very prevalent in the granitic bodies with structural fragmentation and strong to moderate weathering. Landslides were concentrated within a 6 km range on both sides of the Xianshuihe Fault Zone and Daduhe Fault Zone, influenced by fault activity, road excavation, and river erosion. The area and quantity of co-seismic landslides were negatively correlated with their distance from faults, highways, and water systems. In terms of spatial location, the earthquake-induced landslides were mainly located in the southeast of the epicenter, with a relatively concentrated distribution of landslides within the IX-degree earthquake area in Moxi Town, Wandong River Basin, Detuo Town to Wanggangping Village. According to a quick evaluation analysis of earthquake-induced landslides based on the Newmark model, it was found that the results based on the Arias Intensity were more accurate than those based on the PGA (Peak Ground Acceleration) for prediction and evaluation.

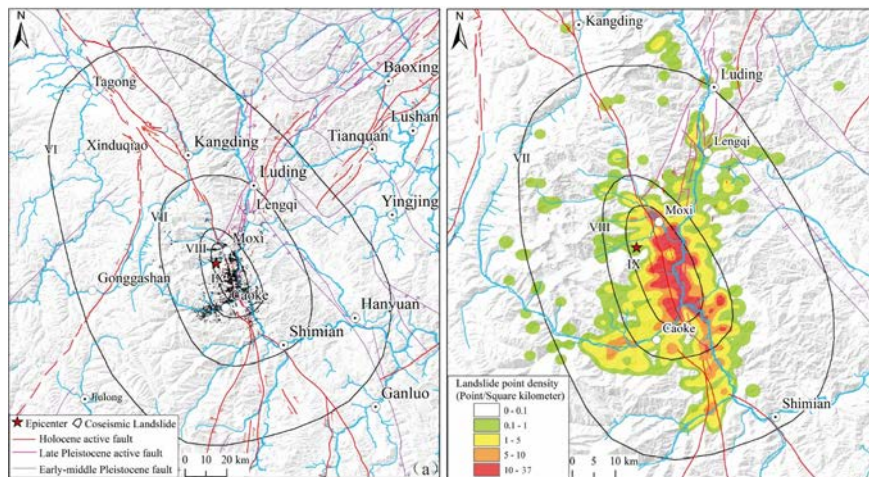


Fig. 1 Distribution and density development of coseismic landslides triggered by the Luding Ms6.8 earthquake. (a) Distribution of coseismic landslides triggered by the Luding Ms6.8 earthquake; (b) Development density map of coseismic landslides triggered by the Luding Ms6.8 earthquake.

(2) Some advance on the geological characteristics of the tectonic mélangé zone in the eastern part of the Tibetan Plateau was made; and a large ancient landslide in Duolasi was discussed.

Through field surveys, geophysical exploration, unmanned aerial vehicle surveying, geomechanical and chronology testing, we clarified the spatial development features and disaster effects of the typical tectonic mélangé zones, such as the Jinsha River and Nujiang in the eastern part of the Tibetan Plateau. We confirmed that the large ancient landslide in the Nujiang tectonic mélangé zone at Duolasi exhibits geological structures conducive to sliding, like dolomite gravel limestone and strongly serpentinized rocks. We have revealed that the primary slide was formed around 19.4 ± 2.8 ka ago and secondary slides around 4.24 ± 0.35 ka ago. We have also analyzed the triggering mechanisms of high-position landslides in the tectonic mélangé zone controlled by geological structures and unique lithology. Further, we analyzed the formation mechanism of the Baige landslide in 2018. We believe that the complex geological conditions and faulting in the tectonic mélangé zone control the slope structure of the Baige landslide, and active hydrothermal activities have provided favorable conditions for the formation of the Baige landslide's weathered soft rock, which typically promotes landsliding through strength reduction, deterioration of rock structure, and delayed destabilization.

The research results were published in the journal 'Earth Science' (2023).

(3) The characteristics and mechanisms of the reactivation of typical large-scale deep-seated ancient landslides in the eastern part of the Tibetan Plateau were revealed, which further enriched the research on the reactivation mechanisms of large-scale ancient landslides on the Tibetan Plateau.

Based on SBAS-InSAR, GDS triaxial, ring shear experiments, and centrifuge physical simulation tests, the reactivation mechanisms of the Jiangdingya ancient landslide in 2018 and the Chashushan landslide in 2006 have been further clarified. The studies suggest that: The internal causes for the reactivation of landslides are provided by the fragmented rock-soil mass and slope structure formed under fault activity and seismic influence. Intense rainfall adds to the self-weight of the slope and weakens the mechanical strength of the rock-soil mass, with shear-zone soils having extremely low residual strength under saturated conditions. Combining centrifuge simulation experiments with field investigation analysis, intense rainfall is identified as the direct cause of the Jiangdingya ancient landslide's reactivation. The rainfall infiltration reduces the mechanical strength of the shear-zone soil, and under the coupling effect of erosion from the river at the leading edge, a complex trigger mechanism involving rearward push and leading-edge pull is formed. In the initial formation

process of the Chashushan old landslide, the cracks are controlled by fault creep. These cracks, controlled by fault creep, provide channels or media for the rapid infiltration of surface water, which is the triggering factor of landslide reactivation.

The related findings have been published in journals including "Landslides" (2023), "Bulletin of Engineering Geology and the Environment" (2023).

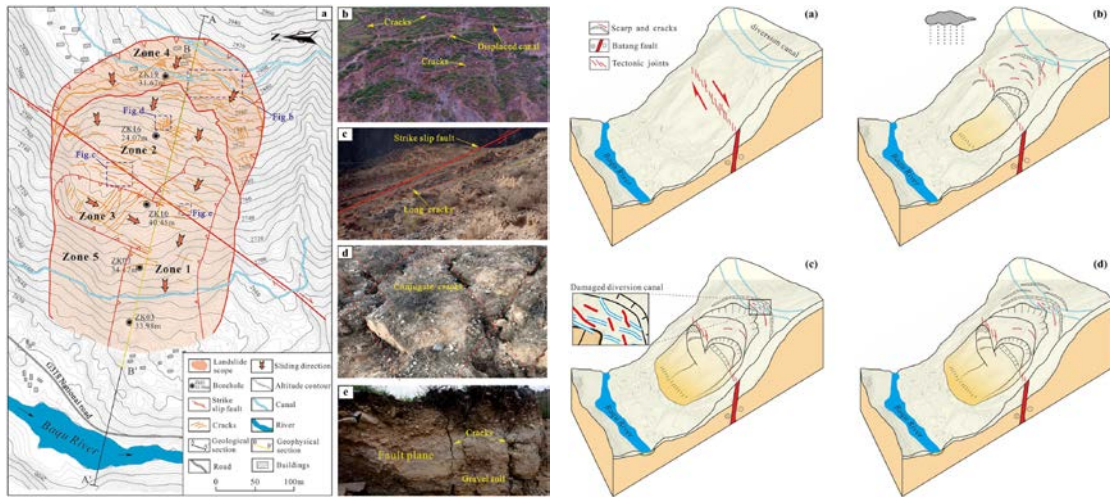


Fig. 2 Engineering geological plan of the Chashushan landslide Fig.3 Mechanism of formation and reactivation of the Chashushan landslide

(4) The geo-hazard formation mechanism of large mudstone landslides in the northwest region under hydraulic coupling were revealed, and it is proposed that the Wangqi landslide in Tianshui City has undergone three phases of hydraulic-induced sliding.

