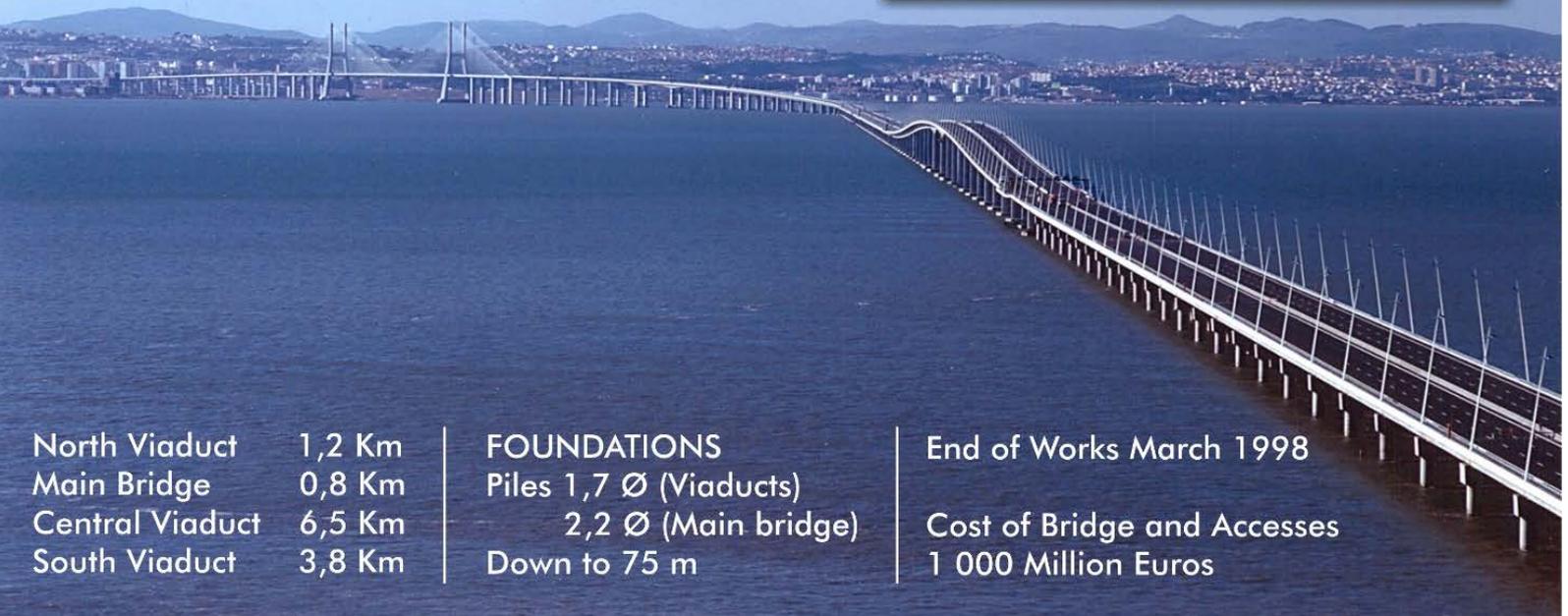




## BRIDGE OVER THE TAGUS RIVER IN LISBON AREA (PORTUGAL)

VASCO DA GAMA BRIDGE (12,3 Km)



North Viaduct	1,2 Km
Main Bridge	0,8 Km
Central Viaduct	6,5 Km
South Viaduct	3,8 Km

<b>FOUNDATIONS</b>
Piles 1,7 Ø (Viaducts)
2,2 Ø (Main bridge)
Down to 75 m

End of Works March 1998

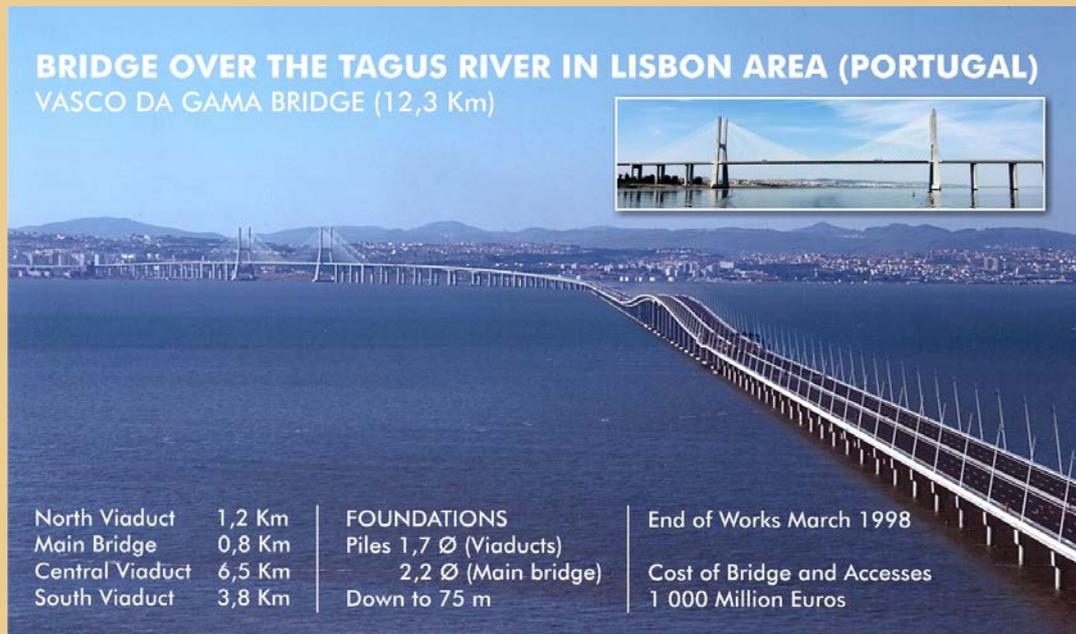
Cost of Bridge and Accesses  
1 000 Million Euros

# IAEG

## NEWSLETTER

Issue No.3, 2021  
Website: [www.iaeg.info](http://www.iaeg.info)  
Electronic Version

# Cover Story



VASCO da GAMA BRIDGE in LISBON (PORTUGAL)

The long Vasco da Gama Bridge crosses the estuary of the Tagus River and connects Lisbon to the municipality of the left bank of the river. It is located in a seismic area which was very much affected in 1755 and 1909 by strong earthquakes (intensity X and X-IX).

The estuary of the river is filled with a very thick Holocene alluvial complex reaching the maximum depth of 75 m overlying a Plio-Pleistocene complex which served as foundation of the long piles, 2,2m in diameter for the main Bridge and 1,7m in diameter for the Viaducts.

Some units have been identified in the alluvial deposits (mud, muddy sands, medium sands with silty-clayey content and coarse to medium sands with some layers of gravels and cobbles, at the base of the alluvial complex). The deposits present a complex bedding characterized by brusque lithological changes.

Provided by Ricardo Oliveira  
(Honorary President of IAEG)



# IAEG NEWSLETTER

Electronic Version

Issue No.3, 2021

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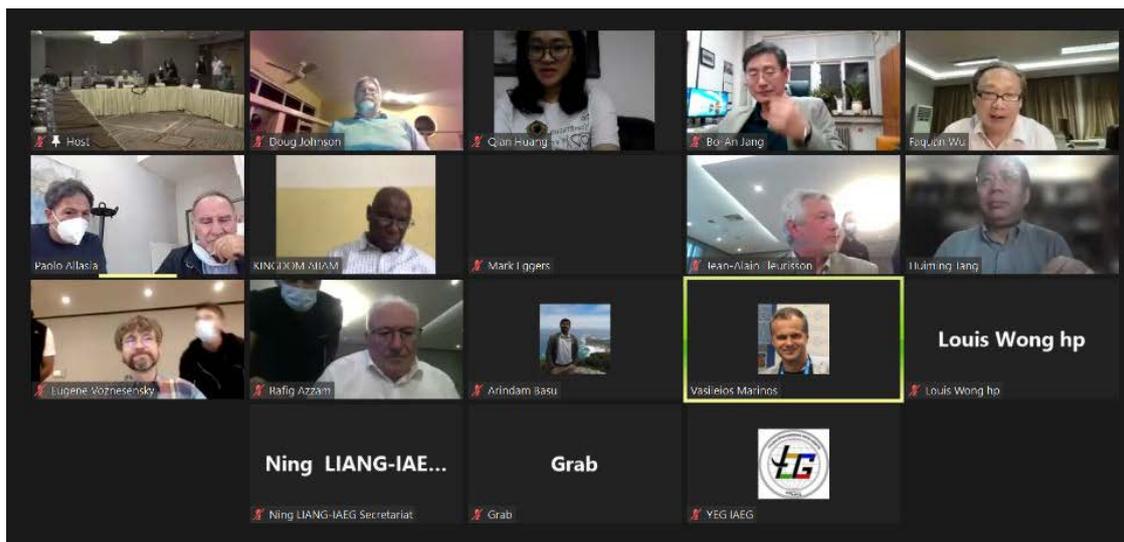
Edited by the IAEG Secretariat, Shaoxing, China

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## IAEG Executive Committee Meeting 2021

The IAEG Executive Committee met in hybrid form on October 6th, 2021 during the 3rd European Regional Conference, 5 members attended on-site in Divani Caravel Hotel of Athens while 12 members attended online via Zoom platform. Several topics and issues were presented and discussed, such as issues related to the definition and scope of engineering geology and the integration of geology to engineering in the research papers or applied papers in journal, evaluation and management of Commissions, collaboration between IAEG and Geosciences, proposal of IAEG joining the the Deep-time Digital Earth (DDE). Information was given on the next IAEG Executive Committee and Council meetings which are going to be held in September next year during the 14th IAEG Congress in Chengdu, China, IAEG will host the FedIGS meeting for the year 2022 at the same time.

In addition, annual reports on 2020-2021 were presented by the Secretary General, Treasurer, Vice Presidents, BOEG, Website, YEG and advisory board. Samuel Goodchild, Associate Editor of Springer, joined the meeting for answering questions related to publishing issues as well.



## FedIGS Board Meeting 2021

FedIGS Board Meeting 2021 (Video Conference) was held on October 13, 2021. FedIGS President Xiating Feng chaired the meeting. As the board members, IAEG President Rafiq Azzam, IAEG Past President Scott Burns and IAEG Secretary General Faquan Wu attended the meeting. All board members gave brief reports on their societies and had further discussions on issued they were interested in. Achievements were achieved as listed below,

- Considering the wide range of interests that ITA has, it will not join FedIGS;
- It would be timely to organise another FedIGS conference on the lines of GeoEng2000;
- The cooperating societies should arrange for a FedIGS session at their respective major international conferences with a defined theme;
- JTC1 should make clear the qualification for the Hutchinson Lecture to prevent misunderstandings and/or misapplications.

It was approved that FedIGS Board Meeting 2022 would be invited by IAEG during IAEG Congress 2022 on September 14-20, 2022 in Chengdu, China.

## YEG ACTIVITIES

The 82<sup>nd</sup> EAGE Annual Conference and Exhibition 2021 in Amsterdam, Netherlands from 18<sup>th</sup> to 21<sup>st</sup> of October has come to an end. International Association of Engineering Geology (IAEG) and the Young Engineering Geologists (YEG) have participated with an on-site booth in the exhibition zone during the 4 exhibition days. During the conference and exhibition, strong networking with key companies in the industry and fruitful discussions with young students interested in joining our community took place. Relevant companies showed interesting in participating in future IAEG events with the respective booth opportunities. Engineering Geology was one of the main cores of future geoengineering sustainability as it was presented also during the conference. By sharing experiences and transferring know-hows - we can grow as a community. Official meetings with EAGE representatives took place with YEG Chair in order to initiate collaborative actions and activities for young members. IAEG and YEG had renewed their participation for the next year EAGE conference in Madrid in June 2022. Until then we hope to meet you in one of our upcoming events. Photos of IAEG-YEG booth during the exhibition have been attached below.





# NEWS OF IAEG COUNCIL MEETING 2021

The IAEG Council Meeting was held on October 7th 2021 in Divani Caravel Hotel, both online and on-site. Representatives from 41 national / regional groups and 9 commissions, past presidents, Executive Committee members attended the meeting. The meeting was chaired by Rafiq Azzam, the president of IAEG.

Due to the impact of the COVID-19, EUROENGE0 2020 was postponed to 2021, many members cannot be at the scene for traveling restriction. However, epidemic has not affected everyone's enthusiasm for attending the meeting, the participants greeted with each other warmly online.