Large to giant-scale mud-rock landslides are widely distributed and pose serious hazards in the northwestern region of China, becoming a significant factor in restricting engineering construction and urban planning. From August 2020 to May 2022, the Wangqi landslide in Tianshui City, Gansu Province, experienced multiple reactivations due to the leakage of large storage wells. The study shows that:

- The Wangqi landslide underwent three deformation stages from August 2020 to May 2022, and is a typical hydraulic-induced gradual failure translational landslide.
- Two storage wells control the main sliding boundary of this landslide reactivation, with the failure mode being creeping-sliding and tensile cracking.
- This type of landslide features a disaster formation pattern of "deep creep - surface tension cracking - seepage softening - progressive shear-zone penetration - translational movement".

The related findings have been published in journals including "Landslides" (2023).

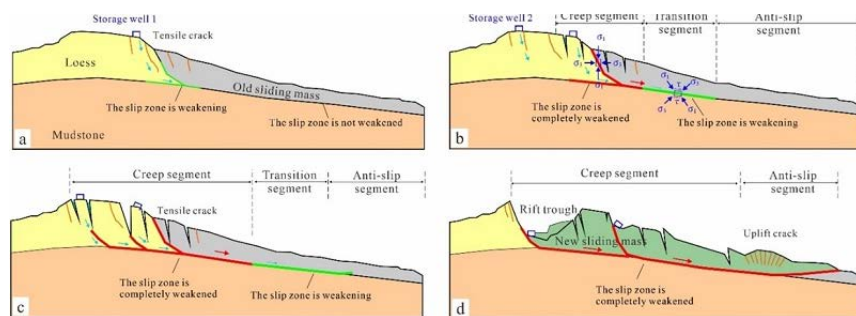


Fig. 4 Evolutionary mechanism diagram of the Tianshui City Wangqi landslide

(5) The members of C24 make support for the construction of major projects of China, and research on disaster prevention and reduction technology.

Focusing on the needs for geological risk prevention and control of national major project planning and construction, and closely around the key geological issues faced by major projects such as the Sichuan-Tibet Railway, the hydropower development of the lower reaches of the Yarlung Zangbo River, and the western line of the South-to-North Water Diversion Project. We have identified major geological safety risks such as tectonic mélangé, karst and high-pressure mud bursts, major geological disasters, active faults and engineering faults, high ground stress and surrounding rock disasters of deep tunnels, and high-temperature hazards, and proposed major project geological safety risk assessment opinions and prevention and control suggestions.

Academic Activities

C24 has carried out or participate in a variety of academic exchange activities in the past year, such as:

(1) Director of C24, Prof. Yueping Yin, participated in the lecture by Chen Zongji (2023), and delivered an invited report titled "Research on High-altitude Long-distance Geological Disasters and Their Prevention and Control".

(2) The Secretary-General of C24, Prof. Yongshuang Zhang, led a team to participate in the National Engineering Geology Academic Annual Conference in 2023 held in Nanjing City, Jiangsu Province. Professor Yueping Yin presented a report titled "Research on High-altitude Long-distance Geological Disaster Chains in the Tibetan Plateau", and Professor Changbao Guo presented a report on "Research on the Formation Mechanism and Potential Risks of Typical High-altitude Long-distance Landslides in the Tibetan Plateau". These activities effectively advanced and promoted academic exchanges.

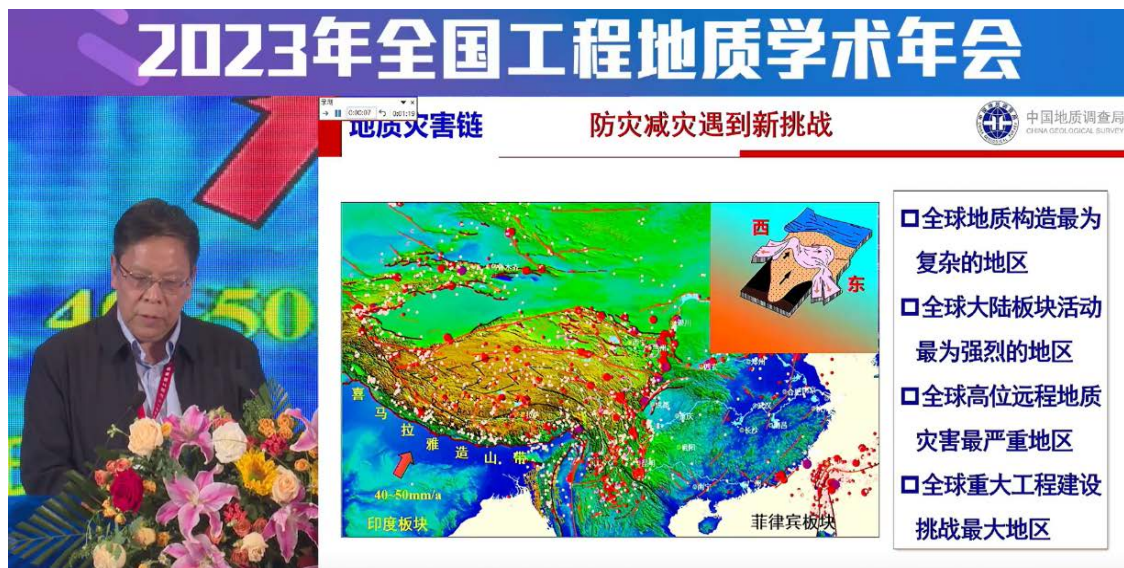


Fig. 5 shows Professor Yueping Yin presenting the invited report.

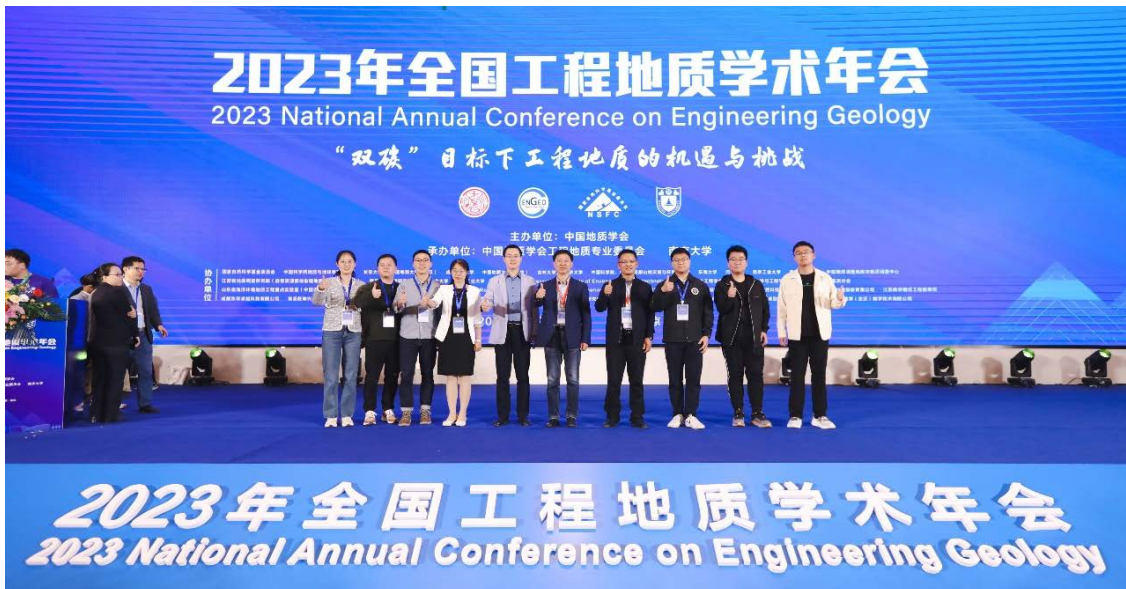


Fig. 6 shows Professor Yongshuang Zhang leading the team to participate in the 2023 National Engineering Geology Annual Conference.

(3) On December 20, 2022, the IAEG C24, held by the Institute of Geomechanics of the Chinese Academy of Geological Sciences, the Research Center for Neotectonics and Crustal Stability of the China Geological Survey, organized an online academic conference themed "Major Geological Safety Risks and Prevention and Control in Highly Active Tectonic Areas". Thirteen experts from universities and research institutions focused on the major engineering geological risks in China and cutting-edge technical methods, delivering brilliant academic reports and engaging in lively exchanges with the participants (Fig. 7). The conference attracted high attention and active response from experts and scholars in the fields of active tectonics, rock mechanics, geological disasters, etc., and more than 7,500 experts and scholars from many research institutions and universities across the country participated in this online conference through Tencent Meetings and "China Geological Survey" TikTok live platform.



Fig. 7 shows the 2022 academic annual conference of the Research Center for Neotectonics and Crustal Stability, China Geological Survey

Undertaking and Application of Projects

Members of the IAEG-C24 special committee are currently undertaking two key fund projects from the National Natural Science Foundation of China, one key R&D special project and three topics from the Ministry of Science and Technology, including one key fund project and one general fund project approved in 2022, and two youth fund projects.

Representative Publications and Achievements

The innovative scientific and technological achievements of the members of the IAEG-C24 special committee have been published in well-known journals such as *Engineering Geology*, *Landslides*, *Journal of Mountain Science*, *Bulletin of Engineering Geology and the Environment*, and representative articles within the year are listed below:

- [1]Yin, Y. P., Li, B., Gao, Y. et al., 2023. Geostructures, dynamics and risk mitigation of high-altitude and long-runout rockslides. *Journal of Rock Mechanics and Geotechnical Engineering*, 15: 66-101. Doi: <https://doi.org/10.1016/j.jrmge.2022.11.001>
- [2]Zhang, Y. S., Ren, S. S., Bi, J. B. et al., Multi-period formation and possible high-position hazards of Chada gully deposits on the eastern margin of Tibetan Plateau. *Engineering Geology*, 2022, 305: 106712. Doi: <https://doi.org/10.1016/j.enggeo.2022.106712>
- [3]Sun, P., Wang, H. J., Wang, G. et al., Field model experiments and numerical analysis of rainfall-induced shallow loess landslides. *Engineering Geology*, 2021, 290: 106411. Doi: <https://doi.org/10.1016/j.enggeo.2021.106411>
- [4]Li, L. P., Lan, H. X., Strom, A., Landslide longitudinal shape: a new concept for complementing landslide aspect ratio. *Landslides*, 2022, 19: 1143-1163. Doi: <https://doi.org/10.1007/s10346-021-01828-w>
- [5]Lan, H., Tian, N., Li, L., Wu, Y., Macciotta, R., & Clague, J. J. (2022). Kinematic-based landslide risk management for the Sichuan-Tibet Grid Interconnection Project (STGIP) in China. *Engineering Geology*, 308, 106823.
- [6]Wang, T., Liu, J. M., Shi, J. S. et al., Probabilistic seismic landslide hazard assessment: a case study in Tianshui, Northwest China. *Journal of Mountain Science*, 2020, 17: 173-190. Doi: <https://doi.org/10.1007/s11629-019-5618-1>
- [7]Guo, C. B., Zhang Y. S., Yuan H. et al., Study of an ancient landslide reactivation mechanism based on centrifuge model testing: An example of the Jiangdingya ancient landslide reactivation in 2018, Gansu Province, China. *Landslides*, 2023, 20: 127–141.
- [8]Haojie Wang, Ping Sun, Jian Ren, et al. 2023. Reactivation mechanism and run-out processes of the Wangqi landslide induced by water leakage on April 30, 2022, in Tianshui City, Gansu Province, China. *Landslides* 20, 999–1011.
- [9]Yan Yiqiu, Guo Changbao, Li Caihong, Yuan Hao, Qiu Zhendong. The Creep-Sliding Deformation Mechanism of the Jiaju Ancient Landslide in the Upstream of Dadu River, Tibetan Plateau, China. *Remote Sensing*, 2023, 15(3): 592.
- [10]Wu Ruian, Guo Changbao, Ni Jiawei, et al. Ancient landslide river damming event in the Batang fault zone, Tibetan Plateau. *Bulletin of Engineering Geology and the Environment*, 2023, 82: 25. <https://doi.org/10.1007/s10064-022-03048-5>.

Talent Cultivation

Within this year, the main teachers of the special committee have cultivated 30 master's graduates and 15 Ph.D. students, among which doctoral student Sanshao Ren and master's student Yiqiu Yan have respectively won the national scholarship of China.

Next Work Plan

(1) Further strengthen the research on the controlling role of active structures on large landslides, propose a controlling theory for large landslides in active faults, and achieve a breakthrough in the

rapid prediction and assessment of earthquake-induced landslides;

(2) Strengthen the application for national key R&D projects, natural science foundation projects, and other projects in the fields of engineering geology and geological disasters, and advance the research of the ongoing projects;

(3) Actively participate in academic exchange activities, promote the thematic report meeting, and organize thematic academic activities of related societies such as engineering geology and rock mechanics;

(4) In the coming XIV international congress of IAEG, the director of C24, Prof. Yueping Yin, and Masahiro Chigira served as the chairmen of Theme 5: Active Tectonics, Geomorphology, and Geo-hazards, which is planned to be held in Chengdu, Sichuan, China, in September 2023, and a special session of C24 will be arranged under it.

(5) Strengthen team talent cultivation, encourage team members to apply for talent projects, organize thematic training, increase the sharing and use of professional experimental equipment and software, and enhance the ability and level of scientific and technological innovation.

****Commission 25****

OBJECTIVE: To collect information relating to the development and use of engineering geological models, encourage research in this area and disseminate that knowledge within the engineering geology community.

PROGRESS

The members of C25 completed their task on schedule in December 2022 and published:

Guidelines for the development and application of engineering geological models on projects.

The bibliographic reference is: Baynes, F. J. and Parry, S. 2022. Guidelines for the development and application of engineering geological models on projects. International Association for Engineering Geology and the Environment (IAEG) Commission 25 Occasional Publication No. 1, 130 pp

The *Guidelines* are freely downloadable from: <https://www.iaeg.info/C25EGMGuidelines/>

The Guidelines are being translated into a number of key international languages including Chinese, Portuguese and Spanish and when these translations are complete, they will also be placed on the website for free download. A successful YEG webinar to discuss the Guidelines was held on 13 July 2023. Further workshops on the Guidelines and a general revision of the document in 2024 are being planned.

Fred Baynes and Steve Parry would like to acknowledge the huge efforts of all those who contributed to this ongoing work.

****Commission 28****

1. Activity developed in 2022 and first half of 2023

The reliability of the EGM is the degree to which the predicted engineering geological conditions can be relied upon to be an accurate and reasonable approximation of the actual conditions or performance and therefore can optimise engineering decision-making.

Uncertainty within the EGM will reduce the reliability of the project engineering and therefore the uncertainty must be assessed, and strategies developed to reduce it.

The EGM thus needs to be built around a valid understanding of the site, its setting, and its geological history. In consequence, the two fundamental components of the EGM will be characterized by very

different sources of uncertainty:

- The Conceptual Model – is a model based mainly on geological concepts and interpretations that also incorporate the engineering purpose of the model. Associated uncertainty is due to a lack of knowledge and bias of the observer. This is sometimes called epistemic uncertainty, but we will use the term conceptual uncertainty.
- The Observational Model – is a model based mainly on engineering and geological observations and measurements. Associated uncertainty is due to variability and randomness of the intrinsic properties of the system. This is sometimes called aleatory uncertainty, but we will use the term observational uncertainty.

Uncertainty in the Conceptual Model

Conceptual Model uncertainty primarily depends on the appropriateness of the concepts underlying the EGM., i.e., understanding of site conditions, which in turn is heavily dependent on the knowledge and experience of those involved.