President Rafiq Azzam gave an overall report on the operation of IAEG and the Secretary General Faquan Wu gave a general report on the daily work of the secretariat over the past two years. The VPs, Bulletin, Website, YEG and the Advisory Committee gave their brief reports on the work they were responsible for respectively. The Council approved the 2020 financial report and 2021-2023 forward-looking budgets presented by the Treasurer Jean-Alain.

In 2020-2021 we have seven new national groups established and three inactive groups reactivated under the endeavor of VPs. The impact factor of Bulletin has jumped to 4.298 in 2021, which is the highest in IAEG history. The YEG is keeping playing active role in promoting activities among young professionals , continuous "e-Webinar" goes monthly online with IAEG members. The advisory board summarized a detailed evaluation on all commissions and 4 commissions were advised to be closed and 1 commission is suggested to continue considering its importance if right persons could be found to take over them.

The proposal of nominating Prof. Paul Marinos as the Honorary President has been approved by the council, Prof. Paul Marinos gave his thanks to the Council for granting him the great honor, sadly Paul passed away just two days after the Council Meeting. The result of RWP 2020 has been announced by Rafiq at the council meeting that Dr. Yifei Cui nominated by China National Group won the winner of RWP 2020.

The proposals of organizing the 14th Asian Regional Conference and the 2nd European Regional Conference were presented by Malaysian and Croatian National Groups, but the decisions will be made at the council meeting held in Chengdu next year.

The proposal for IAEG joining the Deep Time Digital Earth (DDE) project was introduced by Faquan Wu, the council accepted the proposal and IAEG supports the application for joining DDE.

The China national group introduced the organizing works of IAEG XIV Congress which is going to be held in hybrid form on September 14-20th, 2022 in Chengdu, China. The congress has set 15 topics and 451 abstracts have been received already.

The election of IAEG officers for the term of 2023-2026 will take place at the congress, the collection work of nominations is going to be triggered in January 2022.

The new approved Science and Technology Awards of IAEG (STA-IAEG) and International Research Program of IAEG (IRP-IAEG) have been introduced to the Council by Faquan Wu. The collected for nominations of STA-IAEG was launched in August 2021. The IRP-IAEG is going to be launched in April 2022 and selected by Executive Committee at the mid-year meeting in 2022. They will be both awarded at the occasion of IAEG XIV Congress in Chengdu.



## 03 NEWS OF 1st SARC

The 1st South American Regional Conference was virtually held from September 8th to 10th with the slogan of *“Geology Applied to Society Development”*. There were seven keynote speakers from Portugal, Argentina, Peru, and Mexico; forty-seven oral presentations of accepted papers, one webinar and the presence of more than 100 attendants from Argentina, Bolivia, Colombia, Chile, Peru, Portugal and Uruguay. IAEG President Rafiq Azzam and IAEG Vice President of North America D. Jean Hutchinson attended the meeting.



### KEYNOTE SPEAKERS



**Raul Sarra Pistone**



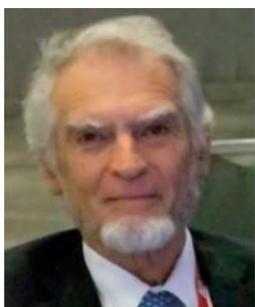
**Juan Antonio Bustinza**



**Leonor M. L. Trucco**



**Daniel Gonzalo Jerez**



**Alejandro Pujol**



**Irasema Alcantara Ayala**



**Sandra Villacorta-Chambi**



**Jose Ricardo Gatica**

## 04 NEWS OF 3rd ERC

The 3rd IAEG European Regional Conference was held on October 8-10, 2021 in Divani Caravel Hotel, Greece. More than 400 delegates from over 40 countries attended this conference online and onsite. The whole conference was held in hybrid mode, the theme of this conference is "Leading to Innovative Engineering Geology Practices". The opening ceremony and opening lecture, RWP lecture were host in the morning on October 8th, IAEG awards HCM, MAM, Honorary President, Honorary Membership RWP were awarded to the recipients at the opening ceremony and thanks speech were given online by the awards recipients.

The scientific sessions was run on Friday the 8th and Saturday the 9th, there are 17 sessions including 14 sessions host in hybrid form. Totally 11 keynote lectures were given during the conference, 6 of them was in-house and 5 virtual. Two parallel rooms were host both in-house and virtual presentations while a 3rd room was host virtual-only presentations. Commissions meetings and pre-conference workshops were also organized during the conference.



Virtual Platform of the Conference



Photo of scientific sessions at the conference in-house

Two field trips were organized after the conference in Central Greece and one in are of Athens (Attica). A booth with banners of IAEG was put in the conference for promotion, a screen was also set for playing several videos and IAEG events, flyers. Sponsorship from many companies provided very important supports to the conference, special "thank you" was put on Banner with the sponsors to express sincere thanks to the Sponsors.

**In Memory of Paul Marinos, January 1st, 1944 – October 10th, 2021**

Paul Marinos, the past president of IAEG for the term 1994 to 1998, passed away on Sunday, October 10th, 2021 aged 77. Sincere and profound tributes and condolences are extended to his family as well as his friends and his colleagues of IAEG. Professor Paul Marinos has given extraordinary and long-term contributions to the development of IAEG all through his life, he was awarded as the Honorary President of IAEG on October 8th, 2021 during the 3rd European Regional Conference.



For more than 40 years Professor. Paul Marinos acted as an independent consulting engineer in Engineering Geology and Geotechnics for important engineering structures and infrastructure works around the world. Paul's first acquaintance with IAEG was an issue of a new magazine titled "Bulletin of Geological Engineering" in 1972 and his first contact with IAEG was at the 3rd congress in Madrid (Spain) in 1978. Since 1984 he has participated in all of the international and official meetings of the IAEG. He organized a meeting in Greece in 1988 on a very particular theme: the protection of monuments and historical sites. Paul acted as the vice president for Europe for the term 1990-1994 and he was elected as the President of IAEG for term 1994-1998 at the Congress in Lisbon in 1994. During his presidency in 1997, he guided the Association to change the name to the "International Association for Engineering Geology and the Environment" which continues to this day to highlight the need for engineering geologists to contribute in the environmental field. He also considered it to be very important to emphasize and maintain the Association's original goals as a learned society involved in the geotechnical domain, engineering design, construction and development. Consequently, he was the driving force to begin a new period for the IAEG journal "Bulletin of Engineering Geology and Environment", and from 1998 the magazine appeared quarterly rather than biennially and was published by Springer. He initiated long discussions with the publisher to ensure that a high-quality journal and benefits for IAEG members were obtained. Paul made great efforts to keep the overall membership of IAEG intact and even slightly increase in the number of members under the impact of economic constraints in the 1990s. Ten new national groups were accepted and two old groups returned during this period and Paul made frequent visits to the USA to persuade AEG to become the USA national group of IAEG.

During his tenure he traveled extensively around the world attending important conferences and visiting a large number of countries to identify key people and encourage them to become involved in the countries where there was no IAEG activity. Paul Marinos gave excellent lectures on many tours - the Jahns distinguished lecture (for AEG across USA), the CGS cross Canada lecture tour, and many tours in Europe, Australia, New Zealand and Asia, in addition to the prestigious Glossop medal lecture in UK. He was a great Ambassador for IAEG in the world in his personal way of weaving relationships in every part of the globe, effectively contributing to IAEG's growth and involvement in the most remote countries.

Paul also developed and strengthened the special relationships and interactions with the sister societies ISRM, ISSMGE, ITA and IAH for many years, breaking down traditional barriers. All issues of common interest were addressed with an open spirit and this collaboration led to the co-sponsorship of events and wider mutual communications; in this way the foundations were laid for the future Federation (FedIGS).

Professor Paul Marinos has shown deep and continuous commitment to the IAEG and has often helped the IAEG Council members make decisions in line with the IAEG Statute of which he has a profound knowledge. Together with the past presidents Ricardo Oliveira and Carlos Delgado, he contributed to the drafting of the 50th Anniversary of the history of IAEG which was published at the congress in Turin in 2014, ensuring the connection of activity from past to present and into the future.

In 2000 Professor Paul Marinos received the Hans Cloos Medal of IAEG for his excellent contribution to the development of engineering geology. For his extraordinary and long-term merits and for the prosperity and development of IAEG, Paul Marinos was nominated as an Honorary President on October 8th, 2021 at the 3rd European Regional Conference held in Athens, unfortunately just two days later, he departed this world. He left with great happiness and satisfaction after being informed about the successful ending of the 3rd European Regional Conference. IAEG was one of his great loves in life, his extraordinary contribution to engineering geology in the world will last forever, his commitment to IAEG will remain in the heart of all IAEG members, his expectations of maintaining IAEG's original goals will be promoted from generations to generations.

On behalf of the IAEG Executive Committee, we pay outstanding tributes to Professor Paul Marinos and express our great sympathy to the Marinos family. All his contributions and devotions to IAEG will be cherished forever with full respects. May his soul rest in peace, may his spirit bless IAEG. We will miss him forever.



Rafig Azzam  
President of IAEG



Ricardo Oliveira  
Honorary President

#### References

1. Azzam, R., Wu, F., Lollino, G. et al. In memory of Paul Marinos, January 1st, 1944 – October 10th, 2021. Bull Eng Geol Environ 80, 8307–8308 (2021).
2. Engineering Geology/News/Paul Marinos - Obituary  
<https://www.journals.elsevier.com/engineering-geology/news/paul-marinos-obituary>



## CALL FOR NOMINATIONS OF STA-IAEG

IAEG Secretariat is now calling for nominations of *Science and Technology Awards of IAEG (STA-IAEG)*, which are awarded biennially. The first **STA-IAEG** will be awarded at the occasion of the IAEG XIV Congress 2022 in Chengdu, China on September 14-20, 2022. The President of IAEG has shown his strong support on this award and given a President's address for the STA-IAEG.

The nominations should be submitted to the Secretary General by the deadline requested in the notification. For more information and guidelines for the STA-IAEG nomination, please refer to the Ordinance of S-T Awards of IAEG. If you have any questions about the STA-IAEG Nomination, just feel free to contact [iaegsg@163.com](mailto:iaegsg@163.com).

Link of the Ordinance of S-T Awards of IAEG:

<https://www.dropbox.com/s/t8d7nf92cvct3l5/Ordinance%20of%20S-T%20Awards%20of%20IAEG.pdf?dl=0>

Application form:

<https://www.dropbox.com/scl/fi/x2k3yferm63ntlw9gsmhw/Application-Form-of-STA-IAEG.doc?dl=0&rlkey=zikr8ui4r9hez1ozcx39ilvl1>

### **Brief Introduction on STA and IRP**

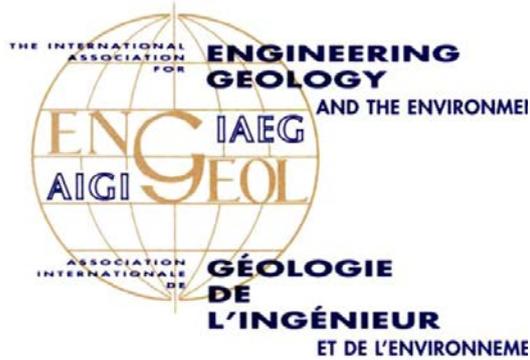
As one of the leading academic societies, IAEG is containing huge superiority in excellent membership in many NGs and RGs around the world, persistent high quality academic activities, influential website and high index official journal and so on.

In Statue, IAEG is aiming in promoting and encouraging the advancement of Engineering Geology through technological activities and research. Therefore, Science and Technology Awards of IAEG (STA-IAEG) and International Research Program of IAEG (IRP-IAEG) were initiated in IAEG Council meeting on September 23, 2013, Beijing, China, and approved in IAEG Council meeting on September 14, 2014, Torino, Italy.

STA-IAEG is aiming at promotion of the development of the engineering geology discipline, awarded biannually, includes two separate prizes: the Academic Achievement Award (AAA) and the Technology Progress Award (TPA). The AAA is awarding outstanding new developments in understanding and the TPA is awarding innovative new methods, new technologies, new processes, new software, new materials or new equipment in the field of engineering geology and the environment.

IRP-IAEG is intended to comprise several international research projects focusing on the theme, suggested and selected by IAEG Executive Committee in the purpose on the promotion of the development of the discipline of Engineering Geology. The IRP-IAEG is conducted through the IAEG Commissions. Any project can be proposed under the program, but generally no more than 5 projects will be active over the same period. The maximum duration of each research project is 4 years.

IRP-IAEG will be launched about April in 2022, with the theme "Engineering Geology and Habitable Earth". The contest and award ceremony of IRP-IAEG will be hosted at the occasion of the IAEG XIV Congress 2022 in Chengdu, China, September 14-20, 2022.