However, the following factors are also important:

- The spatial relevance of the data to the project – location and scale.
- The quality of the available data sources
- The representativeness and volumetric adequacy (quantity) of available data.
- The geological and geotechnical complexity, and geological history

The decisions taken during the conceptualization process can introduce bias and uncertainty into the model.

Bond et al. (2008) noted several types of biases, the most relevant being:

- Availability Bias: an interpretation that is most readily to mind and are familiar with.
- Anchoring Bias: accepting 'expert' or dominant published opinion.
- Confirmation Bias: seeking only opinions or facts that support one's own hypothesis, or similarly interpreting the data to fit the hypothesis.
- Optimistic Bias: interpreting in a manner that produces a more positive outcome for a study, such as interpreting greater continuity of mineralization controlling structures, or preferring to ignore conflicting data that may reduce positive project outcomes (after Krueger and Funder, D., 2004).

Uncertainty in the Observational model

It will be primarily data-related, encompassing:

- Inherent (natural) variability: natural spatial variability of the geological environment.
- Limited data uncertainty (epistemic uncertainty): the impossibility of measuring geological and geotechnical properties at every point and in every different geological domain within the EGM environment.
- Instrument uncertainty: uncertainties related to measurement accuracy inclusive of field devices and laboratory testing devices.

Inherent variability and instrument uncertainty are systematic and cannot be removed without improving the quality of the instrument. Only the limited data uncertainty can be reduced by increasing the number and distribution of measurements.

Moreover, in some cases, the input/design parameters for parts of a geological model are derived from a transformation of measured parameters, dependent on the EGM design purposes.

Transformation uncertainty depends on the transformation model and variables and can be quantified by propagating the original uncertainty affecting the measured variables.

The OBJECTIVE of the 2023 C28 activity will be to outline well-known and research approaches to **QUANTIFY** the UNCERTAINTY related to both MODELS:

- CONCEPTUAL & OBSERVATIONAL

A reliable EGM can only be established when there is sufficient “compatibility” or “harmony” between the evolving conceptual framework and the acquired observational data.

Methods used for CONCEPTUAL MODEL can be:

- 1) Use of Expert Review Panels

Typically, expert review will include evaluation of the conceptual components of the EGM, but often cannot delve into the integral details of the model construction sufficiently to unearth fundamental development issues that impact ultimate reliability. To resolve this the optimal approach for this process is to begin detailed expert review before the award of the contract to build an EGM and then continue such review regularly until project completion.

- 2) Self-Checking of EGMs

- 3) The R-Index

Methods used for OBSERVATIONAL MODEL can be:

Quantitative assessments are restricted to evaluating the Observational Model components of uncertainty i.e., spatial variability, limited data uncertainty, systematic uncertainty and transformation uncertainties. Four families of tools can be employed:

- Random Field simulations and Random Finite Element Method (RFEM involves the use of random virtual soils combined with finite element analysis within a Monte Carlo simulation (Fenton and Griffiths, 2007)),
- Bayesian Methods
- Geostatistical methods (both stationary and non-stationary, such as Kriging methods),
- Stochastic simulations

The METHOD used:

- Selecting possible case studies with datasets of subsoil characterisation to which apply quantitative methods to Conceptual and Observational EGM
- Identifying and comparing different methods

ACTIONS TO TAKE

- 1) Choosing which type of EGM reliability estimation each member would like to contribute
- 2) Working in group on meaningful datasets to investigate the efficiency or feasibility of literature techniques to be used
- 3) To put into Guidelines the lessons learned from these case studies and numerical applications (after 1 or 2-year activity)

2. Activity to be developed from June 2023

2.1 Objective

Case histories on the reliability/uncertainty assessment of Engineering Geological Model in engineering projects.

2.2 Background

The EGM needs to be built around a valid understanding of the site, its setting and its geological history. In consequence, the two fundamental components of the EGM will be characterized by very different sources of uncertainty:

- The Conceptual Model – is a model based mainly on geological concepts and interpretations that also incorporate the engineering purpose of the model. Associated uncertainty is due to a lack of knowledge and bias of the observer. This is sometimes called epistemic uncertainty, but we will use the term conceptual uncertainty.
- The Observational Model – is a model-based mainly on engineering and geological observations and measurements. Associated uncertainty is due to variability and randomness of the intrinsic properties of the system. This is sometimes called aleatory uncertainty, but we will use the term observational uncertainty.

The way that the knowledge is accumulated within the EGM reflects the dynamic relationship between the conceptual component and the observational component.

2.3 Terms of Reference

A. Working in groups within the C28 on meaningful datasets coming from real cases, to investigate the efficiency or feasibility of literature techniques to be used.

B. Describe the results analyzed in point A to produce a series of case studies, briefly described, to be collected in a sort of catalog of state-of-the-art examples.

C. Put the lessons learned from these case studies and numerical applications into Guidelines as suggestions for practitioners.

2.4 Preliminary list of case studies

EGM component analyzed	Project name	Method	Market	Lead	State
Component 1: Conceptual Model	Venetia Mine Pit. Limpopo Belt, South Africa.	Example of an Open Pit Geological Model Reliability Assessment	Mining	Wayne Barnett, Trevor Carter, Phil de Graaf	Completed
Component 2: Observational Model	Fucino Basin (Italy)	Indicator Kriging with external Drift to assess the liquefaction probability of soil	Territorial planning	Giovanna Vessia, Diego Di Curzio	Completed
Component 2: Observational Model	Subsoil mechanical characterization in Bologna District (Italy)	Multi-Gaussian Co-Kriging Simulation	Infrastructure designing	Diego Di Curzio, Giovanna Vessia	Completed
Component 2: Observational Model	Ferrara District (Italy)	Penetrometer data	Territorial planning	Scott McManus, Ana Horta, Giovanna Vessia, Diego Di Curzio	Ongoing

Component 1: Conceptual Model	To be defined	To be defined	To be defined	Christopher Jack	Preliminary
Component 1: Conceptual Model	Snowy 2.0 Pumped Storage Project, NSW, Australia	Example of management of uncertainties and geohazards	Hydropower	Giancarlo Cardone	Preliminary

2.5 Outcomes

We are going to publish the case studies indicated above, either open access papers on peer reviewed journals or technical reports on trusted repositories (e.g., ZENODO).

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Progress in 2022-2023

- (1) Professor Qi Shengwen and Li Lihui are both engaged in organizing the IAEG-2023, Profession Qi chairs one theme and two sessions, and Professor Li is one convenor of Session 2 under Theme 2.
- (2) The chair of C29 Prof. Qi Shengwen and the Chair of C38 Prof. Haralampos Saroglou discussed to co-organize a workshop in IAEG-2023.
- (3) The general secretary Prof. Li Lihui invited Prof. Ranjith to be a keynote speaker for the IAEG-2023 on a theme of "Geological sequestration of carbon dioxide".
- (4) The commission Chair, Prof. Qi invited Prof. Ranjith from Monash University to participate in some studies for further co-organization.
- (5) In May 22, Prof. Qi organized the conference for the establishment of the Engineering Geomechanics Branch of the Chinese Society for Rock Mechanics and Engineering. Qi is the chairman. Prof. Wu Faquan and Academician of CAS Prof. He Manchao and Di Qingyun gave the invited presentations during the conference.



Prof. Shengwen Qi on the Report

Commission 34

Marine ecosystem has a more fragile and complicated environmental habit than terrestrial environment. It is changing constantly because of lots of marine dynamic conditions, such as waves, currents, tides, etc. It is also a typical area where geologic hazards occur frequently, for example, coastal erosion, submarine landslide, which could pose a threat to safety of marine engineering facilities. What's more, differences among sediment source, sedimentary environment and environmental load contribute to the limitation that researches on marine engineering geology cannot simply follow the general regulations and principles of land engineering geology. The commission was founded in Banff, Canada in June, 2012 in order to promote and enhance international cooperation on the marine engineering geology.