<b>President:</b>	Prof. Rafiq Azzam
<b>Past President:</b>	Prof. Scott Burns
<b>Secretary General:</b>	Prof. Wu Faquan
<b>Treasurer:</b>	Dr. Jean-Alain Fleurisson
<b>Vice Presidents</b>	
Africa:	Prof. Tamunoene Kingdom Abam
Asia:	Prof. Huiming Tang
	Prof. Bo-An Jang
Australasia:	Mr. Doug Johnson
Europe:	Dr. Vassilis Marinos
	Prof. Eugene A. Voznesensky
North America:	Prof. Jean Hutchinson
South America:	Mr. Norberto Jorge Bejerman

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## PRESIDENT'S ADDRESS ON INTERNATIONAL RESEARCH PROGRAM AND SCIENCE AND TECHNOLOGY AWARDS OF IAEG

Dear IAEG members, colleagues and friends,

The IAEG is pleased to announce the first start of the applications of International Research Program (IRP) and Science and Technology Awards (STA). We have very high expectations for IRP and STA on the purpose to encourage the advancement of Engineering Geology through supporting research program and awarding the outstanding achievements of engineering geological activities on a worldwide basis.

At such significant moment, I would like to express my sincere thanks for the involvement of our Past Presidents, our members of Executive Committee and Council meeting, as well as for the strong commitment of Secretary General.

In the future, the IAEG will firmly keep up with the times and promote the development of the discipline of Engineering Geology, playing a more important role in the scientific and technical achievements.

Finally, I wish all of IAEG members, colleagues and friends good health and happiness in life!

Professor Rafiq Azzam

President of IAEG

Faculty of Georesources and Material Engineering

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Email: [azzam@lih.rwth-aachen.de](mailto:azzam@lih.rwth-aachen.de)



## CALL FOR MEMBERSHIP UPDATE 2021

By November 1, 2021 the number of IAEG memberships is 3646 from 69 national/regional groups, 1410 with Bulletin, 2214 without Bulletin. The Bulletin will be delivered to the members through the email address provided by the national groups.

VP	No.	NG	total	With B.	Without B.	Associate members
Doug Johnson	1	Australia	335	151	183	1
	2	New Zealand	457	173	284	0
Vassilis Marinos	3	Albania				
	4	Austria	20	10	10	0
	5	Bulgaria	10	7	3	0
	6	Croatia	24	6	18	0
	7	Cyprus				
	8	France	91	50	30	11
	9	Georgia	16	1	15	0
	10	Greece	92	23	69	0
	11	Hungary				
	12	Italy	95	85	10	0
	13	Portugal	66	38	27	1
	14	Romania	18	0	18	0
	15	Serbia				
	16	Slovenia	27	17	10	0
	17	Spain	35	35	0	0
	18	Switzerland	66	66	0	0
	19	Turkey	116	0	116	0
Eugene A. Voznesensky	20	Belorussia	6	3	3	0
	21	Netherlands	30	30	0	0
	22	Lithuania				
	23	The United Kingdom	384	384	0	0
	24	Belgium				
	25	Czech Republic	25	11	14	0
	26	Denmark				
	27	Estonia				
	28	Finland				
	29	Germany	468	41	427	0
	30	Iceland				
	31	Ireland				
	32	Norway				
	33	Poland				
	34	Russia	85	30	55	0
	35	Slovak Republic				
	36	Sweden				
	37	Kyrgyzstan	1	1	0	1
	38	Uzbekistan				
Tamunoene Kingdom Simeon Abam	39	Algeria				
	40	Nigeria	82	29	53	0
	41	South Africa	208	3	205	0
D. Jean Hutchinson	42	Canada				
	43	USA	152	0	152	0

Norberto Jorge Bejerman	44	Argentina	15	15	0	0
	45	Bolivia	15	12	3	0
	46	Brazil	24	15	9	0
	47	Chile	30	9	21	0
	48	Colombia	13	12	1	0
	49	Costa Rica	18	13	5	0
	50	Mexico	5	5	0	0
	51	Paraguay				
	52	Peru	11	6	5	
	Bo-An Jang Huiming Tang	53	Bangladesh	61	3	58
54		China				
55		Chinese Taipei	60	9	51	0
56		HongKong SAS	7	4	3	0
57		India	79	37	42	0
58		Indonesia				
59		Iran				
60		Iraq	14	0	14	0
61		Japan	73	61	6	6
62		Korea	79	0	79	0
63		Malaysia				
64		Mongolia	12	3	9	0
65		Myanmar				
66		Nepal (NGS)				
		Nepal (NSEG)	128	2	126	0
67		Singapore	83	3	80	0
68		SEAGS				
69	Vietnam					
Individual Member			9	7	2	0
Associate Member			1	0	0	0
<b>Total</b>			<b>3646</b>	<b>1410</b>	<b>2216</b>	<b>20</b>



## EVENTS OF NATIONAL GROUPS

### AUSTRIA

- The Austrian Society for Geomechanics is organizing the 70th Geomechanics Colloquium which is planned to be held in Salzburg on Oct 14-16 2021. The conference will focus on i) risk of construction sites, ii) urban tunnelling, iii) new developments in TBM tunnelling, and iv) innovative exploration technologies.
- Organisation of the 15th ISRM Congress 2023 - Challenges in Rock Mechanics and Rock Engineering, which will be held in Salzburg/Austria.
- Many others conferences focusing on engineering geology and geomechanics were still cancelled and postponed due to the Covid-19 situation.
- Some members of the Austrian working group of engineering geology are involved in teaching at different Austrian universities, e.g. University of Natural Resources and Life Sciences in Vienna, University of Vienna, University of Salzburg.
- We take part in various expert boards and committees for further developing engineering geological standards (e.g. to standardise geological tunnel documentation)
- We are an active member in the IAEG Commission No. 38 Rockmass 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

In this critical pandemic Corona time, IAEG Bangladesh National Group continues online webinar talk by inviting speakers from different countries including Bangladesh, China & India. As a part of this program IAEG \_BNG invited Engr. Md. Shakil Mahabub, Mid Level Geotechnical Engineer, Matarbari 1200MW Ultra Super Critical Coal-Fired Power Project to present a talk on "Current Status & Geotechnical Issues For Sustainable Construction of Matarbari Mega project, Bangladesh" on August 7, 2021 (Saturday). He highlighted the current status & importance of Geotechnical issues for sustainable construction of this mega project of Bangladesh. Next invited talk was held on Sept.2021 by a speaker from China on site investigation and ground hazard assessment. The webinar 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 Mr.Feruj Alam (Secretary Geeneral of BNG). Participants, including geoscientists, academics, engineers and geoscience students and graduates were attended this webinar talk. .

School of Civil Engineering, Chongqing University China & School of Education, Kagawa University Japan also invited IAEG\_Bangladesh National Group founding President Prof. Dr. ATM Shakhawat Hossain to present a webinar talk on "Climate Variability, Risk Assessment & It's Impact On The Landslide Hazards In The Rohingya Refugees Camps, Cox'sbazar, Bangladesh-----A Threat For Sustainable Community Living". Many participants from China and Japan attended these events and the speaker shared his experience with colleagues of south Asian countries to attain sustainability in the world's largest Refugee camp area at Ukhia, Cox'sbazar, Bangladesh.

## **BELGIUM**

In 2021, RockEnGeo.be (Belgian Society for Engineering Geology and Rock Mechanics) had 88 members, among which 52 subscribed as ISRM members and 69 as IAEG members (our members can subscribe to both the ISRM and IAEG).

Due to the pandemic situation, the activities were slowed down in 2021. Several Council meetings were held online during the first part of the year (25th February, 4th May) and the General Assembly was organized on 7th June.

Among the achievements in 2021, a procedure for the professional recognition of (experts) geotechnicians has been developed in collaboration with the Belgian national group for soil mechanics. The online process was officially be launched on 1st October and an info-session is forecast, with a networking event.

## **BELORUSSIA**

July 19-25, 2021, members of the Belarusian national group IAEG took part in the scientific and practical seminar with international participation "Regularities of transformation of the ecological functions of geospheres in large mining regions", held at Voronezh State University (Voronezh, Russia), with the participation of leading experts in environmental, geological and mining areas. The seminar was organized with the support of the Russian Foundation for Basic Research and the Belarusian Republican Foundation for Basic Research. The plenary session was held on the basis of the Geological Faculty and the Department of Environmental Geology of Voronezh State University. During the meeting, the issues of transformation of the ecological functions of the geospheres of mining areas were considered; problems of technogenic and environmental safety at enterprises of the mining and processing industry, technogenic and environmental risks and the main directions of the rehabilitation of natural and artificially created water bodies within technogenically loaded territories. Within the framework of the seminar, a discussion platform "Problems of natural and artificially created water bodies in the region" and field conferences "Regularities of transformation of the ecological functions of the lithosphere during the extraction of granite raw materials" in granite quarries in Pavlovsky and Bogucharsky districts of the Voronezh region were organized with field work and observations, and "Environmental monitoring of protected natural areas" based on the specially protected natural area Galichya Gora in the Lipetsk region.

## **BRAZIL**

Brazil National Group promoted and/or organized several events in 2021. In spite pandemic continuity, several online lives and workshops were carried out this year. The results are still surprising and for sure that some events will continue online, as they allow a broader audience and therefore better dissemination of engineering geology.

More than 50 events were broadcast since the implementation of ABGE's YouTube channel, which this September completes a year. The platform also gained notoriety and today has more than 2,000 subscribers. In addition, four online courses were organized as below,

- Autocad for engineering geology and the environment, May/2021
- Introduction to Hydrogeological Modeling using the HEC-HMS, April/2021
- Geo-environmental investigations, June/2021
- Geophysics Applied to Engineering Geology and the Environment, June/2021

## CHINA

### 5th Gu Dezhen Lecture, Zhengzhou, China

The 5th Gu Dezhen lecture was held in Zhengzhou with the theme of Inheritance And Development Of Rock Engineering Geomechanics. Gu Dezhen Lecture is the highest academic lecture in the field of engineering geology in China. It aims to explore the inheritance and development of rock engineering geomechanics and promote the scientific and technological progress in the field of engineering geology. Gu Dezhen's lecture was held offline + online. Professor Tang Huiming, chairman of IAEG, Professor Wu Faquan, Secretary General of IAEG, and more than 150 experts and scholars attended the lecture, including IAEG Vice President Huiming TANG and IAEG Secretary General Faquan WU. The number of participants online was as high as 34000.

As the keynote speaker of the lecture, Professor Faquan WU gave a report entitled Inheritance And Development Of Rock Engineering Geomechanics - Theory And Practice Of Statistical Rock Mechanics.

This high-level academic discussion not only inherits and carries forward Mr. Gu Dezhen's theoretical system of engineering rock mass geomechanics, but also plays a positive role in improving the influence of the discipline and cultivating innovative talents. The number of participants in the online live broadcast was as high as 34000.



### 2021 National Academic Conference On Engineering Geology, Qingdao, China

The 2021 National Academic Conference on engineering geology was recently held in Qingdao. With the theme of "engineering geology and modern ocean", representatives of universities, scientific research institutes, enterprises and institutions from all over the country attended the conference to discuss the national major strategic frontier hot spots and key scientific issues of scientific and technological innovation and Reform in the geological industry.

Faquan Wu (IAEG Secretary General), Huiming Tang (IAEG Vice President), Shengwen Qi (Secretary of IAEG China National Group) and Yonggang Jia (President of IAEG Commission 34) attended the meeting, and gave invited reports respectively.



Faquan Wu



Huiming Tang



Shengwen Qi



Yonggang Jia

The conference has ten topics: *Marine Engineering Geology, Climate Change And Coastal Urban Environment, Rock And Soil Structure And Characteristics, Active Structure And Regional Engineering Geology, Surface Process And Mountain Disaster, Tunnel And Underground Space, Geological Disaster And Environmental Protection, Major Engineering Construction And Environment, Modern Engineering Geology And New Infrastructure And Engineering Geology Education.* The participants had extensive and in-depth exchanges in the form of reports and field visits after the meeting, which offered advices and suggestions on Maritime Power Strategy, the implementation of One Belt, One Road initiative and Beautiful China Construction.



## CHILE

During 2021, Chile National Group has made connections with related Chilean associations (Chilean Geotechnical Society and Chilean Geological Society) to agree mutual collaborations. In August 2021 started a first cycle of technical talks on engineering geology and natural hazards, which will continue until November 2021 in virtual mode. Currently, the Chile National Group is conformed by 33 members and is receiving new membership applications. In the following months it will open to receive applications for student membership. Some members of ACHIGEO have also taken active part of the scientific program of the 1st Regional South American Conference of IAEG held in Cordoba, Argentina (virtual mode) in September 2021.

## COLOMBIA

This event was held virtually from February 22 to 26, 2021, with the support of the Joint Technical Committee on Natural Slopes and Landslides (JTC1) and the Federation of International Geo-engineering Societies (FedIGS), which groups the International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), the International Society of Rock Mechanics (ISRM), and the International Association of Engineering Geology (IAEG). This event was originally scheduled to be held in face-to-face mode in Cartagena, Colombia in June 2020, but due to the SARS-CoV-2 pandemic it had to be postponed for eight months and rescheduled in a virtual platform.

The virtual conference included the presentation of eleven Keynote Lectures. 265 attendees from 34 countries participated. 17 sessions were held on 5 topics in 5 days of conferences, where 102 videos of 114 accepted papers were presented, 27 papers in Weather and Landslides, 6 papers in Landslides and Seismo-Tectonic and Volcanic Activity, 8 papers in Landslides and Human Activities, 14 papers in Effects of Landslides with Emphasis on Infrastructure and Sustainable Development and 59 papers in Landslide Risk Assessment and Management.

The 11 main conferences and the 114 papers are available as open access in the ISSMGE Online Library, with the following link: <https://www.issmge.org/publications/online-library>.

## COSTA RICA

In 2021, Costa Rica National Group has performed 5 webinars, with 9 speakers aiming to inform and train our fellow colleagues on diverse topics. It has also maintained a series of publications explaining and illustrating basic concepts of Engineering Geology and the Environment. These publications are broadcast through our social media channels. In addition, it has shared its opinion on relevant political topics in Costa Rican newscast. More specifically on a proposed legislation related to petroleum and natural gas exploration ban, and public infrastructure exposed to natural hazards.

## CROATIA

In 2021, members published scientific and professional papers, participated in online lectures, conferences and workshops. Also, due to the COVID situation most conferences and workshops took place online. The main goal of our members is to establish and encourage cooperation with colleagues in the field of applied geology and to actively participate in the popularization of engineering geology, especially among younger colleagues, students and companies interested in applying the knowledge and skills of our members in their business.

## GERMANY

Nearly all other major congresses were either postponed or turned virtual or hybrid (online + presence) due to the Corona pandemic. Contributions were made and sessions delivered to a number of meetings. DGGT organized Congress on Foundation Engineering on June 16 and September 22, 2021 virtually. September 19-24, 2021, Congress of the German Geological Society DGGV,

GeoKarlsruhe, KIT, with the theme of “*Sustainable Earth – From Processes to Resources*” was held in a hybrid mode with onsite geological field trips.

## INDIA

The second meeting of the ISEG council was held on July 17, 2021. The meeting decided to host the “**International Conference on Recent Advances in Geotechnics (EGCON 2021)**” from December 9-11 through the virtual mode in association with NHPC Limited. The first circular of the conference was issued on August 12, 2021. The details of the conference are also displayed on the IAEG website as per request of ISEG. A dedicated website <https://www.egcon2021.com> has been launched to manage all the activities of the conference.

## ITALY

In the second half of the 2021, in Italy we started again the organization of some workshop dedicated to topics related to engineering geology. In particular, in September and November the IAEG endorsed the organization of two courses related to deep-seated gravitational slope deformations and landslide monitoring. In particular, in September the IAEG collaborated in the organization of the workshop “Slow2Fast – Mechanisms, activities and impacts of deep-seated gravitational landslides: innovation and applications”, of the Milano Bicocca University.

## JAPAN

5th International Workshop on Rock Mechanics and Engineering Geology in Volcanic Fields (RMEGV2021) was held from September 9th to September 10th, 2021, with the theme of “*Challenges of Solving Engineering Issues around Volcanic Fields - Collaboration between Civil Engineering and Geology*”. This workshop was held by Japanese Society for Rock Mechanics, Japan Society of Engineering Geology, International Society for Rock Mechanics and Rock Engineering, and International Association for Engineering Geology and the Environment.

The RMEGV2021 was scheduled to be held in a hybrid format of on-site and online up to three weeks before the conference. However, due to the announcement of the state of emergency by the Japanese government, this workshop was held in an online format only. And the technical tour in Aso Caldera was canceled, too.

Despite the COVID-19 pandemic, there were 76 participants from 9 countries (Austria, Egypt, Indonesia, Italy, Japan, Portugal, Spain, Turkey and United Kingdom).

There were keynote lectures, oral sessions, poster sessions and exhibitions. The online venue was divided 3 rooms, and keynote lectures and oral sessions were held in Room 1, poster sessions were held in Room 2 and the exhibitions were held in Room 3.

### Room1: Keynote lecture and Oral session

Room 1 was the main room of RMEGV2021. this workshop began at 9:00 on September 9th with the opening ceremony in this room. In this room keynote lectures by 6 prominent researchers from 3 countries (Indonesia, Italy, Japan) and 37 oral presentations were held. In this room there were always 40-50 participants. Due to the time difference, the number of European presenters increased from the Evening. The presenters (affiliation countries) and the titles of keynote lectures were:

1. Prof. Toshiaki Hasenaka (Japan) : Volcanic Events and Magma Interactions before, during and after the Caldera-Forming Eruption of Aso, Kyushu Island, Japan
2. Dr. Luca Verrucci (Italy) : Strength Behaviour in Monoaxial Loading Conditions in Effusive Rocks: the Influence of Porosity

3. Prof. Anna d'Onofrio (Italy) : Seismic Behavior of Neapolitan Pyroclastic Soils
4. Prof. Makoto Kagabu (Japan) : Hydrological Methods for Understanding the Shallow Groundwater Flow in Volcanic Regions with Abundant Groundwater Resources
5. Dr. Asnawir Nasution (Indonesia) : The Geothermal Energy Resource Developments and their Hazards of the Indonesia Volcanic Areas
6. Prof. Manuela Cecconi (Italy) : Pozzolanics Soils: a Natural Resource for Soil Improvement Techniques

**Room 2: Poster session, Room3: Exhibition**

In Room 2, 18 poster presentations were held. In Room 3, 6 exhibitions by companies and universities were held. Presenters and exhibitors had each breakout rooms and they had presentations in their rooms. At the closing ceremony scholarship was awarded to 11 young scholars who were 35 years old or younger.

Although many academic conferences around the world are being postponed by COVID-19 pandemic, this workshop was able to be held as originally planned. Furthermore, in a hurry this workshop was changed to be held in an online format only, but it was able to be completed without any major trouble. This was the result of the efforts of all concerned people.



A discussion in an oral presentation



## KOREA

The 2021 spring conference of KSEG was held in Jeju Island on April 8-9, 2021 with 146 participants and 76 papers. At the conference, Prof. Yong-Seok Seo was elected as the new president for KSEG (2021-2023). During the conference, the key note speeches were delivered in a form of pre-recorded lecture by Dr. Janusz Wasowski (IRPI, Italy) and Prof. Tomochika Tokunaga (The University of Tokyo, Japan). The title of Dr. Wasowski's talk was "Assessment of potential and existing slope instability hazards through regular satellite-based InSAR monitoring" were offered, and that of Prof. Tokunaga was "Tsunami-induced seawater intrusion and aquifer recovery: Numerical simulations, geological/geophysical surveys, and information sharing with local authority".



The 2021 fall conference of KSEG will be held as an e-conference from November 11-12, 2021. The KSEG is planning to organize a special session of East Asian National Groups including Korea, China, Chinese Taipei, and Japan to enhance international collaborations.

## MALAYSIA

### Expert Panel Discussion on Seismic Hazards in Malaysia

Malaysia has developed Malaysia National Annex to Eurocode 8: Design of Structures for Earthquake Resistance (MS EN 1998-1:2015 (National Annex:2017)). Yet the issue is still being debated on the necessity for compliance. The discussion was made on several topics included:

- The needs and application of seismic hazard map of Malaysia by Dr Frederick Tating
- Rock fatigue and seismic events by Mohd For Mohd Amin
- Potential liquefaction due to seismic hazards in Malaysia by Dr Khamarudin Ahmad
- Seismic hazards assessment in Malaysia from geotechnical prespective by Dr Denny Tami

2021 SEG RM WEBINAR SERIES  
EXPERT PANELS DISCUSSION ON SEISMIC HAZARD IN MALAYSIA

Panel 1: Dr. Frederick Francis Tating (JMS)  
Topic: Seismic Hazard Map of Malaysia: Needs and Applications

Panel 2: Mr. Mohd For Mohd Amin (SEGRM)  
Topic: Rock Fatigue and Seismic Events

Moderator: Dr. Khamarudin Azahari Razak (MASE, UTM)

Panel 3: Assoc. Prof. Dr. Khamarudin Ahmad (UTM)  
Topic: Potential Liquefaction due to Seismic Hazards in Malaysia

Panel 4: Dr. Denny Tami (Java Offshore)  
Topic: Seismic Hazards Assessment in Malaysia: Geotechnical Perspective

8<sup>th</sup> July 2021  
3:00 - 5:00 PM

Managed by: GEO DREAM

SCAN TO REGISTER

MALAYSIA SOCIETY FOR ENGINEERING GEOLOGY AND ROCK MECHANICS

## Forum on Soil and Rock Description for Civil Engineering Purposes in Malaysia – Revisiting Current Practice and Future Needs

The forum was organized on July 10, 2021 to review current practice of soil and rock description for civil engineering purposes in Malaysia. Currently, Malaysian Standard for Site Investigation (MS2038:2006) is under review. Most of the content for the proposed revision is based on British Standard (BS5930:2015).

The forum reviewed current practice and to understand on necessity for future needs. Comparison was also made with Hong Kong Geoguide on Soil and Rock Description (Geoguide 3:2017) and American's ASTM 2488.

Three presentations were made as follow:

- Current state of soil and rock description practice in Malaysia: Personal observations by Ahmad Sheeql Shah
- Some observations on the practice of soil and rock description for dam and tunnel projects in Malaysia by Roziahisham Ab Wahid
- Background and perspectives on soil and rock description in Malaysia: Are we doing the right things and what's next? By Abd Rasid Jaapar

**FREE** FORUM ON SOIL AND ROCK DESCRIPTION FOR CIVIL ENGINEERING PURPOSES IN MALAYSIA  
**REVISITING CURRENT PRACTICE AND FUTURE NEEDS**

10 July 2021  
Saturday  
10am-12pm  
ZOOM

**ENGAGE WITH:**

**Ahmad Sheeql Shah bin Abdul Samad**  
KuasaGeo Resources,  
Protem Committee,  
MyGeo

**Roziahisham Ab Wahid**  
Manager, MRT Corp Bhd

**Abd Rasid Jaapar,**  
President, IGM  
Vice President, MyGeo  
Vice President, SEGRM  
Past Vice President, MSIA

**MODERATOR**

**Faruq Syahmi,**  
Chairman, YEG Malaysia  
Secretary, MyGeo

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10.00 a.m.- Current state of Soil and rock description practice in Malaysia: personal observations

10.15 a.m.-Some observations on the practice of soil and rock description for dam and tunnel project in Malaysia

10.30 a.m.-Background and perspectives on soil and rock description in Malaysia: Are we doing the right thing and what's next?

10.45 a.m.- Forum session on way forward for soil and rock descriptions practice in Malaysia: do we need our own guideline?

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Enquiries: izalea | admin@geodream.com.my

Organiser: IGM, SEGRM  
Co-organiser: MSIA, MyGeo  
Managed by: GEODREAM

## Engineering Geological Model: Technical Paper Review by New Graduates

Three new graduates were given the task to review technical papers on engineering geological models during internship program. The program was meant as knowledge sharing for the new graduates. Reading technical papers are part of continuous professional development required for geologists to keep up breast with new technology. Reviewing and understanding technical papers are skills required by geologists for technical report preparation.