ACTIVITIES

a) Advancing IAEG-IRP. Based on the international research program approved by IAEG, an in-situ surveying equipment of engineering geology (named Seegeo) was successfully developed. This project which led by Professor Jia Yonggang, the chairman of IAEG-C34, was especially applicable to complex deep sea. In 2022, Seegeo were awarded the first prize of Technical Invention Award of Science Research Famous Achievement Award in Higher Institution and ICGdR Technology Invention Award. Professor Liu Xiaolei, the Secretary-General of IAEG-C34, was awarded the ICGdR Outstanding Young Scientist Award.

b) Highlighting the advances and challenges on marine geohazards. The development of marine geohazards has been reviewed from three parts which is identifying past marine geohazards, monitoring active marine geohazard, and processing and predicting marine geohazard. Based on bibliometric analysis and our understanding from an engineering geologist's perspective, tremendous progress, facing challenges and the future development of marine geohazards has been summarized. The relevant achievements have been published in Engineering Geology.

c) Organizing to publish two special issues. Over the past year, one special issue about Advances in Marine Engineering: Geological Environment and Hazards was organized in Journal of Marine Science and Engineering (JMSE). This issue invites contributions comprising in situ observations, indoor tests, numerical simulations, and theoretical analyses on marine geological environments and hazards. Some of them used numerical simulations, some conducted laboratory experiments, and others acquired and analyzed field or laboratory tests to establish a theoretical modeling framework for predicting marine sediment properties and the potential hazards. Another special issue about Methods and Advanced in Marine Geology and Hydrodynamics Environment was organized in Frontiers in Marine Science and it is currently accepting submissions.

d) Participation in Deep-time Digital Earth Program (DDE). We participated in the research project in the field of engineering geology and environment, focusing on marine engineering geological investigations. This included the construction of a knowledge graph for marine engineering geology, collection of materials related to marine engineering geological disasters, analysis of marine engineering geological disaster cases, and the development of a marine engineering geology data platform. Currently, we are further refining and perfecting the disciplinary framework, expanding the scope of the marine engineering geology discipline, providing definitions and reference sources for the additional professional content covered by the discipline based on the definition of marine engineering geology.

e) Organizing C34 members to attend the IAEG XIV Congress and sponsor the 3rd International Symposium on Marine Engineering Geology (ISMEG 2023). We organize our members to participate in conference submissions and oral presentations, supporting their attendance at the conference held in Chengdu from September 21st to 27th, 2023.

PLAN FOR 2022-2023

(a) Organize C34 members to attend the IAEG XIV Congress, hosted in Chengdu, China from 21st to 27th, September, 2023 and host the C34 committee meeting during the conference.

(b) Sponsor the 3rd International Symposium on Marine Engineering Geology (ISMEG 2023) at Chengdu, China in 2023.

(c) Improve the professional technology of marine engineering geology by establishing international technical standards for cone penetration test in beach/shallow sea and pore pressure observation in deep sea.

(e) Strength international exchanges and substantive cooperation in scientific research and project application.

****Commission 36****

ACTIVITIES

1. C36 workteam and members made several inspection tours of demonstration site of the prevention and treatment technology for expansive soil engineering slopes in Anhui and Guangxi provinces, China.

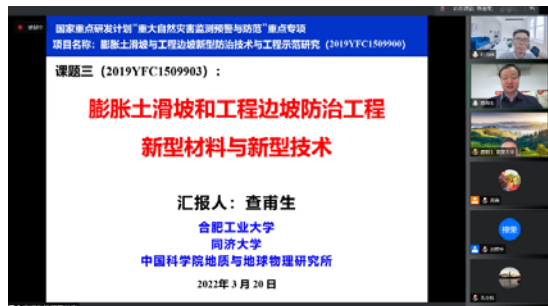


Field investigation in Anhui Province



Field investigation in Guangxi Province

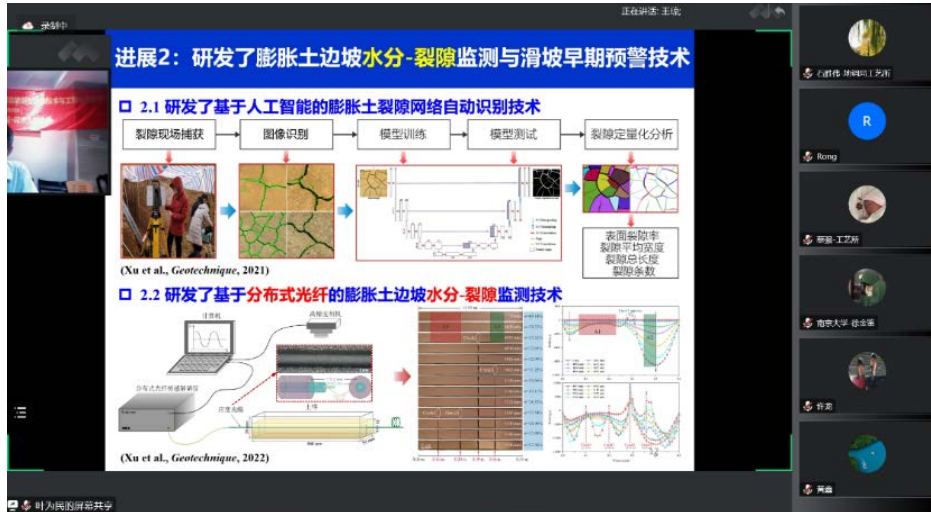
2. C36 organized several webinars and symposiums on the treatment and prevention technologies for expansive soil slopes, sharing the research progresses of the in-situ automatic crack capture and moisture monitoring by optical fiber, laboratory experiments, modelling as well as treatment methods of cracks in unsaturated expansive clay.



Webinar on the new treatment methods and prevention technology for expansive soil slope in March, 2022 (left)
Webinar on the health diagnosis and rapid-repair technology for the engineering structures of expansive soil slope in April, 2022 (right)



Webinar on the failure characteristics and safety assessment of expansive soil slope in May, 2022 (left)
 Webinar on the development of intelligent monitoring and early-warning platform for expansive soil slope in July, 2022 (right)



Webinar on the crack and moisture identification and monitoring using optical fiber for expansive soil slope in Aug, 2022

3. The number of core members of C36 has further expanded. In 2022, Prof. Feng Zhang, Dr Yucheng Li, Dr Zhao Zhang and other professors or researchers have been accepted as the member of Commission 36 of the IAEG. By now, there are about 70 core members from various countries working for C36.

****Commission 37****

Over the past decades, researchers have constructed a substantial theory and methodology of landslide risk, while generating and using a variety of terminology that is difficult to unify. Landslide risk research requires harmonization of methodologies and terminology to facilitate communication within the landslide community, as well as with stakeholders and researchers from other disciplines. Currently, glossaries, and methodological recommendations exist for preparing landslide hazard and risk studies. Nevertheless, a review of the publications in international journals and conferences shows that the terminologies used still differ or generate ambiguity.

To address relevant issues on landslide terminology, the IAEG commission C-37 established a series of working groups (WGs), including the WG on landslide risk nomenclature led by Prof. Jordi Corominas, with the objective of preparing a standard multilingual glossary of landslide hazard and risk terms. Based on many years of collaboration work, professors Jordi Corominas (Spain), Fausto Guzzetti (Italy), Hengxing Lan (China), Renato Macciotta (Canada), Cristian Marunteranu (Romania), Scott McDougall (Canada) and Alexander Strom (Russia) of the C-37 working group published the paper "Revisiting landslide risk nomenclature: IAEG commission C-37 working group on landslide risk nomenclature" in the Bulletin of Engineering Geology and the Environment.