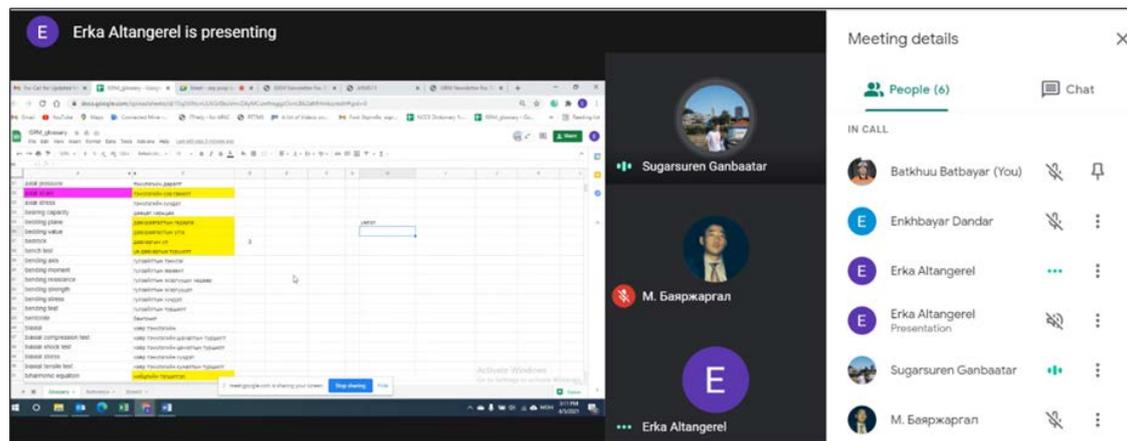
## Dr Tajul Anuar Jamaludin Memorial Seminar on September 11, 2021

The seminar was organized in memory of the late Dr Tajul Anuar Jamaluddin who passed away a year ago on 29 July 2020 at the age of 56 years old. The late Dr Tajul was an advocator of engineering geology in Malaysia. He was the bridge between academia and industry as well as the spoke person to media relating to geological disasters. The late Dr Tajul's coupling skills of images interpretation and field observations together with his involvement with many landslide investigations make him one of the finest and sought-after engineering geologists in Malaysia.

The seminar brings together local and international experts in engineering geology and rock engineering to disseminate knowledge, to share their expertise and experiences in present and future applications and development of the field. The seminar consists of 3 keynote lectures by international experts, namely Prof Dr Masahiro Chigira from Japan, Prof Dr Andrew Malone from Hong Kong, and Prof Dr Imam Sadisun from Indonesia and 15 technical lectures by local experts. All the speakers are teachers, colleagues, students, and friends to the late Dr Tajul.

## MONGOLIA

From July to August, the members of Mongolian National Group have held several online meetings on translating the ISRM Glossary of terms of Rock Mechanics and Engineering Geology into Mongolian.



The first conference of the society will be held in Ulaanbaatar in November 5, 2021. It is a joint event with 29th conference for the problems of Hydrogeology, Engineering geology and Environmental geology in Mongolia.

## NETHERLANDS

In 2021, several online events were organised and hosted by Netherland National Group.

- 6 May 2021: Ingeokring Online Quiz.
- 11 June 2021: Introduction to radioactive waste disposal and virtual tour of the Underground Research Laboratory HADES (Webinar). Speaker: Jan Rypens.
- 18 June 2021: Thermo-Hydro-Mechanical (THM) behavior of Boom Clay. Presentation on THM behavior and the characteristics of Boom clay, the different THM experiments and the PRACLAY Heater Test in particular (Webinar). Speaker: Arnoud Dizier.

## PERU

The main goal of IAPG-Peru is to raise awareness among Peruvian geologists and environmental engineers about the usefulness and application of geosciences, as well as promoting ethical actions in the development of their professional activities, aimed at sustainable development in Peru.

There are activities to be held by IAEG Peru National group every month. Currently, we are involved in the organization of the Mineral exhibition MinerLima. This event has been organized by IAPG-Peru since 2015 and is at the moment a success for greater participation of students, professionals and citizens. It involves the organizations of several conferences and crash courses on geology, mining, and other related subjects to the general and specialized public. In cooperation with Peruvian entities: UNMSM, INGEMMET and SGP, MinerLima is now a public space for the dissemination of Geoscience for all the Peruvian community.

## PORTUGAL

### 50 Years Commemorative Ceremony of the GEOTECNIA Journal, 20-21 September, Lisbon, Portugal

The Portuguese Geotechnical Society (SPG) celebrates the 50th anniversary of GEOTECNIA Journal (together with the Brazilian and Spanish geotechnical associations - ABMS and SEMSIG), with an event that took place on 20 and 21 September 2021, in person, at the Portuguese National Laboratory for Civil Engineering - LNEC, in Lisbon, PORTUGAL, with simultaneous live broadcasting. Participation is free of charge but subject to prior compulsory registration (<https://forms.gle/GcPQFYgmM8PreVEY6>).

The event, in Portuguese and Spanish, features 19 oral presentations by distinguished colleagues of the three associations (SPG, ABMS and SEMSIG), which are published in the Special Issue of GEOTECNIA, vol. 152 (<https://impactum-journals.uc.pt/geotecnia>). We believe that the diversity of the topics addressed by the highly esteemed colleagues renders this event unique in its scope and value.

The final program is available at <https://spgeotecnia.pt/uploads/geotecnia-50-anos-programafinal.pdf>.



## ROMANIA

General Assembly, 06.09.2021: due to the international pandemic situation the general assembly was held on line. New board was elected and general task was established in order to resolve the legal issues.

Continuous support for the "Octogon", student association for Engineering Geology associated to the Faculty of Geology and Geophysics; active members of ARGI presented in several sessions' aspects of their worldwide activity and support the summer field trips.

As members in the Technical Committee No. 6 "Geotechnics and Foundations", in the Technical Committee No. 1 "Natural Hazards and Risks" of the Ministry of Regional Development and Public

Administration, in the ASRO/CT 361 associated to CEN/TC 341 Geotechnical Investigation and Testing, or as consultants in the ministerial Committee for Emergency Situations of the of the same Ministry, members of our group of engineering geology concur to elaboration of laws and regulations in these fields of activity.

## **RUSSIA**

### **Awards and Prizes**

By the decision of the IAEG Executive Committee and Council, the former Chairman of the Russian national group Academician RAS, Prof. Victor Osipov has been awarded with the IAEG Honorary Membership 2020 for his great contributions to the discipline of engineering geology and the development of IAEG.

### **Conferences and workshops**

Unfortunately, due to COVID-19 pandemic, a few events have been organized by the Russian national group this year.

Members of Russian NG have organized the Conference “New Ideas and Theoretical Aspects of Engineering Geology”. The conference took place in Moscow State University in virtual format on February 4, 2021 with publication of the book of abstracts. Current problems of engineering geology have been discussed in presentations within 5 primary topics: 1) new ideas and hypotheses in engineering geology, 2) theoretical models in engineering geology, 3) new ideas, theory, and practices in the studies of soil dynamic properties, 4) digitalization and artificial intellect in engineering geology, 5) new ideas and results in case studies. Several members of Kyrgyz NG of IAEG also took part in this conference.

In the reported period, the members of the Russian national group IAEG (Dr. A. Strom and Dr. O. Zerkal) presented the reports at the international online symposia, i.e., Mediterranean Symposium on Landslides (June 7-9, 2021) and European Rock Mechanics Symposium (Eurock-Torino 2021; September 21-24, 2021). Dr. Alexander Strom shared a video presentation on the topic “Study of active faults during engineering investigations of lifelines routes” for the IAEG webinar page. Chairperson of the Russian national group, Prof. Dr. Eugene Voznesensky is a key lecturer at the 3rd European regional conference Euroengeo 2020 (Athens, Greece, October 6-10, 2021) on the topic “Characterization and Behavior of Soils”. He is going to attend the conference personally; some other members of the Russian national group, namely, O. Eremina, I. Kozliakova and A. Kazeev are participating virtually with online presentations.

After a two-year-long gap (2020 and 2021), the annual scientific conference in commemoration of academician E. M. Sergeev (Sergeev’s readings) is to be resumed in the year of 2022 by the Russian national group. The preparation for the next, 23rd conference has been started in collaboration with the Okhotin Soil and Rock Engineering Society. The event is scheduled to be held in St. Petersburg, March 31 – April 1, 2022.

### **Development of national Codes of Practice**

Several members of Russian NG actively participated in the development and expertise of several new documents in national system of Codes of Practice in geotechnical survey.

Prof. Eugene Voznesensky has developed the new version of Russian standard (GOST) for dynamic laboratory soil testing. This standard has been approved.

Several members of Russian NG took part in the development of a new edition of the Code of practice for offshore geotechnical survey and Russian national standard developed on the basis of

The new national GOST draft «Petroleum and natural gas industries. Specific requirements for offshore structures. Marine soil investigations» developed on ISO basis will be a useful document supported in general by Russian normative base but expanding a possible range of voluntary methods into well time-tested foreign approaches. These documents can be considered a toolkit annex to the Code of practice describing testing approaches beyond the scope of typical tasks.

## Publications

In 2021, members of the Russian national group have published a number of books. For example, A. Anikeev, G. Postoev, A. Kazeev and M. Kuchukov are the authors of the “Guide on construction of subsurface transport engineering structures under the conditions of karst, suffusion and landslide hazard in Moscow” (Moscow, Infa Inzheneriya Publ., 2021, 175 p.). The book “Geological risk in urbanized areas” (V.I. Osipov, Ed.-in-Chief) summarizing the long-term research at IEG RAS on this topic supported by the Russian Science Foundation has been published by RUDN Publ. D.O. Sergeev is among the authors of the book “Geosystems of gas-saturated permafrost rocks”.

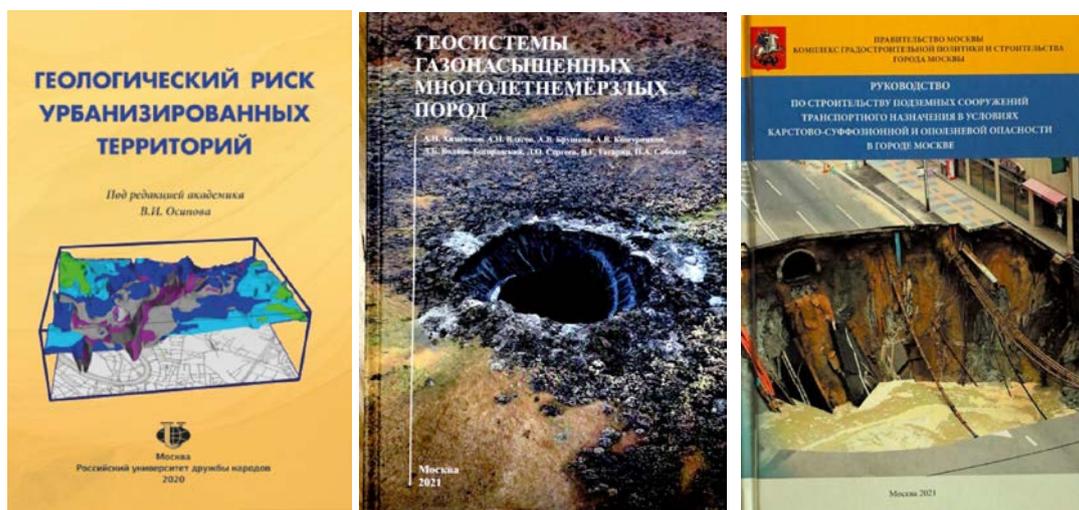


Fig. 1. The covers of the books mentioned.

## International activities

Members of the Russian national group 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).

## SINGAPORE

The 16th SRMEG AGM was held on 12 March 2021 via Zoom. During the AGM, 2 book prizes were awarded to the 2 recipients:

- Nanyang Technological University CV2013: Engineering Geology and Soil Mechanics – Lim Kai Jian
- National University of Singapore CE5104: Underground Space – Lim Chee Meng

ARC13 is co-organized by SRMEG and the Geological Society of Hong Kong. ARC13 will provide a platform for professionals to exchange the latest experiences and ideas on engineering geology, particularly on the conference theme “Engineering Geology for Sustainable Resource and Infrastructure Development”. The Conference will be held on 15 to 19 November 2021 in a virtual format.

## SLOVAK

In 2021 the IAEG Slovak National Group (SNG) has 7 members (3 with and 4 without the Bulletin).

The IAEG SNG is an independent part of the Slovak Association of Engineering Geologists (SAEG) which has 131 members ([www.saig.sk](http://www.saig.sk)). All scientific and educational activities of the SNG were coordinated with the activities of SAEG. President and secretary of the SNG is Martin Ondrášik, PhD. from Slovak University of Technology in Bratislava, Faculty of civil engineering, Department of Geotechnics.

In the year 2021 all social and scientific activities of SNG members were canceled because of the pandemic situation caused by COVID-19. The members are working on their ongoing projects in laboratories and in offices. It is also good time to write scientific papers. However, many scientists and students had the same idea, because placing a finished papers in a journal with engineering geological or geotechnical topics is really a problem. Editors have an overpressure of papers, so they accept only a few of the offered papers. Beside mentioned indoor activities the online university education is still ongoing. The reasons are various. Threat of the new version of the COVID-19 virus, limited number of students allowed to be physically present in one class during lectures and seminars, not finished reconstructions of university premises and so on.

We have no choice but to hope that the third COVID-19 wave will be the last and that the year 2022 will be filled with activities that have been canceled or moved to the post COVID-19 period. In Slovakia the top activity should be meeting of engineering geologists mainly from Czech Republic and Slovakia organized sometime in June in Hight Tatras mountains under the name Engineering geology 2022. Also engineering geologists from other countries are welcomed.

## **TURKEY**

### **General Assembly of Turkish National Group of Engineering Geology**

General assembly of Turkish Society for Engineering Geology was hold on 26th June 2021 in the congress room of the Turkish Chamber of Geological Engineering in Ankara. In the meeting, annual activity report of the executive committee and the inspection committee report of the society were explained to the members of the society.

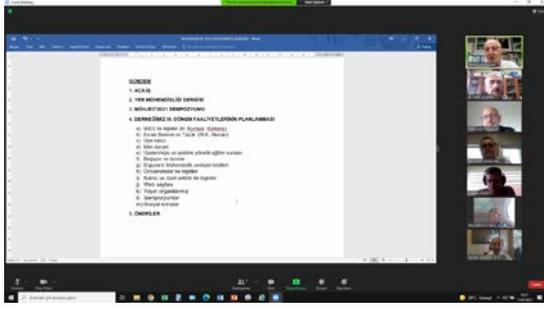
In the same meeting, new members of the Executive Committee and Inspection Committee of the Society were elected.



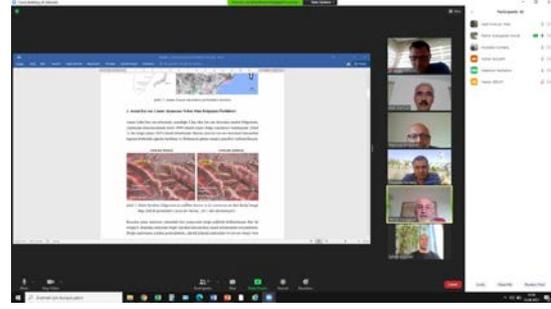
View from the General Assembly of Turkish National Group of Engineering Geology

### **Executive Committee Meetings Of Newly Elected Executive Committee**

The newly elected executive committee had a meeting on June 26, 2021 in Ankara. The executive committee had two more online meetings by means of Zoom program on July 13 and August 22, 2021 due to COVID-19 pandemic.



Zoom meeting on July 13, 2021



Zoom meeting on August 22, 2021

The western Black Sea is among our regions with the highest potential in terms of landslide density (Figure 1). We witnessed how a natural event turned into a disaster in Kastamonu Bozkurt and Sinop – Ayancık as a result of excessive rainfall falling in August 2021. In this disaster, the overflowing waters from the stream beds rose up to the second floor of the structures in the settlement areas, and the bridges built on the stream bed were collapsed and heavily damaged (Figure 2 and 3). People and vehicles on the road, woods stored next to stream bed in the settlement areas were dragged within the flood (Figure 4). Flooded river caused erosion on the heels of the structures located next to stream and caused collapse of some buildings (Figure 4). Heavy rain and flood also caused landslides occurred on the slopes (Figure 5). As a result of all these effects, 82 of our citizens lost their lives (AFAD, 2021) and great economic losses occurred.

Bozkurt settlement area (Figure 2), where floods turn into a major disaster that causes high loss of life and property, is located in the Ezine stream Basin. Ezine stream has a surface area of 379 km<sup>2</sup>, and the topographic height of the stream bed at a distance of about 10 km from the coastal part to upstream reaches 79 m, and from here to 20 km upstream reaches to about 1600 m. In the basin that receives front rainfall with these characteristics, the average annual rainfall in MGM Mahmatlar Village DMI was measured as 773 mm, the average in August of the last 5 years was 32 mm and 420 mm on 11-12 August 2021. Accordingly, the amount defined as excessive instantaneous precipitation corresponds to 55% of the average annual precipitation.

In the field studies, it has been observed that the damages are not limited to these two district centers. The socio-economic damage caused by different land use practices in the upper basins of the districts where flooding occurred to all existing sectors in our social life has reached incredible dimensions. There must be lessons to be learned from these disasters, and they must also guide us to look to the future with hope so that such disasters do not happen again.

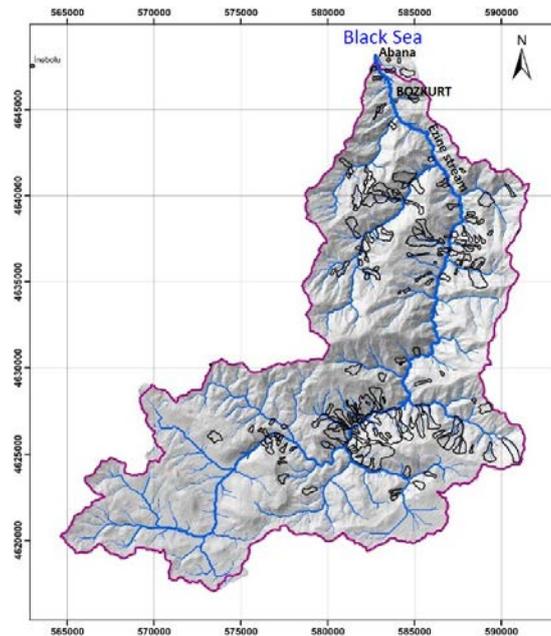


Figure 1. Historical landslide inventory in Ezine stream basin (Duman vd., 2007).



Figure 2. Flooding of Ezine stream in Bozkurt district and collapsed bridge on constructed Ezine stream bed



Figure 2. Dragged woods and sediments deposited in Bozkurt settlement area during flooding.



Figure 3. Dragged and crushed vehicles and woods in Bozkurt district and collapsed buildings due to toe erosion during flooding in Ezine stream bed



Slope failures in Bozkurt district due to heavy rain

## UK

Due to the COVID pandemic, 2020/2021 was a tough year for the EGG/IAEGUK national group with only virtual events going ahead. A summary of the events is given below:

- January - 'To 10T or Not To 10T?' Assessing the Depth of Mine Treatment
- February - The Geomaterials Engineer – A joint meeting with the British Geotechnical Association.
- April - Early Careers Event "Unknowable Risks: Health and Safety on Site"
- July – Kinematic failure of rock slopes: a day out in Al Ula, Saudi Arabia

As a result of the COVID pandemic 2020/2021, the Glossop Lecture, Annual fieldtrip and Annual conference were all postponed. In person events are now starting again with the Annual fieldtrip, at start of October. It is anticipated that this year's Glossop Lecture will be in person.

EGG/IAEGUK has three working parties established and working on:

Engineering Geology of Groundwater in Design and Construction - chaired by Ian Duncan. 96% of the chapters have been completed. Figures and plates are being finalized with an aim for the publication to be published in 2021.

- Offshore Site Characterization: Engineering Geology, Geomorphology & Geohazard - chaired by Chris Martin. Many of the chapters are completed as a first draft. The aim is to have a good complete draft, internal reviews by the end of 2021. The aim is to have this published in 2022.
- Nearshore & Coastal Engineering Geology, Geomorphology & Geohazards (CANEGGG) at Steering Group Stage, chaired by Chris Martin.
- Weathering, which is just being set up, chaired by James Lawrence

## USA

The GSA 2021 annual meeting was held in Portland, Oregon October 10-13, with online only attendance options also available. In person attendees were required to have a COVID vaccination and receive a negative COVID test prior to travel. GSA's 2022 annual meeting will be in Denver, Colorado, October 9-12.

AEG's 2021 annual meeting was held at the Westin Riverwalk in San Antonio, Texas September 20-26. Attendees were required to either be fully vaccinated for COVID or submit a negative COVID test every 48 hours during the meeting. AEG's 2022 annual meeting will be held at Planet Hollywood in Las Vegas, Nevada, September 13-17.

AEG continues to provide one to two monthly webinars 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. Recordings of the webinars are archived and available on the AEG website.

AEG student chapters and "Technical Working Groups" remain active. Key faculty members are essential to the formation of these student chapters; no-cost student memberships also appear to be a significant encouragement.

The AEG Foundation <http://www.aegfoundation.org> administers twelve student scholarship funds and seven grant programs for professionals. Foundation assets have grown to the current amount of over \$1,050,000 at the end of Fiscal Year 2021.

AEG conducts two activities with the EGD/GSA: the Richard H. Jahns Distinguished Lecture in Engineering Geology and co-publication of the Environmental and Engineering Geoscience Journal. Richard Wooten is the 2021-2022 Jahns Lecturer. The joint AEG/GSA journal Environmental and Engineering Geoscience is a quarterly publication of peer-reviewed articles and book reviews. Submissions are encouraged.

## VIETNAM

VAEGE has held the latest national conference on December 12, 2020, Dr. Ta Duc Thinh was re-elected VAEGE President for the 2020-2025 term. A major international activity in 2021 by VAEGE is co-organizing with EAGE the 4th Asia- Pacific meeting on Near-surface geoscience and geoengineering in HCM City this year (<https://eage.eventsair.com/4th-ap-meeting-on-near-surface-geoscience-engineering/>) from 30/11 to 3/12/2021. Due to COVID-19 situation in the South of Vietnam this conference is decided to be in full virtual mode.

Vietnam National Group put forward some suggestions to IAEG Council Meeting on October 7, 2021, which were

- To create a digital platform to facilitate the online reporting/updating the national group activities instead of reporting by email attachment, or in other words we should make a digital transformation within IAEG.
- To promote an online/digital voting system
- To promote an online membership application and payment.
- To encourage setting of the IAEG student chapters at national universities to promote better Engineering and Environment Geology (EEG), similar to EAGE, SEG etc.
- Increase the collaboration in research and education on EEG
- National group-dedicated BOEG Special Issues for their specific EEG problems. This would be a good way to attract more membership to IAEG.



## EVENTS OF COMMISSIONS

### COMMISSION 17

- 6th International Stone Congress was held on, 24-27 August 2021 in İzmir, Turkey, Organized by Chamber of Geology Engineers.
- Workshop Mineral Standard Reporting&Competent Person in the Mining Industry, Organized by The European Federation of Geologists (EFG), Pan-European Reserves and Resources Reporting Committee (PERC), Italian National Council of Geologists (CNG) and AlpiConsult Stones, 24 June 2021, Online Event
- Responsible Raw Materials 2021 Conferences: ESG Toolbox for Responsible Sourcing, 10-14 May 2021, Organized by Satarla, Online Event
- Responsible Mining and Sourcing of Materials Online Course, 16-17 May 2021, Organized by Satarla
- Integrated Risk Management in Mining Online Course, 3-4 June 2021, Organized by Satarla

### COMMISSION 21

Engineers, has been testing and evaluating several configurations of passive ground freezing devices to optimize their performance and decrease installation costs. A series of reports are due in 2023 with regards to this collaboration.

Our colleagues from Russia have been busy studying the influence of change climatic and geocryological conditions in the permafrost regions as well as advancing technologies such as electric resistivity tomography (ERT) surveys to rapidly characterize conditions in discontinuous permafrost. ERT is more economical than using borings for full exploration of a traverse across the tundra. Additionally, it's non-invasive and does not leave a lasting scar on the permafrost. Additionally, the pace at which the permafrost soils are warming is being investigated so that hazards can be anticipated and can either be prevented or controlled.

The Arctic is warming two to three times as fast as the more temperate zones on the planet. There are places where permafrost is not-so-permanent now. While living in a slightly warmer climate might seem more palatable to 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 for developments on permafrost.

### COMMISSION 24

On May 7, 2021, Prof. Chengxuan Tan and Changbao Guo, the memberships of the IAEG-C24, organized a training meeting on geological disaster monitoring and early warning field inspections. The main content of the training is the development of geological disasters in Tibet, Fujian and other places, and the introduction and installation of monitoring instruments.

### COMMISSION 28

C28 has planned a workshop on October 8 at the 3rd European Regional Conference of IAEG – 7-10

October 2021, Athens. The DISCUSSION TOPIC is the one that has been selected by the commission members after the email-meeting mentioned in section 3, that will be the topic for the year 2021 and 2022 as well. The topic is: 3D geological modelling development: methods to assess its reliability. At the conference in Athens, C28 members discussed their past experiences on this topic to introduce the critical points to be discussed and developed.

## **COMMISSION 29**

### **The 13th China Engineering Geology Summit**

From April 12 to 15, 2021, the 13th China Engineering Geology Summit was successfully held in Nyingchi, Tibet. The conference was hosted by the Geological Society of China (CGS), organized by Engineering Geology Committee, CGS, Institute of Mountain Hazards and Environment (IMHE), Chinese Academy of Sciences, Chengdu, and co organized by Tibet University. The theme of the forum was "Science and Technology to Support the Construction and Operation Safety of Sichuan Tibet Railway". More than 100 well-known experts in the field of engineering geology of scientific research institutes and railway survey, design and construction units were invited to participate in the forum. The forum consists of four parts: scientific field investigation, invited reports, special seminars on discipline development and education. Professor Shengwen Qi made a welcome speech on this forum.