This paper presents comments on selected landslide hazard and risk terms of the multilingual glossary that is currently under preparation by the IAEG C-37 WG. This work has reviewed a few selected definitions for landslide risk-related terms in order to harmonize them with those used in related disciplines. In this paper, the English version of the glossary is included. The terms defined can be easily integrated into quantitative risk analysis.

Corominas, J., Guzzetti, F., Lan, H., Macciotta, R., Marunteranu, C., McDougall, S., & Strom, A., 2023. Revisiting landslide risk terms: IAEG commission C-37 working group on landslide risk nomenclature. *Bull Eng Geol Environ*, 82, 450. <https://doi.org/10.1007/s10064-023-03474-z>

Bulletin of Engineering Geology and the Environment (2023) 82:450
<https://doi.org/10.1007/s10064-023-03474-z>

REVIEW PAPER

Revisiting landslide risk terms: IAEG commission C-37 working group on landslide risk nomenclature

Jordi Corominas¹ · Fausto Guzzetti² · Hengxing Lan³ · Renato Macciotta⁴ · Cristian Marunteranu⁵ · Scott McDougall⁶ · Alexander Strom⁷

Received: 9 June 2023 / Accepted: 30 October 2023
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Abstract
 Significant effort has been devoted during the last few decades to the development of methodologies for landslide hazard and risk assessment. All of this work requires harmonization of the methodologies and terminology to facilitate communication within the landslide community, as well as with stakeholders and researchers from other disciplines. Currently, glossaries, and methodological recommendations exist for preparing landslide hazard and risk studies. Nevertheless, there is still debate on the usage of some terms and their implementation in practice.
 In 2016, the IAEG commission C-37 established a working group with the objective of preparing a standard multilingual glossary of landslide hazard and risk terms. The glossary aims for the international harmonization of the terms and definitions with those used in associated disciplines (e.g., seismology, hydrology) while considering landslides specifically. The glossary is based on previously published glossaries, including those prepared by ISSMGE TC32, FedIGS, FTC1, and UNISDR. This article presents comments on the meaning of some of the terms that have required further discussion. The English version of the glossary is also included.

Keywords Landslide · Hazard · Risk · Multilingual glossary

Article information

The fact that some terms contain ambiguity is not in itself relevant. However, transparency is essential to understand the meaning of each term. An example of this is the concept of susceptibility. Some authors consider it to be the propensity to produce a slope failure, while others consider it to be affected by the landslide, which includes runoff. This distinction must be declared. In any case, hazard analysis must incorporate both aspects, as well as the intensity. In our opinion, some terminological dilemmas can be overcome by performing quantitative risk analysis, in which all of the components are disaggregated. Hence standardized, commonly accepted and clearly formalized procedures for landslide hazard and risk assessment are necessary.

Appendix. English version of the multilingual glossary

Term	Definition
Acceptable risk	A risk that everyone potentially impacted is prepared to accept. Action to further reduce such risk is usually not required
ALARP (as low as reasonably practicable) principle	The principle that risks that are higher than the limit of acceptability are tolerable only if risk reduction is impracticable or if its cost is grossly disproportionate (depending on the level of risk) to the improvement gained
Conditional probability	The probability of an outcome, given the occurrence of some event
Consequence	The adverse impact resulting from the realization of the hazard
Countermeasures	Measures taken to oppose and reduce risk
Danger (threat)	A natural phenomenon that could lead to damage, described in terms of its geometry, mechanical, and other characteristics
Elements at risk	Population, buildings and engineering works, infrastructure, environmental features, cultural values, and economic activities in the area affected by an event
Environmental risk	(a) The potential for an adverse effect on the natural system (environment) and (b) the probability of suffering damage because of exposure to some environmental circumstance
Event	The realization of a hazard
Exposure	People, property, systems, or other elements present in hazard zones that are thereby exposed to potential losses

Term	Definition
Extreme event	An event that has a very low annual exceedance probability
Failure	A fracturing or giving way under stress
Fault tree analysis	A systems engineering method for representing the logical combinations of various system states and possible causes, which can contribute to a specified problematic (fault) event (called the top event)
Forecast	A definite statement or statistical estimate of the likely occurrence of a future event or conditions for a specific area
f, N pairs	Refers to “f” the probability of life loss due to failure for each scenario studied, and “N,” the number of lives expected to be lost in the event of such a failure scenario
F-N curves	Curves relating the probability per year of causing N or more fatalities (F) to N
Fragility curve	Defines the probability of exceeding a given damage state as a function of an applied load level
Hazard	A condition with the potential of causing an undesirable consequence. Mathematically, the probability of a particular threat occurring in an area within a defined time period
Hazard level	A measure of the intensity and probability of occurrence of a hazardous event
Hazard zonation	Mapping of an area in which particular zones correspond to different hazard levels.
Individual risk to life	The increment of risk imposed on a particular individual by the existence of a hazard
Involuntary risk	A risk imposed on people by a controlling body and not assumed by free choice of the people at risk
Landslide inventory	A record of recognized landslides in a particular area
Landslide hazard analysis	The use of available information to estimate the zones where landslides of a particular type, volume, velocity, and runoff may occur within a given period of time
Landslide hazard map	A map on which different areas are characterized by different landslide hazard levels

English version of the multilingual glossary

****Commission 38****

Since the European Regional Conference of IAEG in 2021 and the successful workshop of Commission C38, the activities of the commission have not progressed significantly. The page for Commission C38 with information from the workshop is:

<https://iaeg.info/commission-38-rockmass-characterization-with-emphasis-in-rock-slope-hazards/>

Intention of C38 is to progress the work on preparation of the 2 state-of the art papers further.

The topics are as follows:

- Rock slope hazards: a SOTA review in a geological and rock engineering context
- Rock mass classification methods and digital characterization of discontinuities for slopes using new technologies

****Commission 39****

C39 remains engaged in essential endeavors. Notably, they are diligently working on producing an NOA Guidebook as per ASTM's request. Furthermore, active collaboration with California OSHA is ongoing to revise worker protection regulations for NOA. Additionally, a half-day symposium is scheduled for September at the AEG Annual Meeting in Portland, Oregon, USA, showcasing the commission's dedication to its objectives despite recent challenges.

07. REGIONAL CONFERENCES

The 14th Asian Regional Conference of IAEG in Kota Kinabalu, Malaysia on February 26-28th, 2024



14TH ASIAN REGIONAL CONFERENCE OF IAEG

KUALA LUMPUR, MALAYSIA

27 FEB - 29 FEB 2024

ENGINEERING GEOLOGY AND GEOTECHNICS FOR DISASTER RESILIENCE

ARC14 is organized by Society for Engineering Geology and Rock Mechanics Malaysia (SEGRM). The organizer offers an ideal opportunity and platform for professionals from the international engineering geology and geotechnical engineering community to exchange the latest experiences and ideas, particularly on the conference theme "Geoscience and Engineering for Disaster Resilience". In addition to the technical programs, we will organize short courses, workshops, technical visits, exhibitions, as well as social programs. We will also offer attractive programs for young researchers and students, such as Young Engineering Geologist Session.

Conference Information

Website: <https://arc14.asia/>; Email: admin-arc14@segrm.org

Phone: +6018-2524267 (Whatsapp only)

Sub-theme

- Site Characterization, Field & Laboratory Testing and Problematic Grounds
- Geological Hazards (Landslides, Earthquakes, etc.)
- Engineering Geology and Geotechnics in Wet Tropical Terrains
- Tunnelling for Infrastructures and Underground Facilities
- Marine Engineering Geology and Offshore Geohazards
- New Technology in Engineering Geology and Geotechnics including Renewable Energy
- Special Session on 'Landslide Hazard and Risk Assessment' and 'Geoscience and Engineering Roles in Community-Based Disaster Risk Management'

Important Date

30th July 2023: Confirmation of Acceptance of Extended Abstracts

31st October 2023: Last Day for Submission of Corrected Extended Abstract

Call For Abstract

ARC14 is calling for abstract. Please the website to submit your abstract through the link of <https://www.arc14.asia/> and https://drive.google.com/file/d/1zu9B95MoDZq7wSbvN6-Zk-pJhDmtGHn9/view?usp=share_link to download the abstract template.