### **Completing IAEG Commission Evaluation Form 2021**

The Evaluation Form of C29 was completed and submitted by 30 June 2021. There are 53 current members, of which 16 members are newly joined in Commission 29. The goals of the Commission are as follows: 1) Establishing the professional activity plans, providing scientific and technological development proposals on the structure and behavior of soil and rock mass, and recommending excellent geologists in the relative research areas to IAEG. 2) Advancing and developing the scientific theories and methods on the structure and behavior of soil and rock mass, fostering, and extending the application of advanced technology to engineering practice.

In the past year, this Commission mainly focuses on following activities: 1) Co-organizing symposia for international or national engineering geological conferences, organize workshop of C29 focus on the behavior and structure of soil and rock mass. 2) Inviting scholars from other countries to participate in some studies. 3) Establishing some cooperative research bases with geo-parks.

The commission members had a tightly communication during the past year between commission members focusing on the scientific problems supported by some Major or Key Programs. About 12 main Commission meetings has been co organized or participated by the Commission since 2015. And one special issue "Advances in Rock Mass Engineering Geomechanics" had been published in Engineering Geology, 2019.

### **One workshop to be held by C29**

A workshop of C29 focused on the behavior and structure of soil and rock mass was held in Athens, Greece on October 7th, 2021. The President of C29, Prof. Shengwen Qi, chaired the workshop.

### **Co-chair invitations for session at IAEG XIV Congress 2022**

The XIV IAEG Congress of the International Association for Engineering Geology and the Environment will be held in Chengdu Century City New International Convention and Exhibition Center, Chengdu, China from September 14 to 20, 2022.

Based on the theme of “Engineering Geology for a Habitable Earth”, the congress is expected to enhance the disciplinary and research development of international engineering geology and the environment, and contribute to the advancement of major projects, ecological progress, and habitable earth with research and discussion in the engineering geology and global climate change, geological hazard assessment and prevention, geotechnical properties of rock and soil mass, engineering geology and the environmental issues concerning marine, transportation, urban and ecological environment protection in major projects, engineering geology and resilience engineering construction, intelligent engineering geology, and new theories, methods, and techniques in engineering geology, etc.

C29, will hold a session entitled “Geotechnical Properties of Rock and Soil Mass” at the XIV IAEG Congress, and Profs. Shengwen Qi, Sabatino Cuomo and Lihui Li will convene this session.

The General Secretary of C29, Prof. Lihui Li, has been invited to be the Theme Co-chair of the session “Preservation of Cultural Heritage and Engineering Geology” at the XIV IAEG Congress.

### **COMMISSION 32**

C32 had contributed a rural engineering geological lens to the initial drafting of Commission. C25’s drafting of a guideline on Engineering Geological Models (EGMs). C32 awaits further news on progress with this.

A paper was requested by the Engineering Group of the Geological Society of London (GSL) for their postponed Annual Conference 2020 was prepared entitled e “Reducing Future Climate Impact on Rural Infrastructure in Developing Countries; The Role of Engineering Geology”. This paper is being revised for acceptance.

### **COMMISSION 35**

In 2021 we received the communication that the paper has been one of the most readed of the Bulletin of Engineering Geology and the Environment in 2020; furthermore, the paper is collecting a high number of citations that made him a “Highly Cited Paper” in Web of Science for the period January/February 2021. As mentioned in the website, Web of Science Highly Cited Papers are manuscripts that received enough citations to place them in the top 1% of their academic fields based on a highly cited threshold for the field and publication year.

In 2021, The Commission continued to work at the organization of the IAEG Summer School that unfortunately has been postponed to 2022.

### **COMMISSION 36**

1. C36 work team and members participated in field investigation of expansive soil landslide disaster risk reduction in Anhui and Guangxi province, China.



Field investigation in Anhui Province



Field investigation in Guangxi Province

2. C36 organized a symposium on the cracking characteristics of unsaturated expansive clays. More than 40 members discussed the field capture, laboratory experiments, modelling as well as treatment methods of cracks in unsaturated clay.



3. The number of core members of C36 has further expanded. In 2021, Prof. Yong He, Prof. Long Xu, Prof. Pengju Qin, Prof. Chuang Yu and other professors or researchers have been accepted as the member of Commission 36 of the IAEG. By now, there are about 50 core members from various countries working for C36.

## COMMISSION 37

Due to the ongoing and fluid situation with COVID-19, a meeting was not possible. However, the tasks continued.

### 1. Nomenclature: Rate of Movement

Chair: Prof. Hengxing Lan ([Lanhx@igsnrr.ac.cn](mailto:Lanhx@igsnrr.ac.cn))

Finalized and in the process of publication in UNESCO languages and other popular languages.

### 2. Nomenclature: Water Conditions

Chair: Dr. Ann Williams ([ann.williams@beca.com](mailto:ann.williams@beca.com))

Initial draft has been circulated and discussions are ongoing regarding some suggestions presented. Current working on translations.

### **3. Nomenclature: Types of Material**

Chair: Prof. Kuroschi Thuro ([thuro@tum.de](mailto:thuro@tum.de))

Under development. Current working draft is shown in the appendix.

### **4. Nomenclature: Landslide Risk**

Chair: Prof. Jordi Corominas ([jordi.corominas@upc.edu](mailto:jordi.corominas@upc.edu))

Finalized, in the process of publication.

### **5. Nomenclature: Type of Landslide**

Chair: Prof. Alexander Strom ([strom.alexandr@yandex.ru](mailto:strom.alexandr@yandex.ru))

Inclusion of special types of rock avalanche is under discussion and sub-committee is being set up.

### **6. Nomenclature: Landslide Volume**

Chair: Dr. Phil Flentje ([pflentje@uow.edu.au](mailto:pflentje@uow.edu.au))

The landslide volume classification scheme has been proposed and under development in the light of comments.

Please refer to <https://www.dropbox.com/s/ycg6d5gjb81rr5p/C37%20Appendix.pdf?dl=0> for the details of all the tasks.

## **COMMISSION 38**

Virtual meetings of C38 took place in 2021 to promote the work of the Commission and facilitate the preparation of scientific papers. Two working groups were formed as

- 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

C38 organized a virtual workshop on October 6, 2021, during the EUROENGE02020 Conference in Athens. The sessions of the workshop were related to a) rock slopes hazards and b) rock mass discontinuity identification with innovative tools.

## **COMMISSION 39**

In 2021, the NOA Commission remained active, while meeting virtually on a monthly conference call. We remain steady with participation from multiple countries including Australia, Italy, and the USA.

A few minor changes were made to the focus of our sub-groups (Working Groups) tasked to further global guidance document recommendations:

- Field Methods & Sampling
- Laboratory Analysis Methods (PLM, TEM, SEM)
- Construction Design and Asbestos Dust Mitigation Measures (for construction sites, employee protection, public protection, minimizing air emissions)
- Definitions of terminology / glossary development (added in 2021)

The group for Erionite (emerging & currently non-regulated elongate mineral with reportedly similar health effects as the 6 regulated asbestos minerals) was paused due to a reduction in urgency to advance guidance documents for this specific mineral.

The Commission maintains its own website to more efficiently relay information, post links, and share images (Find us at <http://noa-emp.info>)

### **Monthly Meetings**

Our group is currently meeting monthly online (which works best for connecting with our group members in the USA, Italy, and Australia).

### **Meetings and Events:**

Events remain mostly on-hold due to COVID and are expected to resume in early 2022.

Two NOA presentations will be included in the AEG Annual Meeting in San Antonio, Texas, September 2021. A limited number of attendees are expected due to a high number of COVID cases throughout the USA.

### **Looking Forward:**

#### **Partnership with University of Torino, NOA Research Program (INAIL BRiC 2019)**

IAEG NOA Commission Vice President (Dr. Francesco Turci) and his research group have recently been awarded a large research grant to study NOA, some of which may be performed in the USA and Italy. Committee members will provide support for this effort. He has asked the members of the IAEG Commission to assist in and provide guidance for this new project and the collaboration for co-designing a PhD student's secondment in USA has been established.

#### **Proposal for an EGU Session: April 3-8, 2022**

Commission members have submitted a proposal to European Geosciences Union to hold a symposium session titled: "Mineral particles and fibres: bridging minero-chemistry to occupational and environmental strategies for health hazard control" during their meeting in Vienna, Austria in Spring 2022.

#### **AEG San Francisco Chapter NOA Symposium – postponed to Spring 2022**

We remain in the early planning stages on an in-person NOA Symposium focusing on NOA issues in California. We expect to begin accepting abstracts in late Winter, pending COVID Delta variant mitigation effectiveness in the USA.

# 10 13<sup>th</sup> Asian Regional Conference of IAEG



IAEG-ARC13 Organizing Committee continues to monitor evolving factors relating to the COVID-19 pandemic. The evolving situation continues to throw up new uncertainties and due to the need to guarantee attendee safety, it is decided that the meeting will be conducted in an all virtual setting instead. We look forward to having you join us for this fully online event.

## Conference Information

Date : November 16-18, 2021

Website: <http://www.iaeg-arc13.org/>

E-mail: [iaeg-arc13@meetmatt.net](mailto:iaeg-arc13@meetmatt.net); Tel : +65-6472-3108 ; Fax : +65-6472-3208

## Schedule

Date/Time	Tue-16 Nov	Wed-17 Nov		Thu-18 Nov	
AM1	Opening Ceremony Keynote #1	Keynote #3		Keynote #5	
AM2	AM Presentations	AM Presentations	Poster Q & A	AM Presentations	Poster Q & A
PM1	Keynote #2	Keynote #4		Keynote #6 Panel discussion	
PM2	PM Presentations	PM Presentations	Poster Q & A	Closing Ceremony	

## Topics

- Applied Geomorphology and Structural Geology
- Soil Mechanics and Geotechnical Engineering
- Rock Mechanics and Underground Space
- Site Investigation and Geological Model
- Slope Stability and Landslides
- Geo-hazard Engineering and Risk Assessment

## Special Topics

S1 - Numerical and Experimental Advances in Multiscale Failure Analysis in Engineering Geology

S2 - Environment and Engineering Geophysics

S3 - Environmental Processes in Geotechnics

S4 - Engineering Geology for Tunnels and Underground

S5 - Karst Geology and Environmental Geotechnics

S6: Rock Mechanics for Geothermal Energy

### Registration

SGD 400---paid by September 28, 2021

SGD 450---paid after September 28, 2021

Please refer to [https://www.iaeg-arc13.org/public.asp?page=fees\\_and\\_registration.asp](https://www.iaeg-arc13.org/public.asp?page=fees_and_registration.asp) for details.

### Keynotes



**Raymond W.M.**

**CHEUNG**

HK Geotechnical  
Engineering Office



**Jian CHU**

Nanyang Technological University



**Hsein JUANG**

Clemson University and National Central  
University, Editor in Chief of Engineering  
Geology



**Jonny RUTQVIST**

Lawrence Berkeley  
National Laboratory



**Mark D. ZOBACK**

Stanford University



**Shengwen QI**

Chinese Academy of  
Sciences, Beijing

# 11 XIV IAEG CONGRESS



The XIV Congress of the International Association for Engineering Geology and the Environment will be held in Chengdu Century City New International Convention and Exhibition Center, Chengdu, China from September 14 to 20, 2022. Based on the theme of Engineering Geology for a Habitable Earth, the congress is expected to enhance the disciplinary and research development of international engineering geology and the environment, and contribute to the advancement of major projects, ecological progress, and habitable earth with research and discussion in the engineering geology and global climate change, geological hazard assessment and prevention, geotechnical properties of rock and soil mass, engineering geology and the environmental issues concerning marine, transportation, urban and ecological environment protection in major projects, engineering geology and resilience engineering construction, intelligent engineering geology, and new theories, methods, and techniques in engineering geology, etc.

A new logo is created for the congress. The new logo selects the Sun God Bird gold decoration shape and Geological Hazards (Mountain Section, Geological Collapse, Seismic Waveform Map) of mountain profile. In Dujiangyan water conservancy project, Anlan Bridge is one of the five famous ancient cable bridges in China. It spans the water diversion between the inner river and the outer river. The water and the shape of the bridge are extracted to complete the design of the 14th IAEG logo.