Field Trip

(Sandakan Area): 2D1N/3D2N Bilit Rainforest Lodge; Sepilok Orang Utan / Kinabatangan River



(Lahad Datu Area) 3D2N Tabin Wildlife Reserve or 3D2N Borneo Rainforest Lodge



(Semporna Area): 3D2N / 4D3N Semporna Islands with Bohey Dulang Hike



Please click <https://www.dropbox.com/s/g9jilutf1chetwvg/ARC-14%20%28Second%20Circular%29.pdf?dl=0> for the 2nd circular of ARC14.

**The 4th European Regional Conference of IAEG in Dubrovnik, Croatia on
October 8-12th, 2024**



The 4th European Regional Conference of IAEG (EUROENGEO 2024), will be held in Dubrovnik, Croatia, by the IAEG National Group of Croatia. The conference will take place from October 8th to 12th, 2024 at Hotel Dubrovnik Palace.

The previous 3rd European Regional Conference (EUROENGEO 2020) held in Athens, Greece in October 2021 was very successful and justified the need for regular organization of such conferences at European level in order to increase networking of National Groups (NGs) and improve communication between them.

Based on the theme of "Engineering Geology and Geotechnics: Building for the Future" the conference will focus on the latest research and innovation in engineering geology and geotechnics, highlighting the challenges and opportunities for sustainable infrastructure development. The main aim is to bring together professionals from the fields of engineering geology and geotechnics to share knowledge, discuss challenges, and present innovative solutions to complex engineering problems that meets the needs of present and future generations. By doing so, the conference will contribute to the development of sustainable and resilient infrastructure that can withstand the challenges of the future, such as climate change, population growth, and urbanization.

Conference Information

Website: [https://www.euroengeo2024.com/;](https://www.euroengeo2024.com/)

Email: info@euroengeo2024.com

Venue: Hotel Dubrovnik Palace

La Serena, Chile, November 12-16th, 2024

The 2nd Latin-American Regional Conference of IAEG



Dear colleagues: On behalf of the Chilean Geotechnical Society (SOCHIGE), you are cordially invited to participate in the 17th Pan-American Conference on Soil Mechanics and Geotechnical Engineering (XVII PCSMGE) and 2nd Latin-American Regional Conference of the International Association of Engineering Geology and the Environment (IAEG) to be held in Chile in November 2024. We are delighted to organize this event, for the second time, after hosting it back in 1991. With an average width of 180 kilometers and a length of about 5000 kilometers, Chile is bordered by the Pacific Ocean to the west and the majestic Andes Mountains to the east. These characteristics result in a country with a wide variety of climates and vegetation, as well as both soil and rock conditions along its territory. As part of the Circum-Pacific Belt, Chile is one of the great seismically active regions in the world, which is of particular interest to geoscientists and geotechnical engineers worldwide. The Panamerican congress will serve as a unique platform for dissemination of knowledge and fruitful interactions among researchers and practitioners from different generations and nationalities. We are excited to keep growing as a community and your attendance is essential to the success of this conference. We look forward to receiving you in our country!

Conference Information

Website: <https://panamgeochile2024.cl/>; E-mail: info@panamgeochile2024.cl

Venue: Peñuelas Norte 56, Coquimbo, Región de Coquimbo, Chile

Topics

- Geotechnical Characterization
- Geotechnical Design
- Geotechnologies
- Geological & Environmental Engineering
- Hot Geotopics
- Geotechnical Engineering Challenge

Key Dates

July 2023: Deadline for abstract submission

August 2023: Notification of abstract acceptance

November 2023: Draft paper submission deadline

January 2024: Notification of paper acceptance

April 2024: Final Paper Due

November 12–16, 2024

Call For Abstracts

Abstract Submission Deadline July 2023

Call For Abstracts

The Chilean Geotechnical Society SOCHIGE will host the 17th Pan-American Conference on Soil Mechanics and Geotechnical Engineering PANAMGEOCHILE2024 in conjunction with the 2nd Latin-American regional Conference of IAEG which are being organized with the support of:

- The International Society of Soil Mechanics and Geotechnical Engineering ISSMGE
- The International Association for Engineering Geology and Environment IAEG
- The Chilean Association for Engineering Geology ACHIGEOL
- North and South America Vice Presidents of ISSMGE
- Geotechnical Societies of North and South America

PANAMGEOCHILE2024 will be held in the Chilean coastal city of La Serena which is located about 400 km North of Santiago.

Technical areas to be covered in the Conference are:

1. Geotechnical Characterization
2. Geotechnical Design
3. Geotechnologies
4. Geological and Environmental Engineering
5. Hot Geotopics
6. Geotechnical Engineering Challenges

More details on the specific subject of each technical area can be seen in the web page: <https://panamgeochile2024.cl>

During PANAMGEOCHILE2024 the Casagrande Lecture will be delivered by Prof. J. Carlos Santamarina, and at least 6 Keynote Lectures by distinguished geotechnical engineers and engineering geologists.

Workshops are being planned to take place November 12. Technical/Sponsors Exhibition will be available at the Conference Centre.



Abstract Guidelines and Information

The present invitation is to seek abstracts for papers for oral presentation and for poster presentation.

- All abstracts must be submitted electronically via our online system.
- All abstracts must be written in English and also in Spanish or Portuguese if the paper is going to be presented in one of the last two languages. Draft/final papers can be written either in English, Spanish or Portuguese.
- Maximum 300 words (excluding title and author/affiliation information).
- Submission of an abstract does not constitute acceptance for presentation or registration for the Conference.
- Authors must submit a paper for review following approval of the abstract.
- If a submitted abstract is accepted for the technical program in an oral or poster session, the presenter must register for the Conference.
- Platform and process will be the same for abstracts/papers for the 17th Panamerican Conference and 2nd Latin-American Regional IAEG Conference.

Abstract Submission

Authors applying to participate in the conference should submit an abstract of their paper, until July 31, 2023, using the uploading platform in the web page (uploading platform will be available on April 30).

Additional technical, logistic, and touristic information will become available shortly in the web page of the conference:

<https://panamgeochile2024.cl>

panamgeochile2024.cl

The 15th Asian Regional Conference of IAEG in Dhaka, Bangladesh on November 27-28, 2025

Conference venue

Bangabandhu Conference Center/InterContinental Hotel (Sheraton Hotel) or Pan Pacific Sonargaon Hotel, Dhaka, Bangladesh.



Conference size

About 250 to 300 attendees, 50 from neighboring countries including Nepal, India and 50 from other countries including Japan, Europe & others.

Proposed Field Excursion

1. "Padma Bridge en route to UNESCO World Heritage site Sunderbans"



2. "Bangabondhu Karnafully Tunnel" en route to world's largest Sandy Sea Beach Cox's Bazar.



8. MEETING INFORMATION

Savoie, France, July 5-12th, 2024

14th ISL (International Symposium on Landslides) & RSS (Rock Slope Stability)

14TH ISL & RSS

ISL (International Symposia on Landslides) is a quadrennial event organized under the patronage of the Joint Technical Committee on Natural Slopes and Landslides (JTC1) of the International Society for Soil Mechanics and Geotechnical Engineering, the International Society for Rock Mechanics and the International Association for Engineering Geology since 1972.

ISL2024 is the 14th ISL and is hosted in France for the first time.