## Contact Information

Website: <https://iaeg2022.org/>

Venue: Chengdu Century City International Conference Center

## Session and Field Course

Yonghong Luo: [445890689@qq.com](mailto:445890689@qq.com); Peng Zeng: [zengpeng15@cdut.edu.cn](mailto:zengpeng15@cdut.edu.cn)

## Sponsorship:

Dongpo Wang: [wangdongpo@cdut.edu.cn](mailto:wangdongpo@cdut.edu.cn); Shenghua Cui: [cuishenghua18@cdut.edu.cn](mailto:cuishenghua18@cdut.edu.cn)

**Address:** No. 1 Dongsan Road, Erxianqiao, Chenghua District, Chengdu, Sichuan, China

Tel: 028-84073193; Email: [IAEG2022@cdut.edu.cn](mailto:IAEG2022@cdut.edu.cn)

**Note:** For registration and payment, please refer to follow-up notification

Feel free to distribute this notification with your colleagues, other academic networks and organizations.

## General Scientific Themes

- Climate Change Mitigation and Adaption
- Engineering Geology and Green Development

- Engineering Geology and Environmental Disaster
- Mechanism, Prevention and Assessment of Geological Disasters
- Environmental Engineering Geology and Ecosystem Protection
- Geotechnical Properties of Rock and Soil Mass
- Traffic Engineering Geology and Sichuan-Tibet Railway Construction
- Energy Engineering Geology and Deep Earth Resource Exploitation
- Urban Engineering Geology and Underground Space Utilization
- Marine Engineering Geology and Coastal Development
- ....

### Full Paper

The Organizing Committee has received 451 full paper abstracts, and 446 abstracts have been accepted. Please refer to <https://easychair.org/my/conference?conf=iaeg2022> for submitting, and the deadline is November 15, 2021.

### Co-Sponsors

There are 9 co-sponsors confirmed till now, and more will be added. Please contact [wangdongpo@cdut.edu.cn](mailto:wangdongpo@cdut.edu.cn) / [cuishenghua18@cdut.edu.cn](mailto:cuishenghua18@cdut.edu.cn) for joining.

### Call for Oral Presentation/Poster Abstract

The Organizing Committee is calling for Oral Presentation and Poster Abstract Submission. It will be open from November 15, 2021, and closed by April 1st, 2022.

### Conference Schedule

Due to the need for regular epidemic control, the congress adopts a hybrid mode of online and offline. The congress is preliminarily arranged as follows:					
<b>September 14</b>	<b>September 15</b>	<b>September 16</b>	<b>September 17</b>	<b>September 18</b>	<b>September 19-20</b>
<b>Registration</b>	<b>Opening Ceremony &amp; Keynote Speech</b>	<b>Sessions</b>	<b>Sessions</b>	<b>Sessions &amp; Closing Ceremony</b>	<b>Field Trip</b>
<b>Note:</b> The schedule may be adjusted later, please refer to the follow-up notice.					

### Important Dates

November 15, 2021	Full-length paper submission deadline
November 15, 2021-April 1, 2022	Oral presentation and poster submission notice
October 30, 2021	Full-length paper submission deadline
January 3, 2022	Oral presentation and poster submission notice
April 1, 2022	Oral presentation and poster submission deadline
September 14, 2022	Online registration deadline
September 15, 2022	IAEG Congress

# 12 MEETING INFORMATION

Lisbon, Portugal, November 14-17, 2021 (Virtual Conference)

17 CNG

## 17º Congresso Nacional de Geotecnia

11º Encontro de Jovens Geotécnicos  
10º Congresso Luso-Brasileiro de Geotecnia

14 - 17 • novembro • 2021 | Lisboa • LNEC



The 17th National Congress of Geotechnics (17CNG) will be held ONLINE from 14 to 17 November 2021, from the LNEC premises in Lisbon. The Congress will be held ONLINE from 14 to 17 November 2021, from the LNEC premises in Lisbon.

### Objective

The objective of 17CNG is to promote the dissemination of knowledge and the technical and scientific debate in the field of geotechnology, in particular in the disciplines of engineering geology and soil and rock mechanics, in all activities of interest to it, from research and teaching, through design, construction, supervision, maintenance and exploitation of works, up to the use of new technologies. The theme of the Congress will be "Geo, science and technology".

### Theme

The 17CNG will discuss a diverse set of topics, highlighting the following: T1 Prospection and Geotechnical and Environmental characterization T2-Behaviour of geomaterials, Physical modelling and Numerical T3 -Foundations, excavations, Underground T4-Treatment and Strengthening of T5-T6-Geotechnic Transport T7-Rehabilitation T8-Sustainability T9 Information Technologies and Support for T10-Risk Construction

### Conference Information

Website: <http://17cng2020.lnec.pt/>; Email: [17cng2020@lnec.pt](mailto:17cng2020@lnec.pt); Tel: + 351 21 844 38 59

### Seventh Lesson Victor de Mello

During the 10th Luso-Brazilian Congress of Geotechnics, Professor Oscar Varden (Argentina), will give a lecture entitled Lessons Learned from Dams Construction in Patagonia.

### 11th meeting of young Geotechnicians (11EJG)

Meeting of Young Geotechnicians, will be online and will take place on the afternoon of November 14 of 2021 (Sunday), preceding the work of the 17th National Congress of Geotechnics (17CNG) and the 10th Luso-Brazilian Congress of Geotechnics (10CLBG).

During the meeting, competing jobs will be presented to the awards for young Geotechnicians. The purpose of the Jose Folque Prize is to distinguish works which contribute to the progress of technical and scientific knowledge in the field of the specialities of Geotechnics. Its regulation is available on the website of the Portuguese Society of Geotechnics ([www.spgeotecnia.pt](http://www.spgeotecnia.pt)).

### 10th Luso-Brazilian Congress of Geotechnics (10CLBG)

The main objective of the congress is to provide Brazilian and Portuguese geotechnics with a partnership that allows them to take an up-to-date view of national realities in this field and to make the most recent progress in the field of Geotechnics clear.

Congress will be subordinated to the theme of "Security of Geotechnical Works".

The previous Luso-Brazilian Congress of Geotechnics (9CLBG) took place in parallel with the Brazilian Congress of Land Mechanics and Geotechnical Engineering (COBRASEG2018), in Salvador, Brazil, with the theme "Geotechnics and Urban Development".

#### Speakers of 10CLBG



António Viana da  
Fonseca



Alberto Sayão



João Bilé Serra



Roberto Quental  
Coutinho

#### Speakers of 17CNG



Kenichi Soga



Luís de la Torre



Victor Correia



RMarcos Arroyo

### India, December 9-11, 2021 (Virtual Conference)

#### EGCON 2021



Keeping pace with present time in prevailing circumstances, ISEG in association with NHPC proposes to organize a three days International Conference on "Recent Advances in Geotechnics (EGCON 2021)" from 9th – 11th December, 2021 through Virtual Mode. Main purpose of this conference is to provide a platform to deliberate upon recent developments in the field of Engineering Geology, Engineering Geophysics, Earthquake Engineering, Remote Sensing and other related areas for development of infrastructure projects.

Apart from regular theme-based presentations and lectures by the speakers from different related fields such as smart city development, drone based investigations, advanced emerging investigation techniques, EGCON 2021 shall be providing best opportunity to researchers and entrepreneurs in this field to listen and interact with the key-note speakers who will share their vast experiences and give insight on most-relevant technical issues.

Technical papers are invited from the experts engaged as per themes of the EGCON 2021. All accepted papers and extended abstracts shall be published in the proceedings of the conference.

Conference Information

Website: <http://egcon2021.com/index.html>

S L KAPIL: [india.seg@gmail.com](mailto:india.seg@gmail.com); 0129-2255805;

VACHASPATI PANDEY: [vpnhpc@yahoo.com](mailto:vpnhpc@yahoo.com); 9454218451

VIPUL NAGAR: [vipul.nhpc@gmail.com](mailto:vipul.nhpc@gmail.com); 7086071155

### Keynote Speakers



**Dr. Martin Wieland**  
Seismic Aspects  
of Dam  
Design (ICOLD)



**Dr. Wu Faquan**  
Secretary General  
of IAEG



**Dr. M. H. Loke**  
Geotomo Software  
Sdn Bhd



**Dr. Louis N.Y. Wong**  
The University of  
Hong Kong



**Richard Donnelly**



**Dr. Rajinder Bhasin**  
Norwegian  
Geotechnical Institute



**Dr. Bineshian Hoss**  
Amberg  
Engineering AG



**Dr. M. H. Loke**  
Geotomo Software  
Sdn Bhd



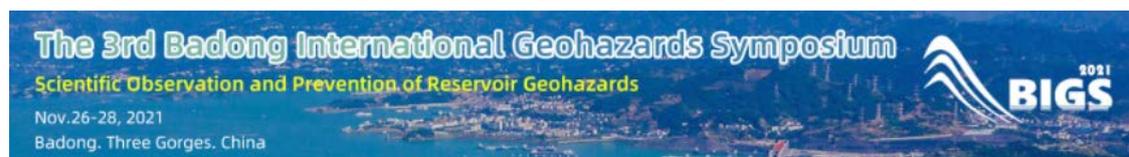
**Dr. Louis N.Y. Wong**  
The University of  
Hong Kong



**Eric Halpin**

### Badong, China, November 26-28, 2021

#### The 3<sup>rd</sup> Badong International Geohazards Symposium



The 3rd Badong International Geohazards Symposium (BIGS2021) will be held in Badong County, Hubei Province, China, from November 26 to 28, 2021. Based on the theme of “Scientific Observation and Prevention of Reservoir Geohazards”, the symposium will be featured with academic reports and field trip. The academic reports include keynote speeches, invited reports, poster presentation and free discussion. The symposium is expected to enhance further international cooperation, strengthen

academic exchanges and friendship among worldwide experts and scholars in the research field of geohazards, and contribute to the advancement of research topics including evolution process of geohazards, new technologies of geohazards observation, big data and artificial intelligence of geohazards, prediction & forecasting of geohazards, and prevention & control techniques of geohazards, etc. We warmly welcome the worldwide researchers and engineers to participate in this academic event.

### Conference Information

Website: <http://www.bigscug.org/en-us/index.html>

Information Inquiry: Hanwen Zhou Tel: (+86) 02767884553

Field Trip Inquiry: Jing-e Wang Tel: (+86) 02767885197

Abstract and Poster Exhibition Submission Inquiries: Shu Zhang Tel:(+86) 02767884006

Symposium Transportation & Accommodation Inquiries: Junqi Liu Tel:(+86) 02767884006

### Important Dates

**Nov. 26, 2021**-Symposium check-in & on-site registration

**Nov. 26-28, 2021**-The 3rd BIGS2021

Theme: Scientific Observation and Prevention of Reservoir Geohazards

### Topics:

- Evolution process of geohazards
- New technologies of geohazard observation
- Big data and artificial intelligence of geohazards
- Prediction & forecasting of geohazards
- Prevention & control techniques of geohazards

### Call for abstracts

Attendees are encouraged to freely select topics around the theme and topics of the symposium and submit word versions of their abstracts in English on the conference website for abstract submission by October 20, 2021. Submitted and accepted abstracts will be collected and printed in an abstract collection.

### Naples, Italy, June 22-24, 2022

**3rd International Symposium on Geotechnical Engineering for the Preservation of Monuments and Historic Sites**



The possibility of finding in practice an acceptable equilibrium is linked to the development of a shared culture. For this reason, the International Society of Soil Mechanics and Geotechnical Engineering promoted over 30 years ago an ad hoc Committee (on Preservation of Monuments and Historic Sites), as suggested by Jean Kerisel and Arrigo Croce. Since that founding period, a number of international and regional symposia have been organised, and in recognition of his pioneering work a honour lecture has been dedicated to Jean Kerisel. The first Kerisel Lecture was delivered at International Conference on Soil Mechanics and Geotechnical Engineering (ICSMGE) in 2013 in Paris; the second one at the ICSMGE in Seoul in 2017, and the third one will be offered during next International Conference of the TC301, which is now announced and will be held in Naples in June 2022, following the successful tradition started with the previous ones in 1996 and 2013.

#### Symposium topics:

- Principles Of Conservation, Maintenance Strategies, Case Histories
- The Knowledge: Investigations and Monitoring
- Seismic Risk, Site Effects, Soil Structure Interaction
- Effects Of Urban Development and Tunnelling on Built Heritage
- Preservation Of Diffuse Heritage: Soil Instability,
- Subsidence, Environmental Damages

#### Conference Information

Website: <https://tc301-napoli.org/>;

Venue: Conference Centre of the University of Naples Federico II Via Partenope, 36, Naples, Italy

**Opening Lecture**  
Calo Viggiani, Italy



**3rd Kerisel Lecturer**  
Alessandro Flora, Italy



#### Keynote Lectures



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