RSS (Rock slope Stability) is a recurrent event, almost 5 symposiums since 2010. Since 2016 the event is organised under the patronage of the French national program C2ROP.

The two events merge into a single event in 2024.

The congress center « Le Manège » and the city of Chambéry

- More than 1400 rooms in neighboring of the congress center
- Comfortable hotels (from 1 to 4 stars)

**14th ISL
(International
Symposium on
Landslides)
&
RSS
(Rock Slope Stability)
2024**



**CHAMBÉRY
(SAVOIE, FRANCE)
5-12 JULY 2024**

NATIONAL CONTEXT

The French community takes opportunity of a strong network involved in geosciences and geomechanics applied to slope instabilities.

This forthcoming event is supported by the following institutions, all being representative of the French community involved in slope engineering:

- The CFMR (French Society for Rock Mechanics)
Visit the website: <https://www.cfmr-roches.org/>
- The CFMS (French Society for Soil Mechanics)
Visit the website: <https://www.cfms-sols.org/>
- The CFGI (French Society for Engineering Geology)
Visit the website: <http://www.cfgi-geologie.fr>



IMPORTANT DATES

- Symposium: From Monday 8th to Friday 12th July 2024
 - Welcome ceremony on Sunday 7th 2024 (Inscription, Ice breaker, JTC1 meeting)
 - Summer school from Thursday 4th to Sunday morning 7th July 2024
- Agenda
 - Call for abstracts and new web site opening: January 2023
 - Extended abstracts submission deadline: 30 September 2023
 - Review and response to authors: 15 December 2023
 - Revised version submission: 15 February 2024
 - Last revision round and final submission: 15 March 2024
 - Registration opening: 15 January 2023
 - Early Bird registration until 30 March 2024



VENUE

The Conference will be held at the Congress Center "Le Manège". Located in Chambéry downtown, near the old historical city, Le Manège is a restored building dating back to the Sarde period, which can welcome up to 400 attendees. Additional features are as follows:

- ▶ A large room (700 m²), newly reconstructed and designed to welcome social events
- ▶ Up to 8 additional separate meeting rooms, all equipped with screens and sound/audio system
- ▶ More than 1400 hotel rooms in neighboring comfortable hotels (from 1 to 4 stars)

14th IS Landslides 2024
including IS RSS 2024
Chambéry, France, July 2024

JTC1

Website: <https://www.isl2024.com/>

Busan, Korea, August 25-31st, 2024

IGC 2024 The 37th International Geological Congress



The 37th International Geological Congress will be co-hosted by the Korea Institute of Geoscience and Mineral Resources (KIGAM) and the Geological Society of Korea (GSK) in Busan, Republic of Korea, on August 25-31, 2024.

IGC 2024 Busan will contribute to establishing a global network of “E-geology”, such as a “Virtual Fieldwork Program” connecting important geological sites through the internet. Access to relevant information about important geological sites will be available online. This will lead to a new evolution in the future of geological science education.

Conference Information

Website: <http://www.igc2024korea.org>; E-mail: info@igc2024korea.org; Tel: +82-51-711-0043

Registration

The online registration is open until **26 (Fri.) Jul 2024** at 24:00 p.m. (KST, UTC/GMT+09). The Early Bird Registration deadline is April 26, 2024. Please refer to <https://www.igc2024korea.org/content/14409> for the detailed information.

Call for Abstracts

The banner for the call for abstracts has a dark blue background with a glowing blue globe on the right side. On the left, there are two circular logos: the IGC 2024 logo and the IUGS logo. The IGC 2024 logo includes the text 'IGC 2024 The 37th International Geological Congress 2024'. The IUGS logo includes the text 'IUGS International Union of Geological Sciences'. In the center, the text 'The 37th International Geological Congress' is written in large, white, bold letters, with '25-31 August 2024 Busan, Korea' below it. Below this, the text 'ABSTRACT SUBMISSIONS ARE NOW OPEN!' is written in large, yellow, bold letters. Underneath, there is a paragraph of text: 'It is a great pleasure to announce that Abstract submissions for oral and poster presentations for IGC 2024 are now open. Hosted by IUGS and organized by the organizing committee of IGC 2024, the 37th International Geological Congress provides a wonderful opportunity for academic updates, business exchanges and global networking in geology and geoscience. Don't miss chances to enjoy Korean culture.' At the bottom left, the website 'www.igc2024korea.org' is listed. At the bottom right, there is a section titled 'IMPORTANT DATES' with three yellow buttons: 'Abstract Submission ~ 16 Feb. 2024', 'GeoExpo Registration ~ 31 May 2024', and 'Field Trip Registration 8 Jan. 2024 ~ 26 April 2024'.

Algiers, Algeria, October 6-9th, 2024

18th African Regional Conference on Soil Mechanics and Geotechnical Engineering



The 18th African Regional Conference on Soil Mechanics and Geotechnical Engineering will be held in Algiers, Algeria on October 6-9, 2024. The conference will provide keynote lectures, technical sessions and panel discussions on diverse topics, and a forum for exchange and discussion between engineers, professionals, scientists, researchers, equipment or solution providers operating in the field of soil mechanics and geotechnical engineering. In addition, social activities and technical tours will be organized. The exhibition will bring the maximum of professional partners to animate the conference and allow participants to exchange the solutions offered by professionals and answer their eventual concerns. The proceedings of the conference will be published with open access. The conference will provide awards for best papers, best presentations, and best industrial projects.

Conference Information

Website: <https://algeos-dz.com/18ARC.html>; **Email:** info12ARC@algeos-dz.com

Tel: +213-21-24-7224

Important Date for Abstract and Paper Submission

September 15, 2023 - Deadline of final submission abstract

October 15, 2023 - Notification of abstract acceptance

January 15, 2024 - Submission of draft manuscript for review

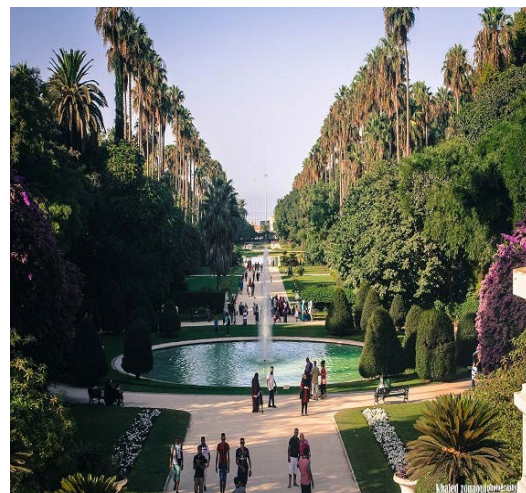
March 15, 2024 - Notification of paper acceptance

April 15, 2024 - Submission of final paper

Social Program



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Sydney, Australia, November 20-22th, 2024

5th International Conference on Transportation Geotechnics 2024



5th International Conference on Transportation Geotechnics will be held in Sydney on November 20-22 in 2024. The Conference will aim at promoting concepts and applications predominantly in the fields of transport infrastructure design, ground improvement, sustainability and circular economy perspectives, and natural hazards mitigation. This major event will act as a platform to disseminate the most recent research and field advances to the geotechnical community around the globe through active pathways of academia and practice. Outstanding Keynote lectures and State-of-Practice presentations, and brain-storming technical discussions will contribute to three days of scientific and technical discourse, followed by attractive excursions encompassing the awesome natural landscape of the state of New South Wales (NSW).

Conference Information

Website: <https://www.ictg2024.com.au/>; Tel: +61-2-9265-0700

E-mail: ictg2024@arinex.com.au (for general enquiries) ;

ICTG2024@uts.edu.au (for technical and Sponsorship Enquiries)

Call for abstracts

The organizing committee is calling for abstracts. Please refer to <https://www.ictg2024.com.au/abstracts/> for the detailed information.

9. CONTACT INFORMATION

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